

# Schelling on Nature

PHIL 880

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In these notes I discuss Schelling's intellectual career and some of the details of his early *Naturphilosophie* (philosophy of nature) as it is developed in his *Erster Entwurf eines Systems der Naturphilosophie* of 1799, (First Outline of a System of the Philosophy of Nature). I focus on a few particular themes, viz. his conception of nature, of an organism, and his evolving relation to Spinozism. In next week's notes we'll focus on his related doctrine concerning intellectual intuition, as well as the prospects and problems raised by his conception of reality in terms of the "absolute".<sup>1</sup>

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## 1 Who is Schelling?

Friedrich Wilhelm Joseph von Schelling (1775–1854) is, along with J.G. Fichte and G.W.F. Hegel, one of the three most influential thinkers in the post-Kantian group of German Idealists. He played a major role in development of both Fichte's and Hegel's philosophies, and his own work constantly challenged position (both of his own and others) concerning what philosophy is, what its aims are, and how it should be practiced. Hegel joked that Schelling undertook his philosophical education in public, and Schelling's work is often described as "protean" in the sense of taking a variety of different forms and concerns, not all of which are obviously compatible with one another.

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<sup>1</sup> For discussion of these and related issues see (Bowie 1993; Beiser 2002; Bruno 2020; Estes 2010; Franks 2005; Gardner 2017; Gabriel 2011; Fisher 2017; Gram 1981; Horstmann 2000; Kabeshkin 2017; Kosch 2006; Limnatis 2008; Nassar 2013; Ostarić 2014; Sedgwick 2000; Steigerwald 2015; Zammito 2018)

Schelling's philosophy is often divided into five periods, though, like all efforts at periodization, these distinctions are somewhat artificial.<sup>2</sup>

(i) **The Early Period (1794-1796).** The texts of the mid-1790s are often interpreted as belonging to a 'Fichtean' period that focuses on the absolute 'I' or subject as the ground of the system of knowledge and action.

(ii) **The Early Philosophy of Nature (1797-1800).** The work of this period focuses on the structure of the natural world. Although Schelling continues, during this period, the broadly 'Fichtean' project of understanding how the mind comes to know nature (e.g. in the 1800 *System of Transcendental Idealism*), he now argues that philosophy must also demonstrate how nature comes to be aware of itself through the mind.

(iii) **The Philosophy of Identity (1801-1805).** With the publication of the *Presentation of My System of Philosophy*, Schelling announces his turn to the fundamental basis of both his transcendental idealism and his philosophy of nature. This period of Schelling's thought is often identified as the 'system of identity', since it is here that Schelling argues, in broadly spinozistic fashion, that mind and nature are, at the most basic level of reality, identical.

(iv) **The Middle Period (1809-1815).** In 1809, Schelling publishes his *Philosophical Investigations into the Essence of Human Freedom*, an essay that marks an important shift in his philosophical development. While Schelling continues to understand the absolute in terms of 'identity' he now emphasizes the developmental character of all that is - even interpreting 'identity' itself as processual. Traditionally, this period of thought is also interpreted as the beginning of Schelling's focus on freedom, contingency and that which is in some sense beyond the grasp of reason. It is particularly with his discussions of freedom and evil that we see Schelling depart radically from central commitments of other German Idealists, especially Kant and Hegel.

(v) **The Late Period (1820-1850).** The last period of Schelling's thought is distinct from the earlier work in a number of important ways that all follow from the fact that Schelling now sets up a distinction between negative and positive philosophy: the former exhibits the rationally necessary features of reality and the latter attends to the historical fact of the actual existence of the world, whose character can only be grasped through experience.

Whistler and Berger ([Whistler and Berger 2020, 7-8](#)) provide the following helpful overview of Schelling's main characteristic positions:

1. *Reality has an intelligible structure.* Precisely how one accesses the intelligible structure of reality is a difficult issue; however, throughout the whole of his life, Schelling insists upon the rational character of being — even when he comes to argue that the ultimate ground of being is not immanent to reason. Indeed, on attending Schelling's lectures on the positive

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<sup>2</sup> See ([Whistler and Berger 2020, 6](#)).

philosophy, Kierkegaard notes that, although ‘the world is not a logical consequence of God’s nature; for Schelling, ‘the a priori content of the science of reason is ... the whole of actuality’.

2. *Modern thought must no longer ignore the philosophical significance of nature.* The intelligible structure of reality is not limited to the reality of the mind for Schelling, but extends to the natural world. For this reason, he is critical of what he sees as the unfounded priority given to the philosophy of mind in modernity. Philosophy must become, like it once was in ancient physics, attentive to the dynamic world of both organic and inorganic nature; it must become, or at least come to include, a non-reductionist, non-mechanical philosophy of nature.
3. *Consciousness is not all that exists; there is an unconscious dimension to reality.* Related to Schelling’s interest in natural phenomena is his more general understanding of consciousness as being in some sense dependent upon non-conscious or unconscious processes. This ultimately leads him to the idea that the ultimate ground of being is not only unconscious but even arational.
4. *The basic elements of reality are parts of a whole.* Schelling is a thinker of unity, identity and totality, and he argues that the conscious and unconscious dimensions of reality can only be understood in terms of their place within a unified whole. Although his conception of this unity undergoes important changes from one period of thought to the next, he remains committed to some version of the slogan of his youth: *hen kai pan*, one is all.
5. *Works of art exhibit the full truth of reality.* Although it is misleading to characterize Schelling as being interested in art over and above philosophy, Josiah Royce had good reason to describe him as the ‘prince of the romanticists’: art is in no way deficient, for Schelling, but is a fully adequate way of presenting the structure of being.
6. *Reality is not, essentially, a ‘substance’ or ‘thing, but a dynamic and productive process.* Indeed, one reason that art exhibits the full truth of reality is that it expresses the unity of all that is through a process of creation. Art is not, however, the only aspect of the world that Schelling understands in terms of a fundamental creativity. At different points in his career, he foregrounds the productive activity of nature, the generation of gods in mythological consciousness and God’s free and creative activity in history.

## 2 What is Naturphilosophy?

Schelling’s *Naturphilosophie*, or philosophy of nature, is an attempt to articulate how the self-conscious knowing subject originates from a non-conscious (or perhaps unconscious) dynamic nature. It a

### 3 The Kantian Problematic

In his *Critique of the Power of Judgment* Kant presents an account of final causation (teleology) and organisms that is central to the way in which Schelling frames his account of nature. I'll briefly summarize this account before moving on to discuss Schelling's position.

Kant considers an "end" or purpose to be that which is produced by the causality of a concept, as with, e.g. an artifact. One produces a watch by bringing together various mechanical parts for the end or purpose of telling time, etc. An end is thus "the object of a concept insofar as the latter is regarded as the cause of the former" (CPJ §10, 5:220). "Final" causation is causation in which the concept or representation of the end serves as cause of its effect.

an end is the object of a concept insofar as the latter is regarded as the cause of the former (the real ground of its possibility); and the causality of a **concept** with regard to its **object** is purposiveness (*forma finalis*). Thus where not merely the cognition of an object but the object itself (its form or its existence) as an effect is thought of as possible only through a concept of the latter, there one thinks of an end. The representation of the effect is here the determining ground of its cause, and precedes the latter. (CPJ §10, 5:219-20)

Kant contrasts final causation with efficient causation. Efficient causation is such that the cause is always (logically/metaphysically) prior to the effect. There is thus an asymmetry in which (as Kant puts it) the effect is "subordinated" to the cause.

The causal nexus, insofar as it is conceived merely by the understanding, is a connection that constitutes a series (of causes and effects) that is always descending; and the things themselves, which as effects presuppose others as their causes, cannot conversely be the causes of these at the same time. This causal nexus is called that of efficient causes (*nexus effectivus*). In contrast, however, a causal nexus can also be conceived in accordance with a concept of reason (of ends), which, if considered as a series, would carry with it descending as well as ascending dependency, in which the thing which is on the one hand designated as an effect nevertheless deserves, in ascent, the name of a cause of the same thing of which it is the effect. In the practical sphere (namely, of art) such a connection can readily be found, e.g., the house is certainly the cause of the sums that are taken in as rent, while conversely the representation of this possible income was the cause of the construction of the house. Such a causal connection is called that of final causes (*nexus finalis*). The first could perhaps more aptly be called the connection of real causes, and the second that of ideal ones, since with this terminology it would immediately be

grasped that there cannot be more than these two kinds of causality. (CPJ §65, 5:372-3)

Final causation with respect to artifacts is not, Kant thinks, remotely mysterious. The question is whether we should consider final causation to be at work in nature, apart from the artifice of human agents. Kant calls such products of final causation in nature “natural ends”.

Now for a thing as a natural end it is requisite, first, that its parts (as far as their existence and their form are concerned) are possible only through their relation to the whole. ... then it is required, second, that its parts be combined into a whole by being reciprocally the cause and effect of their form. (CPJ §65, 5:373)

There are thus two conditions to a natural end:

**Natural end/purpose:** products of nature that are themselves ends, in which the parts are (i) possible in virtue of their relation to the whole; and (ii) reciprocally cause one another

Kant’s characterization of a natural end as being a whole that determines its parts and as engaging in reciprocal causation is given its clearest expression in his notion of an organism, e.g. a tree, which has three features (jointly necessary and sufficient):

First, a tree generates another tree in accordance with a known natural law. (§64, 5:371)

Second, a tree also generates itself as an individual. This sort of effect we call, of course, growth; but this is to be taken in such a way that it is entirely distinct from any other increase in magnitude in accordance with mechanical laws, and is to be regarded as equivalent, although under another name, with generation. (§64, 5:371)

Third, one part of this creature also generates itself in such a way that the preservation of the one is reciprocally dependent on the preservation of the other. (§64, 5:371)

In short, an organism as a natural end, exhibits the features of (or capacities thereto):

1. Reproduction
2. Self-maintenance/organization
3. Reciprocal dependence among parts

To explain these features Kant posits what he calls a “*Bildungskraft*” or “formative power” in the organism, that allows it to engage in these kinds of activities.

An organized being is thus not a mere machine, for that has only a motive power, while the organized being possesses in itself a formative power, and indeed one that it communicates to the matter, which does not have it (it organizes the latter): thus it has a self-propagating formative power, which cannot be explained through the capacity for movement alone (that is, mechanism). (CPJ §65, 5:374)

However, Kant's conception of nature leave no room for such a formative power. Matter, as such, has merely a "motive" power (i.e. the actuality or possibility of movement), but not the power to be both cause and effect of itself in the manner indicated above. This results in what Kant calls an "antinomy" or conflict of reason with itself, concerning the accommodation of natural ends, and organisms in particular, in nature.

The paradoxical character of natural ends/purposes is thus:

- If something is natural, then it is not the product of design (it is not an artifact)
- If something is an end, then it is produced in accordance with some conceptualized aim

This conflict is expressed in the antinomy in terms of two theses:

**Thesis:** All generation of material things is possible in accordance with merely mechanical laws.

**Antithesis:** Some generation of such things is not possible in accordance with merely mechanical laws.

The **first maxim** of the power of judgment is the **thesis**: All generation of material things and their forms must be judged as possible in accordance with merely mechanical laws. The **second maxim** is the **antithesis**: Some products of material nature cannot be judged as possible according to merely mechanical laws (judging them requires an entirely different law of causality, namely that of final causes). Now if one were to transform these regulative principles for research into constitutive principles of the possibility of the objects themselves...as objective principles for the determining power of judgment, they would contradict one another, and hence one of the two propositions would necessarily be false; but that would then be an antinomy, though not of the power of judgment, but rather a conflict in the legislation of reason. However, reason can prove neither the one nor the other of these fundamental principles, because we can have no determining principle a priori of the possibility of things in accordance with merely empirical laws of nature. (CPJ 5:387)

Kant's solution to the above antinomy is much contested. His strategy for reconciling the two propositions (thesis and antithesis) seems to hinge on recognizing that the thesis & antithesis are merely "regulative" in the sense that they each serve to unify, simplify and systematize concepts,

and direct the understanding (the faculty of concepts) to its greatest extent, with a view to arriving at a systematically unified whole of knowledge (a '*scientia* or *Wissenschaft*').

The problem is that, even if we grant Kant the claim that both are regulative, it is not clear how even if thesis and antithesis are both regulative, that they are thereby compatible with one another. The unclarity of this putative solution encouraged philosophers after Kant to think anew the relationship between nature as conceived by physics and as conceived by biology (or any other teleological science). As we'll see, Schelling's philosophy of nature aims at just such a reconception and reconciliation.

## 4 Nature as Productive & as Product

Though Schelling was greatly influenced by Fichte's work, Schelling's philosophy of nature expresses several ideas that ultimately would pull Schelling away from Fichte's philosophy, and indeed in such a way that it caused a severe personal rift between them.<sup>3</sup>

The central (and interrelated) elements of Schelling's philosophy of nature that are relevant for his break with Fichte and development of his "absolute" idealism are:

1. The productivity of nature
2. The distinction between nature as being and nature as product
3. The conception of self-consciousness as merely the highest form or expression of the productive forces of nature
4. Nature as the "indifference" or basis of subject-object duality; otherwise expressed as the "absolute identity" of subject and object in nature
5. Intellectual intuition as the non-discursive act of grasping the absolute (or the identity/indifference of subject and object)

These last two points only become fully explicit with Schelling's full break, in the *Presentation of My System*, from Fichte's position. I'll accordingly discuss (1)-(3) here and (4)-(5) in a separate set of notes.

### 4.A The Productivity of Nature

Recall that Kant argued for a conception of nature as the result of a "mechanical" causation wherein material parts, occupying space in virtue a balance of the fundamental forces of attraction and repulsion, efficiently cause the wholes of which they are members. Kant recognizes that this conception of material nature is inadequate for certain types of beings—viz. organisms whose powers contradict mechanical efficient causality, since they are both the cause and effect of themselves (via

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<sup>3</sup> See (Schelling and Fichte 2012) for details.



reproduction, self-organization, and the reciprocal dependence of their parts). Kant argued that these features can only be explained by positing a “formative power” in the organism, which is in opposition to the merely motive or mechanical powers of non-organic matter.

Schelling considers Kant’s conception of an opposition in nature between motive and productive forces an objectionable dualism that cannot be sustained. It encourages a conception of organisms as “ideal” or “spiritual”, standing in opposition to material nature. Schelling’s crucial move is to reject this opposition in favor of positing productive forces as a constitutive part of nature itself. This position is a departure not only from Kant, but also from Fichte, in that it no longer sees nature as something to be derived from the subject or absolute ‘I’ of Fichte’s transcendental philosophy. Instead, Schelling here inverts the Fichtean (and implicitly the Kantian) position to derive the self-conscious subject from the ultimate or most complex of the productive forces posited in nature. In Kantian terms Schelling makes the teleological causation characteristic of organisms into a constitutive rather than a merely regulative law.

[The] tendency [of Fichte’s philosophy] will be to bring back everywhere the real to the ideal—a process which gives rise to what is called transcendental philosophy. The regularity displayed in all the movements of Nature—for example, the sublime geometry which is exercised in the motions of the heavenly bodies—is not explained by saying that Nature is the most perfect geometry. Rather conversely, it is explained by saying that the most perfect geometry is the productive power in Nature; a mode of explanation whereby the real itself is transported into the ideal world, and those motions are changed into intuitions which take place only in ourselves, and to which nothing outside of us corresponds. ... [in contrast] all of this [order in nature] is explained in our view by saying that it [viz. organization] is an unconscious productivity in its origin akin to the conscious, whose mere reflection we see in Nature, and which from the standpoint of the natural view must appear as one and the same blind drive that exerts its influence from crystallization upward to the highest point of organic formation (in which, on one side, through the technical drive, it returns again to mere crystallization) only acting on different planes. (7:271-2)

Schelling construes the transcendental philosophy of Kant and Fichte, not unfairly, as explaining order and organization in nature in terms of the constitutive and projective acts of the rational mind as such. Thus, to speak in Fichte’s terms, though all our knowledge ultimately adverts to experience, in which subject and object are in opposition, according to Fichte it is the self-conscious subject that is the ultimately privileged explanatory basis of everything that can be known (i.e. anything that could be a “science” in the sense at issue for the *Wissenschaftslehre*). Here we see Schelling rejecting this position. As he puts things more pithily a few sentences later, “the ideal must arise out of the real and admit of explanation from it” (7:272).



However, Schelling does not yet seem to want to quite reject the position of the *Wissenschaftslehre*, instead he expresses the view that *Naturphilosophie* is explanatorily on par with the WL.

if it is the task of transcendental philosophy to subordinate the real to the ideal, it is, on the other hand, the task of the philosophy of nature to explain the ideal by the real. The two sciences are therefore but one science, differentiated only in the opposite orientation of their tasks. Moreover, as the two directions are not only equally possible, but equally necessary, the same necessity attaches to both in the system of knowledge. (7:272-3)

#### 4.B *Natura naturans*, *Natura naturata*

Schelling's conception of "Nature" distinguishes two distinct aspects, which he borrows from Spinoza. These are Nature as *productive* and Nature as *product*. In Spinoza's terms, it is a distinction between *Natura naturans* and *Natura naturata*. Spinoza discusses this distinction most explicitly in two places. The first is from his *Short Treatise*, which is a kind of non-geometrical exposition of the position elaborated in his *Ethics*:

Here, before we proceed to anything else, we shall briefly divide the whole of Nature into *Natura naturans* and *Natura naturata*. By *Natura naturans* we understand a being that we conceive clearly and distinctly through itself, without needing anything other than itself (like all the attributes which we have so far described), that is, God. The Thomists have also understood God by this phrase, but their *Natura naturans* was a being (as they called it) beyond all substances.  
... Turning now to universal *Natura naturata*, or those modes or creatures which immediately depend on, or have been created by God—we know only two of these: motion in matter, and intellect in the thinking thing. We say, then, that these have been from all eternity, and will remain to all eternity, immutable, a work truly as great as the greatness of the workman (1:47-8).

Spinoza articulates the distinction in a similar, if slightly condensed, way in the *Ethics*:

(E1P29S): Before I proceed further, I wish to explain here—or rather to advise [the reader]—what we must understand by *Natura naturans* and *Natura naturata*. For from the preceding I think it is already established that by *Natura naturans* we must understand what is in itself and is conceived through itself, or such attributes of substance as express an eternal and infinite essence, that is (by P14C1 and P17C2), God, insofar as he is considered as a free cause. But by *Natura naturata* I understand whatever follows from the necessity of God's nature, or from any of God's attributes, that is, all the modes of God's attributes insofar as they

are considered as things which are in God, and can neither be nor be conceived without God. (2:71)

Schelling makes several allusions to Spinoza's position in the *Introduction*, but the clearest is from part II of section 6:

As long as we only know the totality of objects as the sum total of all being, this totality is a mere *world*, that is, a mere product for us. It would certainly be impossible in the science of nature to rise to a higher idea than that of being if all permanence (which is thought in the idea of being) were not deceptive, and really a continuous and uniform reproduction.

Insofar as we regard the totality of objects not merely as a product, but at the same time necessarily as productive, it becomes *Nature* for us, and this *identity of the product and the productivity*, and this alone, is implied by the idea of Nature, even in the ordinary use of language. *Nature* as a mere *product* (*natura naturata*) we call Nature as *object* (with this alone all empiricism deals). *Nature* as *productivity* (*natura naturans*) we call *Nature as subject* (with this alone all theory deals). (7:284)

In drawing on Spinoza, Schelling aims to make at least the following points:

1. "Nature" refers not just to the sum total of all (possible) empirical objects (i.e. a "world"), but also the ground of those beings.
2. The concept <Nature> marks an "ontological difference" (as Heidegger will ultimately call it) between particular beings and *Being* as that through which they are what they are.
3. *Empirical* science deals only with nature as product or object (i.e. *Natura naturata*) while *Naturphilosophie* or speculative physics considers, as well, Nature as productivity or subject (i.e. *Natura naturans*).

Thus by construing Nature as intrinsically productive Schelling avoids the antinomy to which Kant construed reason as subject. But Schelling also effectively embraces a quasi-pansychist position in doing so. The advantage of this position is that it allows for the adoption of a genuine form of realism concerning things apart from the human mind. But it does so at the potential cost of introducing mindedness (at least in its most primitive form) into the world itself, in the form of an unconscious drive in nature to organic production.

#### 4.C Nature & Self-Consciousness

Fichte argues that idealism and dogmatism are opposed and that dogmatism fails to adequately explain both the possibility and nature of self-consciousness. Schelling's philosophy of nature seeks to explain the self-conscious subject through objective nature. Isn't this a form of dogmatism?

Schelling was well aware of Fichte's juxtaposition of the dogmatism and idealism (for Schelling it is dogmatism and criticism). He construes his philosophy of nature as avoiding dogmatism because it allows for both efficient and final causation in nature and construes the formative drive in nature as manifesting in ever more complex ways, the most complex or "highest" of which is the self-conscious rational subject. Hence, while Schelling starts from what might be construed as the "object pole" of experience, his position is not dogmatism in Fichte's sense. Moreover, since Schelling construes Nature as *both* subject and object, the philosophy of nature is better construed as deriving *both* from itself rather than favoring one over the other. This "indifference" of subject and object becomes explicit in Schelling's philosophy of identity, which is first publicized in his *Presentation of My System of Philosophy* in 1801.

## References

- Beiser, Frederick C. 2002. *German Idealism: The Struggle against Subjectivism, 1781–1801*. Cambridge: Harvard University Press.
- Bowie, Andrew. 1993. *Schelling and Modern European Philosophy: An Introduction*. London; New York: Routledge.
- Bruno, G. Anthony, ed. 2020. *Schelling's Philosophy*. New York: Oxford University Press.
- Estes, Yolanda. 2010. "Intellectual Intuition: Reconsidering Continuity in Kant, Fichte, and Schelling." In *Fichte, German Idealism, and Early Romanticism Fichte-Studien. Supplementa*, edited by Daniel Breazeale and Tom Rockmore, 165–77. Amsterdam [etc.]: Rodopi.
- Fisher, Naomi. 2017. "The Epistemology of Schelling's Philosophy of Nature." *History of Philosophy Quarterly* 34 (3): 271–90. doi:[10.2307/44985505](https://doi.org/10.2307/44985505).
- Franks, Paul W. 2005. *All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism*. Cambridge, MA: Harvard University Press.
- Gabriel, Markus. 2011. *Transcendental Ontology*. London: Continuum Books.
- Gardner, Sebastian. 2017. "The Metaphysics of Human Freedom: From Kant's Transcendental Idealism to Schelling's Freiheitsschrift." *British Journal for the History of Philosophy* 25 (1): 133–56. doi:[10.1080/09608788.2016.1198305](https://doi.org/10.1080/09608788.2016.1198305).
- Gram, Moltke S. 1981. "Intellectual Intuition: The Continuity Thesis." *Journal of the History of Ideas* 42 (2): 287–304. doi:[10.2307/2709321](https://doi.org/10.2307/2709321).
- Horstmann, Rolf-Peter. 2000. "The Early Philosophy of Fichte and Schelling." In *The Cambridge Companion to German Idealism*, edited by Karl Ameriks, 117–40. New York: Cambridge University Press.
- Kabeshkin, Anton. 2017. "Schelling on Understanding Organisms." *British Journal for the History of Philosophy* 25 (6): 1180–1201. doi:[10.1080/09608788.2017.1298989](https://doi.org/10.1080/09608788.2017.1298989).

- Kosch, Michelle. 2006. *Freedom and Reason in Kant, Schelling and Kierkegaard*. New York: Oxford University Press.
- Limnatis, Nectarios G. 2008. *German Idealism and the Problem of Knowledge: Kant, Fichte, Schelling, and Hegel*. Dordrecht: Springer.
- Nassar, Dalia. 2013. *The Romantic Absolute*. Chicago: University of Chicago Press.
- Ostarcic, Lara, ed. 2014. *Interpreting Schelling: Critical Essays*. Cambridge: Cambridge University Press.
- Schelling, Friedrich Wilhelm Joseph von, and Johann Gottlieb Fichte. 2012. *The Philosophical Rupture between Fichte and Schelling: Selected Texts and Correspondence (1800–1802)*. Albany: State University of New York Press.
- Sedgwick, Sally, ed. 2000. *The Reception of Kant's Critical Philosophy: Fichte, Schelling, and Hegel*. Cambridge: Cambridge University Press.
- Steigerwald, Joan. 2015. "Ground and Grounding: The Nature of Things in Schelling's Philosophy." *Symposium* 19 (1): 176–97.
- Whistler, Daniel, and Benjamin Berger, eds. 2020. *The Schelling Reader*. London: Bloomsbury Academic.
- Zammito, John H. 2018. *The Gestation of German Biology: Philosophy and Physiology from Stahl to Schelling*. Chicago and London: The University of Chicago Press.