



# Bolzano's Aesthetic Cognitivism

**ABSTRACT:** *This article examines Bolzano's aesthetic cognitivism. It argues that, while reminiscent of German rationalist aesthetics and hence potentially appearing rigid and outdated, Bolzano's version of cognitivism is, in fact, highly innovative and more flexible than the cognitivism championed by the rationalists. He imports from the rationalists the idea that aesthetic appreciation and creation are rule-governed, yet does not construe rule-following and engaging in free aesthetic activities as mutually exclusive. Furthermore, thanks to his nuanced treatment of the interaction between aesthetic values and other types of values, Bolzano's aesthetic cognitivism presents a fresh alternative to contemporary versions of aesthetic cognitivism.*

## Introduction

This article examines Bernard Bolzano's (1781–1848) aesthetic cognitivism. While reminiscent of German rationalist aesthetics and hence potentially appearing rigid and outdated, Bolzano's version of cognitivism is, in fact, highly innovative and more flexible than the cognitivism championed by the rationalists. Furthermore, it is significantly more nuanced than many of its twenty-first-century counterparts.<sup>1</sup>

The initial focus of the article will be on identifying the features of Bolzano's philosophy that contribute to the possible misperception that it is rigid and examining the points of disagreement between Bolzano and the German rationalists. It will be argued that Bolzano, despite incorporating various rationalist elements into his theory of aesthetics, developed a distinct brand of aesthetic cognitivism. The uniqueness of this cognitivism is due to two primary features. Examination of the first feature will demonstrate how Bolzano's cognitivism is more flexible than that of the German rationalists, while discussion of the second feature will illustrate the fresh and nuanced perspective that he offers in comparison to contemporary accounts. Specifically, Bolzano concurs with the rationalists that there are rules governing aesthetic appreciation and creation but also maintains that appreciators and artists enjoy certain freedoms that are integral to their activities. For Bolzano, rule-following and engaging in free aesthetic activities are not mutually exclusive. Additionally, he acknowledges that artworks can serve various purposes and embody multiple values.

<sup>1</sup> I am grateful to the audiences at the Readers-Meet-Readers session on Bernard Bolzano's *Essays on Beauty and the Arts* at the 2023 American Philosophical Association Eastern Division meeting and the 2023 European Society for Aesthetics Conference. Special thanks to Stacie Friend, Andrew Huddleston, James Harold, Madeleine Ransom, Sandra Shapsay, and Clinton Tolley for their insightful comments. I deeply appreciate Dominic McIver Lopes' guidance and valuable critique of my draft, Jakob Norberg's thoughtful feedback, and the two anonymous referees' suggestions.



Yet he asserts that aesthetic value—which is not merely a hedonic value, a subspecies of the pleasant or agreeable, but also a particular kind of cognitive value realized by works we deem beautiful—is independent of and unaffected by other forms of cognitive value, except under specific conditions. These conditions occur when the work or object illuminates moral or religious ideas, thereby linking its aesthetic value to its moral or religious significance. These two features, liberal rule-following and contextual autonomism, render Bolzano’s theory a fresh and valuable contribution, not only in its own time but also in the contemporary context.

## 1. Bolzano and the German Rationalists

Bolzano produced his works on aesthetics during a time when cognitivism was fashionable, though it was not the rationalist form that was in vogue. A cognitivist turn in German philosophical aesthetics, following the heyday of romanticism, marked the first half of the nineteenth century (see Guyer 2014). The Kantian influence was clearly visible in the cognitivist works of F.W.J. von Schelling, Arthur Schopenhauer, and G.W.F. Hegel. However, by replacing the idea of free play—which was constitutive of the aesthetic experience for Kant—with a cognitive response that lacked an emotional component, and by reintroducing truth back into the aesthetic experience, these nineteenth-century philosophers produced new types of aesthetic cognitivism. In the 1840s, cognitivism remained the default position, and Hegelianism dominated the German aesthetic scene, mainly through the works of Friedrich Theodor Vischer, Karl Rosenkranz, and Hermann Rudolf Lotze. It was during these years that Bolzano composed his works on aesthetics. His output included three essays: one on the sublime (which was lost); another on the concept of the beautiful, written around 1842 and published in 1843; and a third on the fine arts, written between 1843 and 1847 and published posthumously in 1849 (see Rusnock and Šebestík 2019: 548).<sup>2</sup> In his last years, Bolzano continued to work on aesthetics, leaving behind fragments from two essays—“Arten des Schönen” [Kinds of beauty] and “Verschiedene in die Aesthetik gehörige Begriffe, welche sie auch noch mit andren Wissenschaften gemein hat” [Various concepts that belong to aesthetics and are held in common with other sciences] (see Bolzano [2021] for these articles and Livingston [2023] for a recent review). In Bolzano’s work, we see a defense of aesthetic cognitivism, but the version that he defends is quite different than what is found in German Idealism.

One main identifying marker of aesthetic cognitivism is the belief that aesthetic experience is actual cognition. However, aesthetic cognitivism comes in many flavors, each with its own additional commitments. Bolzano’s cognitivism has a German rationalist flavor to it and is reminiscent of the accounts of earlier German rationalists like Christian Wolff and notably Johann Christoph Gottsched. As a result, Bolzano’s approach may appear constrained, rigid, or even archaic, a perception rooted in

<sup>2</sup> References to Bolzano’s works on aesthetics follow the 2023 Hackett translation and are to the abbreviated title of the work, section number, and page number. The following abbreviations are used: CB: *On the Concept of the Beautiful* and CFA: *On the Classification of the Fine Arts*. References to Bolzano’s *Theory of Science* provide the abbreviated title (WL) and section number.

criticisms by figures like Immanuel Kant, Friedrich Nietzsche, Benedetto Croce, and R. G. Collingwood, as well as the *Sturm und Drang* movement, all of whom challenged the rigidity and rule-guided appreciation often associated with these earlier rationalist accounts (see Beiser 2009: 12–23). It is important to clarify that I do not endorse this bias against German rationalist aesthetics. In fact, scholars like Frederick C. Beiser (2009) in *Diotima's Children* and Stefanie Buchenau (2013) in *The Founding of Aesthetics in the German Enlightenment* have significantly advanced the rehabilitation and appreciation of these theories. Nonetheless, the unwarranted stereotype persists, and it is crucial to assert that it should not be applied to Bolzano, despite impressions that he might be reverting to a form of cognitivism akin to that of the earlier German rationalists. Before dismissing this impression, we should examine the basis for it. There are various factors that contribute to the view that Bolzano adopted the type of cognitivism seen in the works of Wolff and Gottsched. Some of these features may seem less substantial; for example, just as Wolff lists cutting wood and agriculture as arts, Bolzano has an expansive list of arts that includes not only practices commonly associated with fine arts, such as painting, sculpture, and music, but also, e.g., hunting, gymnastics, and horsemanship (see Wolff, 1963 *Preliminary Discourse*, §39, 22; §71, 38; 2001 [1725]; 1995 [1755]; Bolzano, CFA, §32, 121). Other aspects of Bolzano's account go deeper than mere surface parallels to German rationalist aesthetics, raising questions about his originality.

The distinctions Bolzano employs to describe the aesthetic experience of beauty appear to have been imported from the Leibniz-Wolffian tradition. All early German Enlightenment thinkers, without exception, accepted the Leibniz-Wolffian explanation of sensory perception as consisting of clear, but confused representations. According to the German rationalists, even though aesthetic judgments are cognitive and objective, they are based on confused (though clear) representations. Bolzano seems to concur with the German rationalists in that he does not believe that we can have clear and distinct cognitions of the beautiful (CB, §5, 46, *passim*). He claims that in experiencing beauty “our ability to think by means of obscure representations is exercised” (CB, §10, 58). On the surface, the descriptions of aesthetic experience by the German rationalists and Bolzano seem comparable, and indeed, some scholars have recognized this similarity. For instance, Achim Vesper argues that the terms Bolzano uses, such as clear (*klar*), distinct (*deutlich*), indistinct (*undeutlich*), obscure (*dunkel*), and confused (*verworren*), are all borrowed from the Leibniz-Wolffian tradition (2012: 56–57). Nevertheless, the resemblance between German rationalism and Bolzano's view is deceptive. Despite the apparent terminological continuity, their portrayals of aesthetic experience differ. This distinction emerges because, even though Bolzano employs the same terminology, he gives these terms meanings that diverge from their meanings in the German rationalist tradition. This departure has already been noted in the scholarship. Paisley Livingston (2014: 276–281) provides a detailed analysis of how Bolzano revised Leibniz-Wolffian terminology in his own way. Since a detailed analysis is present in Livingston's “Bolzano on Beauty,” a brief explication of the terminological differences between the rationalist account of the experience of beauty and Bolzano's should be sufficient.

In *Meditations on Knowledge, Truth, and Ideas*, Leibniz distinguishes between different kinds of knowledge: “Knowledge is either obscure or clear; clear knowledge is either confused or distinct” (1969 [1684]: 291). Knowledge is obscure when it does not suffice for recognizing the thing represented. Having clear knowledge of a thing enables us to re-identify the thing represented. For instance, if you have clear knowledge of daffodils then you will be able to identify them. If you have obscure knowledge of them, you might have difficulty distinguishing them from, let’s say, lilies. If, in recognizing the daffodil, you can enumerate all the marks that suffice to recognize it, such as its trumpet-shaped center and its white and yellow color, then this ability indicates that your knowledge of daffodils is not only clear but also distinct. However, if you cannot enumerate these marks, then your knowledge is clear but confused. Leibniz classifies our knowledge of sensible qualities, such as colors, odors, and flavors, as clear and confused knowledge. Aesthetic judgments, for the rationalists, are grounded in this kind of knowledge. Aesthetic pleasure consists in the perception of perfection, and beauty is defined as observable perfection, characterized by an agreement in variety (see Wolff 1736, *Ontologia*, §503, 229, Wolff 1751, *German Metaphysics*, §152, 79, and Wolff 1738, *Psychologia empirica*, §544, 420 for Wolff’s articulation of these claims as they were broadly adopted by other rationalists; also see Beiser [2009] for his presentation of these core ideas of German rationalist aesthetics). In the scholarship, it is not uncommon to equate perfection with unity-in-variety or sameness-in-diversity—a move that is understandable given Wolff’s definitions in his *Ontologia*. There, he describes perfection as “agreement in variety, or the agreement, in one thing, of several things differing from each other,” and further defines agreement as “the tendency to reach something that is the same” (Wolff 1736, *Ontologia*, §503, 229).<sup>3</sup>

For Bolzano, clarity and obscurity of ideas depend on whether these ideas are accompanied by second-order reflective thought. In his *Theory of Science*, he states that “an idea is clear if we represent it to ourselves by way of an intuition. It will be called obscure whenever this is not the case” (WL, §280). Bolzano has a very specific and technical definition of intuition (*Anschauungen*) in his works. Although he adopts the term from Kant, Bolzano’s definition of intuition significantly diverges from Kant’s (for a comparison of Bolzano’s and Kant’s views on intuition, refer to Rosenkoetter 2012, Lapointe 2014, and Livingston 2015). In Bolzano’s framework, ‘intuition’ refers to an introspective, simple, and singular idea that represents the particular event causing it (see Livingston 2015: 210 and Lapointe 2014: 101). For instance, when we are presented with a daffodil, we form the idea of yellow, pleasant fragrance, etc. In the same way, when we think about an idea ‘yellow’ that we have in mind and are aware of the idea ‘yellow,’ just like we are aware of the yellowness of the daffodil in front of us, then the idea of yellow is clear. If we cannot form a simple idea of the idea ‘yellow,’ then it is obscure. Despite our lack of self-awareness or metacognition of these ideas, obscure ideas can still be used for object recognition, as we can still recognize objects without conscious effort, contrary to the assumption of the Leibniz-Wolffian tradition.

<sup>3</sup> “Perfectio est consensus in varietate, seu plurium a se invicem differentium in uno. Consensum vero appello tendentiam ad idem aliquod obtinendum” (*Ontologia*, §503, 229).

When it comes to the beautiful, our response is not a direct response to a quality in the object (CB, §10). Bolzano states that we derive pleasure from the contemplation of beauty and that the content of our contemplation is not a single thought. “Mere intuitions,” he says, “are insufficient for conceptualizing beautiful objects” (CB, §7, 50–51). Contemplating the beauty of a daffodil cannot be similar to forming singular ideas like “it is yellow” or “it has a pleasant fragrance.” Bolzano rejects the claim that beauty can be reduced to a single idea, because that would entail that even animals and children, by virtue of their capacity to form singular ideas, are capable of experiencing beauty.<sup>4</sup> What is the content of our contemplation then? When we encounter a beautiful object and apprehend some of its qualities, we proceed to look for a concept to apply to it, just as we do in regular cognition (CB, §14, 64). This process occurs without too much difficulty and does not necessitate distinct thought—specifically, there is no need to acquire knowledge about the content of the object, its parts, or how they are combined (CB, §14, 64; WL, §281). Once we find the concept, then we can use it to aid us when guessing other qualities of the object that we were not able to apprehend in the first place. Take, for instance, Aesop’s fable “The Tortoise and the Hare.” Assuming that you are reading it for the first time, you see the development of a story in which a hare boasts about his speed and challenges a tortoise to a race. From this setup, you form the concept of a fable, which has the purpose of delivering a lesson. Then, this concept helps you to guess who these characters are meant to symbolize, what the moral lesson is, and so on. As you read the part of the story where the hare takes a nap mid-race, you guess the end of story, namely, that despite the hare’s confidence and initial lead, the tortoise ultimately wins the race by steadily plodding along while the hare takes his nap; and, as you finish reading the story, you realize that you have guessed it right. But what gives us pleasure is not merely apprehending some of the qualities of “The Tortoise and the Hare” and guessing other ones. We also experience a “mental pleasure, arising from our discovery of a rule from which we are able to derive all the qualities to be apprehended in the beautiful object” (CB, §15, 66). Our attention shifts from the object to our own cognitive powers. By successfully guessing the qualities of a beautiful object, we have demonstrated the proficiency of our cognitive powers—our powers of intuition, memory, imagination, understanding, judgment, and reason (CB, §7, 51). This demonstration delights us. For example, our imagination exhibits its proficiency by representing additional qualities of the object beyond what was initially observed, and our judgment and reason display their skill in choosing the most suitable features offered by the imagination, rather than having to rely on chance (CB, §7, 51–52).

<sup>4</sup> When Bolzano first introduces the idea that animals and children are not qualified to be appreciators of beauty, he presents it as an almost universally accepted fact, which does not require further justification (see CB, §6). However, some commentators suggest that further examination of the essay, *On the Concept of the Beautiful*, could uncover additional motivations behind his views. For instance, Lopes (2023: 13–14) argues that Bolzano’s portrayal of beauty as a quintessentially human phenomenon is not rooted in human exceptionalism, but instead reflects his aim to portray humans as they are—creatures with culturally located practical agency and cognitive capacities.

But we can have only an obscure awareness of the proficiency of our cognitive powers. Bolzano speaks of this proficiency as something we can only feel: “we cannot be distinctly conscious of it, cannot *represent* it, and therefore cannot make a *judgment* about it” (CB, §10, 59). Due to this lack of direct access, we project this pleasure onto the object and speak of beauty as if it is a property of the object (CB, §10, 59).

This description of aesthetic experience reveals that Bolzano did not adopt the German rationalist view, which reduces beauty to perfection. German rationalists argue that beauty can be distilled to perfection and link perfection to unity-in-variety and sameness-in-diversity. Bolzano does speak of the perfection of artworks, asserting that perfection should be their ultimate goal, and that the more perfect they are, the more enjoyment they bring (CFA, §4, 86–87, §38, 128–129, §39, 130). However, he does not equate beauty with perfection (for a parallel observation, see Livingston 2016: 335). In one instance, Bolzano states that all properties of an object, whether directly apprehended or guessed, are related to each other “in a way essential to the composition of the object as a whole” (CFA, §19, 73). Yet it would be a leap to interpret this as a direct allusion to harmony between parts, since in his essays Bolzano refrains from utilizing terms such as “unity-in-variety” or “sameness-in-diversity”—which German rationalists commonly employ—to characterize the content of our perceptual experience of beauty.

## 2. Liberal Rule-Following

Despite the divergences between the views of Bolzano and the German rationalists, it is hard to shake the feeling that Bolzano adopted at least a few of the more rigid and old-fashioned ideas of rationalism. The reason for this feeling is simple: Bolzano endorsed rule-guided appreciation and creation. He makes his commitments clear at the beginning of his essay on fine arts, where he lists some of the main aims of aesthetics. At the top of the list, we have two main aims: 1) providing “guidance for how we should enjoy every instance of beauty that we encounter, not only in art, but also in nature” and 2) “teaching artists how they should produce art” (CFA, §1, 83). While all German rationalists argued for rule-guided appreciation, it was only Gottsched who argued that artists follow rules in creating artworks. On the issue of rule-guided appreciation, Gottsched is explicit. He claims good taste involves correctly judging from the senses, or based on clear but confused knowledge, whether something is beautiful or ugly (1973[1742], 174–5). The accuracy of these judgments, Gottsched argues, depends on their adherence to established rules and norms tailored to perfect various art forms, such as music, paintings, and poems (176). Regarding aesthetic creation, particularly in poetry, Gottsched claims that the poet must be equipped with the same rules (176).<sup>5</sup> He reasons that since art imitates nature, and nature is orderly and governed by rules, art must similarly be rule-governed (183; see also Beiser 2009: 96, and Guyer 2014: 314–15). Gottsched’s approach to aesthetic creation in *Critische Dichtkunst* faced significant criticism.

<sup>5</sup> “Und aus dieser Beschreibung ist es nunmehr leicht zu begreifen, daß ein jeder Poet von rechtswegen damit versehen seyn sole” (1973[1742], 176).

As noted by Braitmaier and Beiser, one of Gottsched's contemporaries, J. E. Schlegel commented that "Gottsched wants us to write poems just like a Hausfrau makes a pudding" (Braitmaier 1972, 107; Beiser 2009, 90).<sup>6</sup> This type of critique likely persuaded other German rationalists to move away from the concept of rule-guided creation while still maintaining rule-guided appreciation. For example, Mendelssohn describes the rules of beauty as something "the artist's genius feels and the critic reduces to rational inferences," emphasizing a more intuitive engagement with artistic rules on the part of the artist (1997 [1757], 169). Later thinkers like Mendelssohn and Lessing have been praised for recognizing that artists need to enjoy certain types of freedoms when they create art (see Mendelssohn 1997 [1757], Lessing 2002 [1766]). It is probable that the distinction between early and late rationalists, and the praise given to the latter, is partly due to Kant's rejection of rules (See especially §33–34 of the *Critique of the Power of Judgment* (2000 [1790])). Setting aside these points, I believe that although Bolzano discusses rule-following, his account is not as rigid as one might initially think. He does not suggest that following the rules equates an artist's work to that of a 'Hausfrau' mechanically following a pudding recipe. I will demonstrate one key feature of Bolzano's aesthetic theory that sets him apart from the early rationalists like Gottsched—liberal rule-following. The subsequent subsections will analyze Bolzano's views on rule-following, first with respect to aesthetic appreciation and then with regard to artistic creation.

## 2.a. Liberal Rule-Following in Aesthetic Appreciation

Aesthetic appreciation, because it requires concept application, inherently involves rule-following. However, we need not follow these rules consciously. As Bolzano states in §5, aesthetic contemplation happens "with such ease and swiftness that we need not be distinctly conscious of the thoughts involved in it" (CB, §5, 46). Additionally, if we were mechanically following rules, then during aesthetic contemplation we would not be guessing the properties of the beautiful object but inferring them. Hence, I will argue that there exists a certain latitude when it comes to aesthetic rule-following.

In §10 of *On the Concept of the Beautiful*, Bolzano discusses the differences between the pleasure in the beautiful and the pleasure in a mathematical proof, and the pivotal difference hinges on how we apply rules in each case:

[E]ngaging in mathematical or speculative inquiries is entirely different from losing oneself in the contemplation of a beautiful object. With the former, we take care to develop all of our thoughts as distinctly as possible, clearly conscious of our movement from one concept, proposition, or inference to the next. With the latter, however, we are

<sup>6</sup> Beiser defends Gottsched, suggesting that the intention was not for artists to slavishly follow rules but to internalize them, allowing for the creation of works that naturally comply with these rules, even if not consciously adhered to (2009: 91). Beiser may have a valid interpretation, but Gottsched's contemporaries saw things differently.



not at all concerned with becoming distinctly conscious of our thoughts. Rather, we hurry as quickly as possible from one thought to another until we have come across a concept that represents the object in such a way that it contains the sum of the qualities that our contemplation has revealed to us (CB, §10, 58).

In the case of mathematics, our deductions stem from the concepts we employ, and these concepts, if applied correctly, guide us unambiguously toward a singular and accurate solution. For instance, consider the Pythagorean theorem. It states that in a right-angled triangle, the square of the length of the hypotenuse (the side opposite the right angle) is equal to the sum of the squares of the lengths of the other two sides. The proof of this theorem involves employing geometric principles and algebraic manipulations. Let's briefly outline the proof: (1) start with a right-angled triangle; (2) draw squares on each side of the triangle; (3) having rearranged the squares and the triangles, you can visually observe that the areas of the squares on the shorter sides indeed sum up to the area of the square on the hypotenuse. The point is that the rules of geometry and algebra direct us unequivocally to the truth of the Pythagorean theorem. There is no room for interpretation or varying outcomes—the theorem holds true for all right-angled triangles. This process of using rules to get to the right answer elicits a sense of satisfaction because “our ability to think clearly and distinctly is exercised and augmented” (CB, §10, 58).

The aesthetic case works in a different way than the mathematical case. On the basis of apprehended properties, we determine what kind of a thing the object of our contemplation is. Once we find the kind concept(s) that we can subsume the object under, we get access to the rules that help us narrow down the range of potential properties of the object and formulate informed guesses. When we perceive an artwork, for instance, we seek to apply relevant classifications of its genre, style, period, and tradition. All these art categories aid us in guessing the aesthetically salient qualities of the object that are not immediately apparent. The rules attached to these art categories (e.g., genre norms, medium-specific techniques, and stylistic guidelines) do not lead to definitive inferences about the aesthetically relevant properties. They do not point to the exact properties to which we should attend and/or to a single right interpretation of the work we can have thereafter. However, they do narrow down the pool of possible properties we can assign to the object. One of the primary factors contributing to this variance is that our imagination is actively involved in generating the pool of possibilities (CB, §7, 51; see also Rusnock and Šebestík 2019, 560). This implies that our application of rules is not mechanical; rather, our imagination contributes by expanding and assisting us in forming the range of possible options. The rules serve as tools for refining the possible options from which we make our guesses, and guide us in making sense of what is going on. Through this process, “our ability to think by means of obscure representations is exercised and augmented” (CB, §10, 58).

To illustrate, consider Hiroshi Sugimoto's photographic series of theaters, including “Carpenter Center, Richmond, 1993,” “U.A. Play House, New York, 1978,” and “Cinerama Dome, Hollywood, 1993.” In each of these images, we perceive a shining screen, indicating that a movie is being shown. There are no



specific images on the screen, only the radiant, gleaming surface. Building on this observation and utilizing our knowledge of the medium and the artist's oeuvre, we compile a list of potential factors that could be responsible for producing this effect. In this process, we employ rules in the form of medium-specific techniques, stylistic guidelines, and so on, to narrow down the possibilities. Some conceivable options include leaving the camera's shutter open at a wide aperture, utilizing post-processing techniques, and even intentionally leaving the screen devoid of imagery. From these possible options, we guess that Sugimoto might not be encapsulating a single moment or a particular frame from the movie. Instead, he might be capturing the entirety of the movie by leaving his shutter open at a wide aperture and prolonging the exposure time.

In the example above, we have guessed right. This guess is not a mere random guess; our hypothesis is grounded in our observations and prior knowledge. In this guessing process, we exercise our ability to think with obscure representations, which allows us to explore and appreciate the meaning and artistic intention behind the photographs. Yet, our observations and the artistic rules we follow are not employed to infer which precise attributes to focus on or to deduce a definitive interpretation of the work. They do not unequivocally direct us toward a precise answer. The process of making non-arbitrary guesses is not equivalent to mechanically following rules and making cut-and-dried inferences. This form of appreciation is distinct from the precise and calculated inferences involved in mathematical pursuits.

The process of forming and eliminating options can be honed through practice so that we can make more educated guesses. It could be contended that, with sufficient practice, the appreciator might progress beyond mere guessing and begin making inferences. Bolzano, however, disputes this assumption. In §19 of *On the Concept of the Beautiful*, he contrasts discerning different flavors in dishes with distinguishing musical notes. While his claims about the gourmet's inferences might seem unreasonable, this passage is valuable as it reveals Bolzano's thoughts on the freedom involved in aesthetic appreciation. Even though both activities require practice, a gourmet, Bolzano claims, "does not make a *guess* as to the other ingredients a dish might contain on the basis of the flavors he has already tasted. Rather, he infers the presence of other ingredients that have a *necessary* connection with those he has already tasted in the dish" (CB, §19, 73-4). Music appreciation is "completely different," Bolzano adds (CB, §19, 74). When we hear a sound, we attempt to identify the note by perceiving its pitch, which involves assessing whether the sound is high or low in frequency. Additionally, we gauge the duration of the sound's vibrations by measuring the length of time it persists, often using familiar units like seconds. According to Bolzano, what we are doing is quite distinct from what the gourmet does. It is not inferring because, he says, "we will not be distinctly conscious of what note it is; rather, it will simply come to us" (CB, §19, 74). Especially when we are listening to a musical composition—a more intricate and elaborate arrangement than a mere sequence of identical notes—, no rule can guide us to infer from one note to the next in the same systematic manner as one does in the proof of the Pythagorean theorem. The appreciator's experience harbors a form of freedom, allowing for individualized interaction with aesthetic objects that extends beyond structured reasoning. In short, the aesthetic appreciation process is not merely

mechanical, and this is partially because the creation process is also not merely mechanical.

## 2.b. Liberal Rule-Following in Artistic Creation

Bolzano contends that “when practicing art, we have to follow certain rules and set certain aims, which ensure that the end result has precisely one type of beauty and not any other” (CFA, §3, 85). According to Bolzano, a theory of arts is supposed to be both descriptive and prescriptive. He says, “it should describe to the artist, on the one hand, how he already acts when producing artworks and, on the other, how he must act in the future to produce works with a greater degree of perfection” (CFA, §3, 85). Yet, he defines an artist as someone endowed with the ability to create beautiful objects through their free and intentional acts (CFA, §2, 84). Consequently, it would be implausible to conclude that for Bolzano the artist’s actions merely involve mechanically applying the instructions of the theory. Indeed, theories of arts set the conditions for artistic creativity to flourish.

In §23 of *On the Classification of the Fine Arts*, Bolzano contrasts an artist who composes a musical piece and an artist who performs one, with the aim of delineating the distinct forms of guidance required in each scenario. He asserts that no one would dispute “the necessity of an art of creating musical artworks” in the former case; the composer requires a special kind of guidance (CFA, §23, 108). In the latter case, whether there is a need for a theory of art depends on “how much or how little room there is for the free, intentional activity of the performer in their execution of the piece” (CFA, §23, 108). If the artist’s activity is not free then the performance is not really a work of art, and thereby no theory of art is needed. Such situations are more typical in instrumental performances. In instances where artistic freedom is maintained (as Bolzano argues is the case with vocal performers), the performance qualifies as art and the performer is in need of a theory of art:

[A]s far as the human voice in particular is concerned, our gracious creator gave healthy humans very broad latitude in choosing how they use it. Indeed, the degree of this latitude is such that the composer cannot entirely determine through mere written signs and indications how we perform his work, not even if it is a complete composition consisting of many sounds. Thus, the performer’s own taste must play a role here. For this reason, guidance, a theory of art, is indispensable not only for the creation but also for the performance of already created and written works of vocal music (CFA, §23, 108).

Therefore, in Bolzano’s framework, following guidance and creating freely are not mutually exclusive. Indeed, a theory of art is indispensable in cases of free, non-mechanical artistic activity. Most likely, the theory offers a spectrum of options that the artist can draw upon in their creations, acting as a catalyst for the exercise of their freedom. Movements, schools, genres, subgenres, styles, and more provide guidance to artists, furnishing an array of options from which to choose. While an artist may

choose to follow genre-specific rules in order to align with a certain genre, this type of rule-following does not preclude the creation of novel and innovative works.

According to Bolzano, the process artists engage in to create new, inventive works involves introducing unexpected elements into the equation (CFA, §35, 125). He elaborates on the issue of originality as follows:

But when are we permitted to say that a visual artwork is inventive? My answer is: only when the artist does not represent the object with which he wants to occupy our attention exactly how it might appear in reality. Rather, a visual artwork is inventive when the artist gives the represented object certain qualities that are not intended to be taken as actual qualities of the object but that serve the purpose of inciting in us certain feelings, sensations, wishes, and resolutions of the will that we transfer onto the represented object. In other words, a visual work of art is *inventive*, or at least contains *inventive elements*, if, upon viewing it, the representation *first evoked* in us (what we see) adds to the object that the work *actually represents* qualities that the object does not actually have, and that we do not attribute to it in reality (if we are not to misunderstand the artist's intention). We only use its representing the object as having those qualities in order to evoke particular feelings, sensations, wishes, and resolutions of the will (CFA, §35, 125).

For instance, if you are engaged in crafting realist portraits, your artistic genre tells you that there is a direct correlation between the perfection of the resemblance and the perfection of the painting. However, Bolzano asserts that artists can display their inventiveness when they “leave out some disfigurements or add some beauty that is lacking,” all the while not “destroying the similarity altogether” (CFA, §35, 126). Alternatively, if the painting genre in which you want to create artworks lists the standard properties of that genre as having straight lines and rectangular grids in a two-dimensional space, and requires the use of a color palette involving primary colors, black, and white, then employing colorful grids in your painting constitutes an innovative artistic move. Similarly, if your chosen artform is defined as the art and practice of capturing and preserving images using light or other electromagnetic radiation, and if you capture a whole movie within a single image by extending your shutter's exposure time at a wide aperture, you are original.

In summary, even though Bolzano adopted the rationalist line that art appreciation and creation involves following rules, he tailored this perspective to accommodate specific degrees of freedom for both appreciators and creators. Unlike the account of a German rationalist like Gottsched, Bolzano's cognitivism is far from rigid and, in fact, quite flexible and novel.

### 3. Bolzano's Contextual Autonomism

The appeal of Bolzano's aesthetic cognitivism goes beyond its departure from the cognitivist approaches of his predecessors or contemporaries. In this section, I will demonstrate how his nuanced exploration of the interplay between aesthetic values

and other forms of value offers a refreshing alternative to contemporary accounts of aesthetic cognitivism. I will term his distinctive cognitivist stance “contextual autonomism” to distinguish it from present-day viewpoints.

While contemporary cognitivist theories may vary in their specifics, a cognitivist perspective is generally characterized by a commitment to two primary claims: (1) artworks embody cognitive values, and (2) these cognitive values contribute to their aesthetic worth (see Gaut 2006). There is substantial debate regarding the knowledge artworks can provide, including debates on whether the knowledge they offer is nontrivial, whether artworks can legitimately ground this knowledge, and whether artworks serve as exclusive founts of knowledge that are unattainable through other means (see Gibson [2008] for a summary of these debates). Some anti-cognitivists reject both (1) and (2) above (e.g., Stolnitz 1992, Diffey 1995). Other anti-cognitivists accept (1), often referred to as “the epistemic claim,” but reject (2), often referred to as “the aesthetic claim” (e.g., Lamarque and Olson 1994). Though it may seem anachronistic, I find these distinctions useful for categorizing Bolzano’s views as they help to illuminate nuances that might otherwise remain obscured. Bolzano accepts the epistemic claim but qualifies the aesthetic claim. This partial endorsement of the aesthetic claim positions him outside the anti-cognitivist camp.

With regard to the epistemic claim, Bolzano contends that artworks realize multiple values other than the aesthetic since they can serve various purposes (CFA, §8, 93). He rejects the idea that artworks are created solely for aesthetic contemplation and possess merely aesthetic value. He draws attention to a distinction made by Wilhelm Traugott Krug between absolutely beautiful arts and relatively beautiful arts. According to Krug (1802), the former serve no purpose other than beauty or the satisfaction of taste, whereas the latter also serve additional functions. Bolzano dismisses both this distinction and the concept of absolutely beautiful arts, contending that all art falls into the category of relatively beautiful arts. He argues that if aesthetic value were the sole consideration, then artists would produce uniform works, resulting in a lack of diversity among artworks. In his words,

every rational human act—even more so every act that is executed with as much contemplation as the production of an artwork—must have been intended and executed with more purposes in mind than merely providing pleasure in beauty. This is made clear by the simple fact that this purpose alone, were it to be the same in every work of art, would not permit works of art to differ from one another. All absolute works of art would have to be the same as one another, there could be no rational basis to design the one like this and the other like that, and their variations would be irrational (CFA, §8, 94).

Interestingly, he even goes so far as to claim that an artwork whose sole purpose is to provide pleasure in beauty is an aesthetic failure. He says, “[i]magine, for instance, that Horace intended that we be able to perceive in even just one of his Epistles or

Odes really no other purpose than that he wanted to offer us something beautiful: must we not then declare it to be a failed work of art?" (CFA, §8, 94).

Regarding the aesthetic claim, Bolzano exercises caution and refrains from issuing the sort of blanket statements that are frequently encountered in contemporary philosophical work on aesthetic cognitivism. Consider, for instance, Berys Gaut's defense of aesthetic cognitivism. Gaut's argument linking cognitive merits/defects to aesthetic merits/defects is quite broad, encompassing all artworks. This generality of his argument leads him to bite the bullet and argue that "Milton's work would have been artistically even better than it is in one respect, had his religious views been correct" (2006: 124). In contrast, Bolzano embraces a more nuanced approach by endorsing autonomism regarding the interplay between aesthetic value and certain types of cognitive value, while supporting interactionism concerning the connection between aesthetic value and other kinds of cognitive value. Here, I am using the terms "autonomism" and "interactionism" in a broader sense than they have been traditionally used in the literature.

In current discussions, these terms are associated with rival positions within the realm of ethical criticism of art. Autonomists argue for the independence of aesthetic value from ethical value. As Nils-Hennes Stear (2023) explains in his comprehensive overview of autonomist positions, autonomism has been divided into two distinct forms—radical and moderate—since the publication of Noël Carroll's influential paper "Moderate Moralism" in 1996. Radical autonomists reject what Giovannelli terms the amenability thesis, which posits that artworks can be ethically evaluated because they possess ethical value (refer to Carroll 1996: 224, 231; Giovannelli 2013: 336–38; and Stear 2023: 284 for the formulation of the amenability thesis, and see Posner 1997, 1998, 2009 for a defense of radical autonomism). Moderate autonomists, on the other hand, accept the amenability thesis but contest the interaction thesis, which posits that an artwork's ethical value, if present, partially determines its aesthetic value (see Carroll 1996: 231–32, Clavel-Vazquez 2018: 2, Stear 2023: 284 for the formulation of the interaction thesis, see Anderson and Dean [1998] for a defense of moderate autonomism).<sup>7</sup> Interactionists posit either a positive interaction (ethical merits/defects are *pro tanto* aesthetic merits/defects; e.g., Carroll 1996, Gaut 2007, Giovannelli 2013) or a negative interaction (ethical defects can sometimes count as aesthetic merits; e.g., Kieran 2006, Eaton 2012, Stear 2022). They maintain that aesthetic value can be enhanced or diminished by ethical considerations, differing from moderate autonomists who accept ethical relevance but deny any aesthetic impact. Here, I am expanding the application of these terms to encompass a wider array of cognitive values beyond just ethical values. Autonomism, as used here, denotes the stance that aesthetic value is independent of, and not determined by, cognitive values in general, including ethical values, which I regard as a subset of cognitive values. For a moderate autonomist, the cognitive values embodied by a work may interact with its aesthetic value, and the aesthetic value may enhance other cognitive values, but only under the condition that these cognitive values do not influence the aesthetic value. Thus, one can be considered an aesthetic

<sup>7</sup> For additional defenses of autonomism that do not directly fit under the categories of radical or moderate autonomism, see Clavel-Vazquez (2023) and Harold (2011, 2020).

autonomist while still being an interactionist in terms of other values. Interactionism, likewise, refers to the position according to which cognitive values, broadly construed, determine aesthetic value. Furthermore, when discussing the amenability and interaction theses from here on, I modify them to apply broadly to cognitive values rather than strictly to ethical values, substituting ‘ethical value’ with ‘cognitive values in general’ except for aesthetic value.

Let’s start with Bolzano’s autonomist claims. Bolzano states that

high-quality images, paintings, plastic works, phantoms, and the like cannot only facilitate but are sometimes even indispensable for many arts and sciences, including the description of nature, natural science, geography, ethnography, the history of humanity, anatomy and physiology, and nosology (CFA, §35, 124).

For instance, think about “Glass Flowers,” Leopold and Rudolf Blaschka’s meticulously crafted glass models that represent plant species. These models, while stunningly beautiful, also fulfill pedagogical functions by serving as tools for educating about plant biology and morphology. Here, Bolzano’s view clearly supports the amenability thesis: the “Glass Flowers” are subject to aesthetic evaluation as well as an assessment based on their pedagogical value. However, he rejects the interaction thesis. According to Bolzano, the pedagogical value and the accuracy of these representations do not inherently augment their aesthetic worth. He contends that

although the service that the visual arts render these arts and sciences is often of high importance, it is only seldom true that performing the service increases the value of visual artworks themselves. What I mean is that the value of images as artworks is not necessarily increased by their performing this service; indeed, as mentioned above, it is disputed whether even the most successful illustrations deserve to be called genuine works of art (CFA, §35, 124).

While artworks can serve vital roles in advancing knowledge and understanding across various domains, Bolzano emphasizes that the mere fulfillment of these roles does not necessarily elevate artworks to the realm of aesthetics. There is an interaction between aesthetic value and cognitive value the artworks have in virtue of their contributions to the arts and sciences, but this interaction is one-sided: cognitive value gains from aesthetic value. When something is aesthetically appealing, we are more inclined to engage with the work and more likely to learn from it. However, cognitive value does not necessarily enhance aesthetic value. For instance, the pedagogical function of the “Glass Flowers” does not add to their beauty, but their beauty does engage students of plant biology and morphology more effectively. In these passages from §35 of *On the Classification of the Fine Arts*, it is evident that Bolzano adopts an aesthetic autonomist standpoint, emphasizing that the intrinsic aesthetic value of art remains distinct from the various cognitive values that an artwork embodies. Yet, his aesthetic

autonomism is consistent with his interactionism regarding the one-sided influence of aesthetic value on cognitive values in general. The aesthetic experience enhances cognitive engagement, but the cognitive contributions of artworks do not inherently enhance their aesthetic appeal.

Nonetheless, it would be premature to label Bolzano an uncompromising aesthetic autonomist. His aesthetic autonomist reflections in §35 are followed by observations on artworks that serve moral or religious purposes. In this context, he clarifies that his prior comments on the autonomy of aesthetic value do not hold true. Bolzano acknowledges that “the amount of material that morality and religion—and particularly the Christian religion, indeed, the Catholic-Christian religion—provides for artistic rendering is truly inexhaustible” (CFA, §35, 125). He notes that when literary art aligns with visual art, especially with the intent of illuminating moral or religious ideas, the value of the artworks is indeed elevated through its fulfillment of such functions (CFA, §35, 124–5).

This nuanced stance leans towards interactionism, suggesting that Bolzano's autonomism is context-dependent. Thus, I term his position “contextual autonomism.” His cognitivist outlook does not imply that any form of knowledge gleaned from artworks enhances their aesthetic value. For instance, the pedagogical value of “Glass Flowers” does not determine their aesthetic value. Instead, Bolzano posits that when artworks convey insights related to morality and religion, their aesthetic value is enriched by their embodiment of these values. This perspective presents a more intricate viewpoint than many conventional cognitivist accounts.

One might argue that Bolzano's position potentially leans towards a form of ethicism, suggesting that all ethical merits/defects translate into aesthetic merits/defects, and hence, he was not a contextualist after all. While this interpretation has some validity, several factors warrant consideration. First, Bolzano's interactionist remarks extended beyond moral value; they also concerned religious or spiritual value. This broader scope highlights that he was interested not in the ethical criticism of artworks but in cognitivism in general. So, within that general framework of cognitivism, we can easily consider his remarks to be contextualist. Second, the aesthetic cognitivism advocated by Gaut, firmly anchored in his commitment to the aesthetic claim, places him in a position that extends beyond ethicism. Gaut (2006) does not only endorse ethicism; he defends the idea that all forms of cognitive value inherently enhance aesthetic value. In contrast, Bolzano's cognitivism takes a different direction. His variable stance on the interplay between aesthetic value and other kinds of cognitive values implies a recognition of the significance of contextual elements in determining the impact of cognitive values on aesthetic value. As such, I interpret Bolzano as presenting the bare bones of a “context-first” approach—one that encourages us to meticulously examine an artwork's specific purpose and the specific values it embodies in fulfilling this purpose, and to evaluate the interaction between the values it realizes accordingly. I think that this approach resonates with a particularistic position, which asserts that the interaction between cognitive values and aesthetic worth hinges upon the distinct context of each artwork. For instance, a certain cognitive value might contribute to aesthetic value in the context of artwork A but not in the context of artwork B. I also



want to acknowledge that this interpretation of Bolzano as a contextualist autonomist provides just one lens through which his theory can be understood.

#### 4. Conclusion

This article has aimed to elucidate Bolzano's unique form of aesthetic cognitivism by highlighting its distinguishing characteristics: liberal rule-following and contextual autonomism. These facets set him apart from his predecessors, his contemporaries, and even his twentieth and twenty-first century cognitivist successors. Both liberal rule-following and contextual autonomism contribute fresh and valuable insights that not only were relevant in Bolzano's time but also have contemporary significance.

In fact, Bolzano's originality lies precisely in the way he combines cognitivism and autonomism, which I explained above. On the one hand, we have seen his assertion that art without non-aesthetic aims would result in uniformity. On the other hand, we have explored his idea that non-aesthetic values do not contribute to aesthetic value. At first glance, these assertions might appear incongruous. This perceived incongruity perhaps arises from the unexpectedness of an autonomist voicing the former and a cognitivist endorsing the latter. However, Bolzano's brand of aesthetic cognitivism is distinctive. He is not a staunch autonomist, in the mold of Clive Bell (1914), but rather a contextual autonomist. In Bolzano's framework, these statements do not conflict. There is nothing contradictory in arguing, like Bolzano does, both (1) that non-aesthetic factors do not always directly enhance aesthetic value and (2) that they do play a crucial role in *diversifying* art. Instead of prioritizing aesthetic value alone, Bolzano cherishes art's multifaceted roles. You can learn from art about many things: it is a pedagogical tool as well as a tool for propaganda, and it can be religiously expressive and morally educative. Bolzano's position is in fact that providing pleasure in beauty cannot be the sole aim of arts; arts can assume many and diverse functions.

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#### References

- Anderson, James C. and Jeffrey T. Dean. (1998) "Moderate Autonomism". *The British Journal of Aesthetics*, 38, 2, 150–66.
- Beiser, Frederick C. (2009) *Diotima's Children: German Aesthetic Rationalism from Leibniz to Lessing*. Oxford: Oxford University Press.
- Bell, Clive. (1914) *Art*. New York: Frederick A. Stokes Company.
- Bolzano, Bernard. (2014[1837]) *Theory of Science*. 4 vols. Translated and edited by Paul Rusnock and Rolf George. Oxford: Oxford University Press.
- Bolzano, Bernard. (2021) *Gesamtausgabe*. Series II: Nachlass. A: Nachgelassene Schriften. Vol. 13: *Ästhetische Schriften*. Edited by J. Berg, E. Morscher, and P. M. Schenkel. Fromann-Holzboog.

- Bolzano, Bernard. (2023[1843+1849]) *Essays on Beauty and the Arts*. Edited by Dominic McIver Lopes and translated by Adam Bresnahan. Cambridge: Hackett.
- Buchenaus, Stefanie. (2013) *The Founding of Aesthetics in the German Enlightenment: The Art of invention and the Invention of Art*. Cambridge: Cambridge University Press.
- Carroll, Noël. (1996) "Moderate Moralism". *British Journal of Aesthetics*, 36, 223–38.
- Clavel-Vázquez, Adriana. (2023) "On the Ethics of Imagination and Ethical-Aesthetic Value Interaction in Fiction". *Ergo an Open Access Journal of Philosophy*, 9, 56. doi: <https://doi.org/10.3998/ergo.3119>
- Clavel-Vázquez, Adriana. (2018) "Rethinking Autonomism: Beauty in a World of Moral Anarchy". *Philosophy Compass*, 13, 7, 1–10.
- Diffey, T. J. (1995) "What Can We Learn from Art?". *Australasian Journal of Philosophy*, 73, 204–11.
- Eaton, A. W. (2012) "Robust Immoralism". *The Journal of Aesthetics and Art Criticism*, 70, 3, 281–92.
- Gaut, Berys. (2006) "Art and Cognition". In Matthew Kieran (ed.), *Contemporary Debates in Aesthetics and the Philosophy of Art* (Malden, MA: Blackwell Publishing), pp. 115–26.
- Gaut, Berys. (2007) *Art, Emotion and Ethics*. Oxford: Oxford University Press.
- Giovannelli, Alessandro. (2013) "Ethical Criticism in Perspective: A Defense of Radical Moralism". *The Journal of Aesthetics and Art Criticism*, 71, 4, 335–48.
- Gottsched, Johann Christoph. (1973[1742]). *Versuch einer Critischen Dichtkunst. Erster Allgemeiner Theil. Ausgewählte Werke, Bd. 6, no. 1*. Edited by Joachim Birke and Brigitte Birke. Berlin: Walter de Gruyter.
- Guyer, Paul. (2014) *A History of Modern Aesthetics, Volume 3: The Nineteenth Century*. Cambridge: Cambridge University Press.
- Harold, James. (2011) "Autonomism Reconsidered". *The British Journal of Aesthetics*, 51, 2, 137–47.
- Harold, James. (2020) *Dangerous Art*. New York: Oxford University Press.
- Kant, Immanuel. (2000[1790]) *Critique of the Power of Judgment*. Edited by Paul Guyer and translated by Paul Guyer and Eric Matthews. Cambridge: Cambridge University Press.
- Krug, Wilhelm Traugott. (1802) *Versuch einer systematischen Enzyklopädie der schönen Künste*. Leipzig: Hempel.
- Lamarque, Peter and Stein Haugom Olsen. (1994) *Truth, Fiction and Literature*. Oxford: Clarendon.
- Lapointe, Sandra. (2014) "Bolzano and the Analytical Tradition". *Philosophy Compass* 9, 2, 96–111.
- Leibniz, Gottfried Wilhelm. (1969[1684]) *Philosophical Papers and Letters*. 2nd edition, edited and translated by Leroy E. Loemker. Dordrecht-Holland: D. Reidel Publishing Company.
- Lessing, Gotthold Ephraim. (2002[1766]) *Laocoön: An Essay on the Limits of Painting and Poetry*. In J. M. Bernstein (ed.), *Classic and Romantic German Aesthetics* (Cambridge: Cambridge University Press), pp. 25–130.
- Livingston, Paisley. (2014) "Bolzano on Beauty". *British Journal of Aesthetics*, 54, 3, 269–84.
- Livingston, Paisley. (2015) "An Introduction to Bolzano's Essay on Beauty". *Estetika: The European Journal of Aesthetics*, 52, 2, 203–28.
- Livingston, Paisley. (2016) "Bolzano on Art". *British Journal of Aesthetics*, 56, 4, 333–45.
- Livingston, Paisley. (2023) Gesamtausgabe. Series II: Nachlass. A: *Nachgelassene Schriften*. Vol. 13: Ästhetische Schriften. *The British Journal of Aesthetics*, 63, 3, 438–42.
- Lopes, Dominic McIver. (2023) "Introduction". In Dominic McIver Lopes (ed.), *Essays on Beauty and the Arts* (Cambridge: Hackett), pp. 1–24.
- Mendelssohn, Moses. (1997[1757]) "On the Main Principles of the Fine Arts and Sciences." In Daniel O. Dahlstrom (ed. and trans.), *Philosophical Writings* (Cambridge: Cambridge University Press), pp. 169–91.
- Rosenkoetter, Timothy. (2012) "Kant and Bolzano on the Singularity of Intuitions". *Grazer Philosophische Studien*, 85, 89–129.
- Rusnock, Paul and Jan Šesták. (2019) *Bolzano, His Life and Work*. Oxford: Oxford University Press.
- Stear, Nils-Hennes. (2022) "Immoralism is Obviously True: Towards Progress on the Ethical Question". *British Journal of Aesthetics*, 62, 4, 615–32.

- Stear, Nils-Hennes. (2023) "Autonomism," In James Harold (ed.), *The Oxford Handbook of Art and Ethics* (New York: Oxford University Press), pp. 282–301.
- Stolnitz, Jerome. (1992) "On the Cognitive Triviality of Art". *The British Journal of Aesthetics*, 32, 191–200.
- Vesper, Achim. (2012) "Contempler, Distinguer: Bolzano sur la Conceptualité de la Perception Esthétique." In Charlotte Morel (ed.), *Esthétique et Logique* (Villeneuve d'Ascq: Presses Universitaires du Septentrion), pp. 51–70.
- Wolff, Christian. (1736) *Philosophia prima sive ontologia methodo scientifica pertractata qua omnis cognitionis humanae principia continentur* [*Ontologia*]. Verona: Typis Dionysii Ramanzini Bibliopolae Apud S. Thomam.
- Wolff, Christian. (1738) *Psychologia empirica, methodo scientifica pertracta, qua ea, quae de anima humana indubia experientiae fide constant, continentur et ad solidam universae philosophiae practicae ac theologiae naturalis tractationem sternitur* [*Psychologia empirica*]. Frankfurt and Leipzig.
- Wolff, Christian. (1751) *Vernünfftige Gedancken von Gott, der Welt und der Seele des Menschen, auch allen Dingen überhaupt* [*German Metaphysics*]. Halle im Magdeburgischen: Renger.
- Wolff, Christian. (1963[1728]) *Preliminary Discourse on Philosophy in General* [*Preliminary Discourse*]. Translated by Richard J. Blackwell. Indianapolis: The Bobbs-Merrill Company.
- Wolff, Christian. (1995[1755]) "Von Geschichten der Baukunst: Vorrede von den Säulenordnungen zur gründlichen Anweisung zu der Civil-Baukunst nach den besten Römischen Antiquitäten". In *Kleine Schriften. Gesammelte Werke*, I, vol. 22, Halle. Reprint: Hildesheim.
- Wolff, Christian. (2001[1725]) *Entdeckung der wahren Ursache von der wunderbaren Vermehrung des Getreydes und Erläuterung der Entdeckung der wahren Ursache von der wunderbaren Vermehrung des Getreydes*. 2nd edition. Halle. Reprint in *Id., Gesammelte Werke*, I, vol. 24. Hildesheim.