

Symphilosophie

International Journal of Philosophical Romanticism

Mathesis universalis moralis

Hemsterhuis's Moral Organ in Novalis's Philosophy of Science

*Santiago J. Napoli**

ABSTRACT

This article explores the role played by the moral philosophy of Frans Hemsterhuis in Novalis's views on the connection between science and morality. It shows in particular how certain concepts from the Dutch philosopher's *Lettre sur l'homme et ses rapports* (1772) underlie the most important theoretical work of the Novalisian corpus: *Das allgemeine Brouillon. Materialien zur Enzyklopädistik* (1798-1799). This posthumously published text posits an original conception of science developed by means of the concept of "encyclopedistics" (*Enzyklopädistik*). To accomplish this objective, the present article examines Novalis's earlier notes titled *Hemsterhuis-Studien* (1797) in conjunction with *Das allgemeine Brouillon* from the standpoint of two epistemological problems that encyclopedistics tries to solve through morality: the separation of the sciences and the lack of dynamism within scientific practice.

Keywords: science, morality, epistemology, encyclopedistics, organ

RÉSUMÉ

Cet article explore le rôle joué par la philosophie morale de François Hemsterhuis dans les vues de Novalis sur le lien entre science et moralité. On montre en particulier que certains concepts de la *Lettre sur l'homme et ses rapports* (1772) du philosophe néerlandais sous-tendent l'œuvre théorique la plus importante du corpus novalissien : *Das allgemeine Brouillon. Materialien zur Enzyklopädistik* (1798-1799). Ce texte, publié à titre posthume, développe une conception originale de la science à partir du concept d'« encyclopédistique » (*Enzyklopädistik*). Pour établir l'influence des conceptions morales de Hemsterhuis sur le projet novalissien, le présent article examine conjointement le texte du *Brouillon général* et les notes connues sous le titre *Hemsterhuis-Studien* (1797), qui lui sont antérieures, à la lumière de deux problèmes épistémologiques que l'encyclopédistique tente de résoudre par la morale : la séparation des sciences et le défaut de dynamisme qui caractérise la pratique scientifique.

Mots-clés : science, moralité, épistémologie, encyclopédistique, organe

* Postdoctoral Researcher (CONICET), Departamento de Humanidades, UNS (Universidad Nacional del Sur), 12 de Octubre 1098, Bahía Blanca 8000, Argentina – santinapo@gmail.com

Not only within an academic setting, but also in political, corporate, artistic, or religious environments, and even in everyday conversation, the question is often raised: how is science related to morality? The most common answers redirect us to mainstream philosophy, to different hypotheses about the human condition or, at best, to the existing situation and historical background of science and its moral function. All these aspects lead us to another popular question: should science even be moral?

If currently the intention is to answer immediately, *a fortiori*, if we identify ourselves as researchers in the social sciences and humanities, we would have to enthusiastically respond in the affirmative. Several moral instruments can be identified in the world of science, such as codes of ethics or specific procedures for conducting research ethically, especially in the natural sciences. More specifically, we could speak, for instance, about successful cases in which animals remain unharmed during experiments, or perhaps about the full copyright that authors should ideally acquire in exchange for the articles they publish.

If the first of these questions about the relation between morality and science were put to one of the most important philosophers of German Romanticism, however, he would probably give a completely different type of answer. Novalis, whose birth name was Friedrich von Hardenberg (1772-1801), states in one of his theoretical works:

THEORY OF THE DEVELOPMENT OF NATURE. Nature will become moral. We are her *educators* — her moral *tangents*—her moral stimuli. Can morality, like the intellect etc., be objectified, and organized? — *Visible morality* (...)

Can chemistry become art? Decisive question. It will become so through morality.¹

Here Novalis certainly indicates a different mode of morality in comparison to the most popular concept of morality today, especially if we consider the above examples of moral codes of conduct or behavioral directives in research

¹ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, edited and translated by David W. Wood (Albany, N.Y.: State University of New York Press, 2007), 12-13. The original text in German can be found in Novalis, *Schriften. Die Werke Friedrich von Hardenbergs. Dritter Band. Das philosophische Werk II* (henceforth referred to as HKA III), eds. Paul Kluckhohn and Richard Samuel, 3rd ed. (Stuttgart: Kohlhammer, 1983), 252-253. We will use Wood's translation in the case of *Das allgemeine Brouillon. Materialien zur Enzyklopädistik*. All other translations from Novalis and from the German are our own.

ethics.² Although we have not yet further clarified Novalis’s idea of morality, the meaning he attributes to it in relation to nature, art, science, or knowledge in general, already seems to differ from its most common definition.

The above-quoted statements belong to entries 73 and 77 from Hardenberg’s posthumously published work entitled *Das allgemeine Brouillon. Materialien zur Enzyklopädistik* (1798–1799), an epistemological project that aimed to connect, combine, classify, and raise to a higher power not only science, but knowledge as such. The fundamental concept that Novalis creates and deploys throughout the *Brouillon* is “encyclopedistics” (*Enzyklopädistik*).³

Among the numerous sources of Hardenberg’s *Brouillon*, we find an author named Frans Hemsterhuis (1721–1790). In a treatise entitled *Lettre sur l’homme et ses rapports* (1772), this philosopher maintains that:

² Note that all these references relate to the popular concept of scientific morality, which is not to be strictly associated with the more complex and valuable developments in bioethics in the 20th and 21st centuries.

³ Although it is not precisely the main subject of this article, Novalis’s encyclopedistics is relevant to it, mainly because the philosophy of science within *Das allgemeine Brouillon* is inherently connected to this concept. In entry 233, Hardenberg perhaps writes his closest definition of “encyclopedistics”, while describing his everyday tasks: “One hour of encyclopedistics in general. This includes scientific algebra — equations. Relationships — similarities — equalities — effects of the sciences on each other”. Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 34 (HKA III, 280). Moreover, he uses the title *ENC[YKLOPAEDISTIK]* more than any other rubric when classifying roughly half of the 1151 entries of his *Brouillon* with thematic tags. Hardenberg sometimes associates encyclopedistics with a creative combinatorial use of the sciences, but in fact he also uses a wide range of methodological operations that concern the natural sciences, mathematics, philosophy, and even literary theory. A good account of these different uses can be found in Laure Cahen-Maurel, “Vers une ‘science totale’: l’encyclopédistique vivante de Novalis”, *Klesis* 42 (2018): 86–104, as well as in Franziska Bomski, *Die Mathematik im Denken und Dichten von Novalis. Zum Verhältnis von Literatur und Wissen um 1800* (Berlin: De Gruyter, 2014), 61–146.

Note that the aforementioned definition by Novalis does not have much in common with the historical concept of encyclopedistics applied to the paradigm of erudition between 1500 and 1750, which is commonly related to the storage, distribution, gathering, presentation, and classification of knowledge. For further details about the general concept of encyclopedistics, see Dirk Werle, “Zum Verhältnis von Skeptizismus und Enzyklopädistik bei Gabriel Naudé und Pierre Bayle”, in *Unsicheres Wissen. Skeptizismus Und Wahrscheinlichkeit 1550-1850*, eds. Carlos Spoerhase, Dirk Werle, and Markus Wild (Berlin: Walter De Gruyter, 2009), 180–182, as well as Martin Schierbaum et al. *Enzyklopädistik 1550-1650*, ed. Martin Schierbaum (Berlin: Lit Verlag, 2009), XII–XIX.

the greatest happiness to which it seems that man can aspire at all times resides in the increase of perfection or sensibility of the moral organ, which will increase his joys and bring him closer to God.⁴

In this case, we feel compelled to ask: can this view of “the sensibility of the moral organ” help clarify Novalis’s idea of the moralization of nature through science? The aim of this article is to answer that question. In fact, it seeks to more precisely determine how Hemsterhuis’s moral philosophy plays a highly significant role in Novalis’s epistemology.⁵

The main objective of this paper, therefore, is to explore Hemsterhuis’s impact on Novalis’s conception of science as intrinsically linked to morality.⁶ Accordingly, it intends to demonstrate how Novalis’ encyclopedistics, following Hemsterhuis’s moral philosophy, can be understood as a true *mathesis universalis moralis*. This expression essentially defines the Novalisian

⁴ François Hemsterhuis, *Œuvres philosophiques*, ed. Jacob van Sluis (Leiden: Brill, 2015), 154. Translations from Hemsterhuis are nearly always from the recent English translation of Hemsterhuis’s early works, published in January 2022: François Hemsterhuis, *The Early Writings of François Hemsterhuis (1762-1773)*, eds. Jacob Van Sluis and Daniel Whistler (Edinburgh: Edinburgh University Press, 2022), 2 vols. (Henceforth EE). Here vol. 1, p. 112.

⁵ Throughout this article, we intentionally use “epistemology” ambiguously. On the one hand, we employ it in its broadest, common sense, which relates to knowledge in general, its limits or its origin, among other philosophical problems. On the other hand, we make use of “epistemology” *strictu sensu*, namely regarding science or scientific knowledge. In this case, the word becomes a synonym of “philosophy of science”. This particular employment derives from the etymological roots of the word ἐπιστήμη, which denotes indistinctly “knowledge” and “science”, and it also derives from its stricter meaning in other languages, such as French or Spanish.

⁶ The strong impact of Hemsterhuis’s concept of morality on Novalis’s vision of science as a whole, a subject that roughly constitutes the main thesis of this article, was firstly addressed by Hans-Joachim Mähl in 1965: “Die Frühzeit Hardenbergs und die Auseinandersetzung mit Hemsterhuis und Fichte”, in *Die Idee des goldenen Zeitalters im Werk des Novalis* (Berlin-Boston: Max Niemeyer, reprint 2012), 255-304. By considering Hemsterhuis’s essays, Mähl discovers not only one fundamental philosophical source of Novalis, but he also opens up a new field of studies regarding the reception of the political and moral ideas of the Dutch philosopher in Early German Romanticism. We also take into account some of the most recent and relevant approaches to this subject, such as the chapter in Giampiero Moretti’s detailed book on Novalis’s philosophy and poetry: “Le *Hemsterhuis-Studien* e il loro ruolo nello sviluppo dell’estetica novalisiana. Il ‘superamento’ di Fichte”, in *Novalis. Pensiero, poesia, romanzo* (Brescia: Morcelliana, 2016), 66-81. In addition, Moretti’s book is the only Italian work that so far approaches Novalis’s thought as a whole. We also stress the importance of Dalia Nassar’s book chapter: “Beyond the Subjective Self: Hemsterhuis, Kant, and the Question of the Whole”, in *The Romantic Absolute. Being and Knowing in Early German Romantic Philosophy, 1795- 1804* (Chicago: Chicago University Press, 2013), 39-47 (especially 39-44), and more specifically, the earlier article by Laure Cahen-Maurel: “Vers une ‘science totale’: l’encyclopédistique vivante de Novalis”, *Klesis* 42 (2018): 79–109.

search for the unity of all knowledge. Consequently, Novalis's project attempts to resolve two problems that are still current in the philosophy of science: the overspecialization and separation of disciplines, and the lack of dynamism within scientific practice.

This article is divided in four sections. One (1), explores the study and reception of Hemsterhuis's thought throughout the course of Novalis' biography, which appears in his philosophical and literary works, not to mention in other historical documents, such as his correspondence. Two (2), briefly examines the epistemology and moral philosophy in Hemsterhuis's *Lettre sur l'homme et ses rapports* in order to present the basic concepts that Novalis utilizes in his *Brouillon*. Three (3), tries to reconstruct the Hemsterhuisian heritage in Novalis's epistemology by detailing how encyclopedistics aspires to unify all the sciences by presenting solutions to the first of the above two listed philosophical problems, regarding the overspecialization and separation of disciplines. Four (4), shows in what manner Novalis intends to enhance scientific discovery from the standpoint of the moralization of science, an aspect that directly links his project with the moral philosophy of Hemsterhuis. Here Novalis tries to solve the second of the above-mentioned philosophical problems regarding the lack of dynamism within scientific practice.

Throughout sections (3) and (4), tables will be occasionally used that reproduce entries from *Das allgemeine Brouillon* (1798-1799), to compare them with Novalis's other notes called the *Hemsterhuis-Studien* (1797) and with Hemsterhuis's *Lettre sur l'homme et ses rapports* (1772). Such an approach better highlights the way in which Hardenberg re-reads his earlier studies on Hemsterhuisian philosophy in order to develop a more complete theory of the sciences that becomes strongly underpinned by an original concept of morality.

1. A Philosophical Companion

In January 1792, Friedrich Schlegel tells his brother August Wilhelm that "fate has placed into my hands a young man who is capable of everything." Some lines after that, he describes this young man, not only physically, but also by underscoring his philosophical interests:

A very young man – of good, slim shape, very fine face with black eyes, of splendid expression when he speaks about something beautiful with fire – indescribable much fire – he speaks three times more and three times faster than the rest of us – the fastest capacity and sensibility. The study of philosophy has given him the wonderful

ability to build beautiful philosophical thoughts – he does not aim at the true, but the beautiful – his favourite authors are Plato and Hemsterhuys – with wildfire, he expressed one of the first evenings his opinion – that there would not be anything evil in the world – and that everything is again approaching to the golden age.⁷

At that time, Friedrich Schlegel barely knew Novalis. They had probably spent only a couple of evenings together. But those moments were of sufficient duration for Hardenberg to reveal one of his favorite thinkers: “Hemsterhuys”. Novalis seems to be aware of some theory of evil expounded by the Dutch philosopher as well as his conception of a future golden age. However, it is plausible that Novalis was unaware of the finer details of Hemsterhuis’s thought – given that he probably acquired his philosophical works only later that same year.⁸

Hemsterhuis was not unknown in the world of Early German Romanticism. He received a substantial amount of attention, mostly in Jena and Tübingen. We find the reception of his thoughts within certain philosophy hubs, in authors such as Hölderlin, Johann Gottfried Herder, Caroline Herder, M^{me} de Staël, and Friedrich Schlegel (possibly through Novalis).⁹ The Dutch philosopher was mainly associated with Neoplatonism, but with an eclectic form of it, since he was equally strongly influenced by modern physicists and philosophers from the Scottish school, like Shaftesbury, Hutcheson, and Ferguson.¹⁰

⁷ Novalis, *Schriften. Die Werke Friedrich von Hardenbergs. Vierter Band. Lebensdokumente* (henceforth HKA IV), ed. by Richard Samuel, Hans-Joachim Mähl, and Gerhard Schulz (Stuttgart - Berlin - Köln: Kohlhammer, 1998), 571–72.

⁸ Throughout the *Hemsterhuis-Studien* and *Das allgemeine Brouillon*, Novalis uses the following French edition of Hemsterhuis’s philosophical works: François Hemsterhuis, *Œuvres philosophiques de M. F. Hemsterhuis* (Paris: L’Imprimerie de H. J. Jansen, 1792). This means that he probably had not read the translation of Christian Friedrich von Blanckenburg, contrary to many of his colleagues and friends. For further information about Novalis’s biographical events regarding Hemsterhuis, such as the acquisition of his oeuvre or the impressions shared within the romantic circle, see Hans-Joachim Mähl’s introduction to *Hemsterhuis-Studien*: “Einleitung von Hans-Joachim Mähl”, in HKA III, 299–345.

⁹ For further details about the reading of Hemsterhuis by the German romanticists, see Michael Franz, *Schellings Tübingen Platon-Studien* (Göttingen: Vandenhoeck & Ruprecht, 1996), 76–81.

¹⁰ See Ursula Flickenschild, *Novalis’ Begegnung mit Fichte und Hemsterhuis*, ed. by Jacob van Sluis, *Hemsterhuisiana* Vol. 13 (Berltsum, 2010), 21–53. Flickenschild outlines the main themes of Hemsterhuisian philosophy: “the unity, the primary and love as (...) a return to the original oneness with all” (29). These subjects account for Hemsterhuis’s affinity with some of Plotinus’s most popular concepts, such as the *regressus* or metaphysical movement back to the One.

German Idealism and Romanticism likewise linked Hemsterhuis to the various discussions around Spinozism, especially because of Friedrich Heinrich Jacobi's role in distributing, characterizing, interpreting, and dialoguing with the Dutch philosopher.¹¹ Jacobi found Hemsterhuis's way of thinking, along with that of Kant, to be helpful disputing the Berlin Enlightenment and its unrestrictive utilization of reason.¹²

Contrary to what Friedrich Schlegel's 1792 letter suggests, Novalis's biographical documents do not furnish any proof of having read Hemsterhuis's works before 1797.¹³ In fact, the first text mentioning the Dutch philosopher is a detailed series of annotations on his thought: the *Hemsterhuis-Studien*, which was most probably written before the 30th of November 1797. This can be inferred from the letter Novalis sent to August Wilhelm Schlegel that same day:

Only now have I been able to separate myself from Hemsterhuis – so far, even my trip has been delayed. I leave here tomorrow, and go straight to Freiberg. I'll be in Dresden, I think, for Christmas. I have written to Berlin. Now that I am settled, I hope to write more assiduously to Berlin and Jena.¹⁴

In the letter, Novalis reveals an engagement with Hemsterhuis's philosophy, and how difficult it was for him to separate himself from the Dutch philosopher's texts. In addition to the *Kant und Eschenmeyer-Studien* and the *Fichte-*

¹¹ Daniel Whistler gives a detailed account of Hemsterhuis's reception in the life and thought of Jacobi. He essentially shows how Jacobi found a philosophical partner in Hemsterhuis, and how the Dutch philosopher plays a threefold role for the German thinker: as trigger, as character, and as author. Daniel Whistler, "Jacobi and Hemsterhuis", in *Friedrich Jacobi and the Ends of the Enlightenment: Philosophy and Religion at the Crux of Modernity*, ed. by Alexander J. B. Hampton (Cambridge: Cambridge University Press, 2022).

¹² For further details on Jacobi's use of Hemsterhuis against the Berlin Enlightenment, see Maria Jimena Solé, *Recepción, interpretación e influencia de Spinoza en Alemania durante el siglo XVIII. Historia de la santificación de un filósofo maldito* (Universidad de Buenos Aires, 2010), 192–217.

¹³ Despite the lack of documentary evidence, it is still possible that Novalis was already quite aware of Hemsterhuis's philosophical concepts, and could even have read some of his writings, especially considering his thought had been disseminated in the German-speaking world through the early translations of Herder (*Lettre sur les Désirs*, 1781) and Jacobi (*Alexis ou de l'âge d'or*, 1787). According to H. J. Balmes's commentary in the Hanser edition of Novalis's writings, these translations, along with the 1782 edition entitled *Vermischten philosophischen Schriften des H. Hemsterhuis*, would have opened the path to the intensive reading of Hemsterhuis within the Romantic circle. See Hans Jürgen Balmes, "Kommentar zu Hemsterhuis und Kant- Studien" in Novalis, *Werke, Tagebücher und Briefe Friedrich von Hardenbergs. Dritter Band. Kommentar von Hans Jürgen Balmes*, eds. Hans-Joachim Mähl and Richard Samuel (Passau: Carl Hanser, 1987), 316.

¹⁴ HKA IV, 237.

Exzerpte, the *Hemsterhuis-Studien* were also written in 1797. These series of notes on different authors are emblematic examples of Hardenberg's return to his philosophical studies after the death of his fiancée Sophie von Kühn in March of the same year.

In particular, most of the notes in the *Hemsterhuis-Studien* refer to the famous *Lettre sur l'homme et ses rapports*, to which Novalis pays special attention, especially regarding the unique concept of "moral organ" (*organe moral*) and its anthropological and epistemological implications. To a lesser extent, he takes notes on *Alexis ou l'âge d'or* and *Lettre de Dioclès à Diotim sur l'Athéisme*, sometimes merely copying Hemsterhuis's words, and sometimes interpreting them more freely.

Various themes, including love, morality, science, religion, human nature, and perfectibility, which are all deeply related to Hemsterhuisian philosophy, are discussed and examined at length in Novalis's *Hemsterhuis-Studien*. After a brief reappearance in the fragments of *Blüthenstaub / Vermischte Bemerkungen* (1798)¹⁵, Hemsterhuis again receives full attention from a different perspective in *Das allgemeine Brouillon. Materialien zur Enzyklopädistik* (1798-1799), where Novalis tries to conceive an original system that can be useful for all possible knowledge: encyclopedistics.

In the *Brouillon*, Hardenberg refines his earlier remarks on Hemsterhuis, illustrating how the Dutch philosopher's thought tends towards a new epistemological conception capable of encompassing all the sciences and even all knowledge. Entries 196-201 of Novalis's work clearly account for a detailed re-reading of his own *Hemsterhuis-Studien*.¹⁶ Moreover, it can be assumed that Hemsterhuis appears in many other *Brouillon* notes that indirectly refer to his thinking, especially his ethics and philosophy of science.

In contrast, the notes written from 1799 to 1801, after his research on encyclopedistics, do not seem to consider Hemsterhuisian philosophy as a significant theme. However, many oblique references continue to appear in

¹⁵ In fragment 106, Novalis describes Hemsterhuis as a lyric philosopher: "Hemsterhuis is very often a logical Homerida" Novalis, *Schriften. Die Werke Friedrich von Hardenbergs. Zweiter Band. Das Philosophische Werk I* (henceforth HKA II), eds. Richard Samuel, Hans-Joachim Mähl, and Gerhard Schulz (Stuttgart: Kohlhammer, 1981), 463.

His own *Hemsterhuis-Studien* also inspire fragment 6 of *Blüthenstaub / Vermischte Bemerkungen*: "Never will we fully comprehend ourselves, but we will and can do much more than comprehend ourselves" (HKA II, 413). Respectively, note 22 from the *Hemsterhuis-Studien* affirms: "Accordingly, man feels *passive* only at the level of mere judgement. We will never fully comprehend ourselves – but we will and can do *much more* than comprehend ourselves" (HKA II, 363).

¹⁶ HKA III, 275-276.

Novalis' literary works.¹⁷ That is not uncommon with respect to Hardenberg's prose and poetry, since his philosophical and especially his scientific background frequently manifest themselves from his early poetry to his late novels.¹⁸

Amidst this intellectual relationship between Hemsterhuis and Novalis: what is it that leads us to suggest a strong connection between these authors, especially regarding morality and science? I would argue that this link is mostly rooted in the *Lettre sur l'homme et ses rapports*, firstly because Hemsterhuis outlines an original conception of science and morality throughout this essay; and secondly because it is the philosophical oeuvre that Novalis excavates to best articulate his own scientific-moral project of encyclopedistics.¹⁹

2. Morality and Science in Hemsterhuis' *Lettre sur l'homme et ses rapports*

Originally published in 1772 in French, the *Lettre sur l'homme et ses rapports* was read and interpreted throughout Europe. Diderot, Herder, Jacobi, Goethe, Hamann, among other thinkers, all studied this text. Although it is

¹⁷ For instance, Novalis' biography by Gerhard Schulz analyzes in detail how the theoretical reception of Hemsterhuisian thought operates in the poem *An Tieck*, where Hardenberg describes the growth of a child's "inner sense" (*innrer Sinn*). See Gerhard Schulz, *Novalis. Leben und Werk Friedrich von Hardenbergs* (München: C.H. Beck, 2011), 210; 220–31.

¹⁸ For a few examples of this link between poetry and science, see Jocelyn Holland's chapter devoted to the discourse of the natural sciences as well as its metaphors in Novalis' novel *The Apprentices of Sais (Die Lehrlinge zu Sais)*: Jocelyn Holland, *German Romanticism and Science. The Procreative Poetics of Goethe, Novalis, and Ritter* (New York: Routledge, 2009), 95–115. We also recommend the study on the use of mathematics in *Heinrich von Ofterdingen* by Franziska Bomski, *Die Mathematik im Denken und Dichten von Novalis. Zum Verhältnis von Literatur und Wissen um 1800*, 147–208. See too Jürgen Daiber's work on the role of experiment and experimentation in both of Novalis' unfinished novels: Jürgen Daiber, *Experimentalphysik des Geistes. Novalis und das romantische Experiment* (Göttingen: Vandenhoeck & Ruprecht, 2001), 169–262.

¹⁹ It could be argued that Johann Gottlieb Fichte's *Grundlage der gesamten Wissenschaftslehre* (1794–95) actually constitutes the most influential work in Novalis' theoretical conception of science and morality, given the thorough study and reception in Novalis' *Fichte-Studien*, *Fichte-Exzerpten* and even within *Das allgemeine Brouillon*. In fact, Hardenberg refers to Fichte's system as "the scheme of relations of science in general" ("*das Relationsschema der Wissenschaften überhaupt*") (HKA III, p. 378). However, we agree with Dalia Nassar on the even more decisive influence of Hemsterhuis' philosophy regarding neither morality nor science, but the connection between them both in favor of a universal knowledge, which is to be accomplished through the moral organ. In this respect, Nassar emphasizes what she calls "the relational dimension of moral experience". Dalia Nassar, "Beyond the Subjective Self: Hemsterhuis, Kant, and the Question of the Whole", in *The Romantic Absolute. Being and Knowing in Early German Romantic Philosophy, 1795–1804* (Chicago, Chicago University Press, 2013), 41.

a relatively extensive philosophical treatise in the form of a letter, this work is not structured into chapters or sections.²⁰ In fact, the basic definition of one of the key concepts in the whole essay, namely, the notion of organ (*organe*), can be found on the very first page:

A being which has the faculty of sense can have a sensation of another substance only by means of ideas or images, which arise from the relations that hold between this substance [on the one hand] and [on the other] this being or what separates it from this being, which I call organ: that is, I dub organ not only the eye that sees, but also the light reflected from the object; not only the ear that hears, but also the air set in oscillation by the movements of the object.²¹

Hemsterhuis here provides a broad definition of organ: it is the only instrument through which any relationship between objects and sensations can take place. In this regard, “organ” means, on the one hand, specifically what we commonly name “organ” in our bodies, such as our eyes or ears. On the other hand, it refers to the environmental *medium* through which a certain substance is perceived. Therefore, we take note of substances or things only through organs. In other words: it is solely because of the existence of organs that we are capable of actually connecting ourselves to the external world and of further developing any kind of knowledge.

In addition, we can either perceive a substance through our organs temporarily or remember it based on previous experiences. In the latter case, we are using an “intuitive faculty” that allows us to “recall ideas by means of signs”, and consequently, cause them to “coexist.”²² Hemsterhuis terms this faculty “reason” (*raison*), and indicates it as the distinctive factor between human and animal beings. The more ideas that coexist in a given individual, the more intelligent or capable of reasoning that individual will be.

For Hemsterhuis, the universe unfolds itself through certain faces (*faces*) by which the seeds (*semences*) of which it is composed, as well as its diverse combinations, can be perceived:

Just as the organ of touch reveals the universe as tangible to the individual man, just as hearing and air reveal the universe as audible to him, just as sight and light reveal the universe as visible to him –

²⁰ For a full perspective on the form and composition of Hemsterhuis’s text and its context, reception, and translations, see Jacob van Sluis’s “Introduction” in *François Hemsterhuis. Œuvres philosophiques* (Leiden: Brill, 2015), 3–83.

²¹ Hemsterhuis, *Œuvres philosophiques*, 184, EE 1, 89.

²² Hemsterhuis, *Œuvres philosophiques*, 188, EE 1, 91.

so what he calls heart or conscience, and society with homogenous beings, reveal the universe as moral to him.²³

Since the various faces of the universe are characterized by their immeasurability (*incommensurabilité*), the moral organ, which is also designated as heart²⁴, conscience or sentiment, displays a completely heterogeneous perspective in comparison to sight, touch or any other organ. But what makes the moral organ even more unique is that it is the only one that permits us to “perceive our existence”, compared to the other organs, “which only allow us to perceive the relations with things outside us.”²⁵

Hemsterhuis laments how underdeveloped the moral organ is compared to hearing or sight. He argues that the only way in which the human being can cultivate “the moral face of the universe” (*la face morale de l’univers*) is through interactions within society, namely “communication with rational beings, with free wills (velleities), with primitive causes.” Thanks to these interactions, the “intuitive faculty” of the moral organ can ultimately derive the internal laws of the relationships within society.²⁶

The moral organ differs from the intelligence precisely because it is not a capacity that abstracts phenomena in order to create a general concept or idea. In fact, desire, duty, and virtue are not merely universal concepts but basic sensations obtained by the moral organ. According to Hemsterhuis, when we experience those sensations we feel completely passive as would be the case with any visible, audible, or physical sensation. The only difference lies in the perspective: from the standpoint of the moral face of the universe, we tend to feel that “*I desire* and *I have to*”, precisely because in this internal reign of morality “the I itself becomes an object of contemplation.”²⁷

Hemsterhuis points out that the moral organ is diversely developed in each human being, resulting in different degrees of duty and virtue. But the ultimate goal of humanity remains the same. Let us give passage quoted above in more detail:

the greatest happiness to which it seems that man can aspire at all times resides in the increase of perfection or sensibility of the moral

²³ Hemsterhuis, *Œuvres philosophiques*, 230, EE 1, 103 (trans. modified).

²⁴ By associating the moral organ with the heart (*cœur*), Hemsterhuis’s conception approaches not only Early German Romanticism, but most organicism theories from the Modern Era as described by Eric Ackermann, *Worte und Werte. Geld und Sprache bei Gottfried Wilhelm Leibniz, Johann Georg Hamann and Adam Müller* (Tübingen: Max Niemeyer, 1997), 282–83.

²⁵ Hemsterhuis, *Œuvres philosophiques*, 232.

²⁶ Hemsterhuis, *Œuvres philosophiques*, 232.

²⁷ Hemsterhuis, *Œuvres philosophiques*, 250, EE 1, 105.

organ, which will increase his joys and bring him closer to God and the active principles subordinate to Him.

The greatest wisdom to which he can lay claim consists in rendering all his actions and thoughts analogous to the impulses of his moral organ.²⁸

The goal of human existence manifests itself as a twofold task: on the one side, it is an ethical seeking of happiness. On the other side, it is a quest for harmony, namely acting and thinking in accordance with the moral organ's predisposition. Hence, Hemsterhuis concludes that only through the cultivation of the sensibility of the moral organ and not through prayers, superstition, or merely theoretical philosophical systems, can mankind attain its full well-being, thereby drawing closer to God.²⁹

At the end of his *Lettre*, Hemsterhuis outlines a definition of science:

The science or knowledge of man, consists in the ideas that are acquired by means of the senses, and in [the ideas] of the relations that hold between these ideas. The former [ideas] are isolated and represent isolated objects; the latter derive from the coexistence of that number of the first [kind] which the intuitive faculty can embrace at once. The totality of knowledge, or science in general, is therefore composed of the sum of acquired ideas and of ideas by relation.³⁰

As Hemsterhuis points out, “the totality of knowledge or of science in general” (*la totalité des connaissances, ou de la science en général*) requires the multiplication of both types of ideas, namely those that are directly received and those corresponding to the relationships between them. Only when gathering this nearly infinite number derived from an enormous number of combinations could mankind claim to reunite with God. If this moment arrives, human science will have been demonstrated to be perfect, and more importantly, it would be one and only as it is originally considered by God, who truly looks beyond any kind of human division into unconnected scientific branches.³¹

²⁸ Hemsterhuis, *Œuvres philosophiques*, 256, EE 1, 112.

²⁹ Hemsterhuis, *Œuvres philosophiques*, 265-278, EE 1, 118.

³⁰ Hemsterhuis, *Œuvres philosophiques*, 288, EE 1, 122.

³¹ The longing for unity is a consistent topic in Hemsterhuis's *Lettre sur l'homme et ses rapports*, and it also appears in his *Lettre sur les désirs* (1770). Rooted in Plato and Spinoza, Hemsterhuis's philosophy directly and indirectly influenced the commonly called *Vereinigungsphilosophie* as shown by Claudia Melica in the case of Hegel's thought: Melica, Claudia, “Longing for Unity: Hemsterhuis and Hegel”, *Hegel Bulletin*, 28/1 (2007): 143–67.

To conclude this section, it is worth highlighting two Hemsterhuisian notions that originated in astronomy but have been metaphorically manifested throughout human history: the aphelia and the perihelia.³² Hemsterhuis affirms that:

The science of man, or the human mind, appears to move around perfection, like comets around the Sun, by describing very eccentric curves: it likewise has its perihelia and its aphelia [...]

I note that, in every perihelion, there has reigned a general spirit which spread its tone or its colour over all sciences and all arts, or over all branches of human knowledge.

In our perihelion, this general spirit could be defined by the spirit of geometry or the symmetrical [spirit]; in the perihelion of the Greeks, by the moral or sentimental spirit.³³

Although not exactly in the same perihelion as in ancient Greece, Hemsterhuis finds during his own time a flourishing era in terms of scientific knowledge, a fact which is especially noticeable in the geometrical spirit that can measure all kinds of phenomena. This happens mainly because of an overdevelopment of the organs of sight and hearing, which leads mankind to the inevitable specialization and separation of the sciences.

In fact, Hemsterhuis regrets how human ambitions to hear and to contemplate every external physical object has undermined the sensibility of the moral organ, which he considers to be exceedingly underdeveloped in his own epoch:

I admit it: but does man need the arts? Yet what a prodigious number of ideas does he owe to the arts and sciences! I admit it once more: but do you believe that all these intelligences would not have been refined by love, by friendship, by their relation to the Supreme Being? Do you believe that they would not have made as many discoveries concerning the moral face of the universe as we have made concerning the visible or audible face?³⁴

We can finally define Hemsterhuis's concept of morality. It is the sensitive or intuitive capacity of the human being to act in favor of his own development

³² While the aphelion is the point in the Earth's orbit where it is farthest from the Sun, the perihelion is the point of the Earth's orbit that is nearest to the Sun. Hemsterhuis and Novalis use these astronomical concepts as analogous of the epistemological-moral development of mankind.

³³ Hemsterhuis, *Œuvres philosophiques*, 292; EE 1, 123.

³⁴ Hemsterhuis, *Œuvres philosophiques*, 300; EE 1, 126.

as an individual and as a species. Still, Hemsterhuis claims that the moral face of the universe is being forgotten by his own era. This oblivion forces humanity to artificially divide all science into a large number of disciplines, some of them which seem barely connected. The contemporary perihelia described by Hemsterhuis lacks a spirit for the unity for all science, consequently preventing the enhancement of the particular disciplines through a development of the moral organ.

3. Novalis's Unification of the Sciences through Morality

Hemsterhuis's anthropological and epistemological diagnosis can be found several decades after his *Lettre sur l'homme et ses rapports* in Novalis's theoretical reflections, especially in his so-called encyclopedistics. Hardenberg makes it clear in *Das allgemeine Brouillon* that the division of the sciences has been excessive. Accordingly, he believes that mankind needs to find its way back to the union of all knowledge or at least try to reconnect its multiple separated expressions.

This particular purpose does not imply that Novalis refuses classifications and their effectiveness. In fact, he outlines several schemes of the possible division of sciences, most of them based on the encyclopedias he read at that time.³⁵ For example, in entry 196, he uses the title ENCYCLOPEDISTICS to specify two basic types of sciences:

Memory sciences = elementary sciences of Nature (Elements of Nature. Elements of art.) 2. Sciences of combinatorial ability = sciences of compounds etc.

1. Absolute memory sciences. Derived. 2. absolute combinatorial sciences. *Derived*.³⁶

³⁵ Although it is not precisely an encyclopedia in the common meaning of the word, Novalis's project in *Das allgemeine Brouillon* employs numerous manuals, lexica, and dictionaries as well as other scholarly works in order to better comprehend and classify the sciences. Among others, Hardenberg thoroughly studies D'Alembert and Diderot's *Encyclopédie* (1751-1772) (especially the *Discours préliminaire* by D'Alembert), Wilhelm Traugott Krug's *Versuch einer Systematischen Enzyklopädie der Wissenschaften* (1796-1797), Johann Heinrich Lambert's *Neues Organon oder Gedanken über die Erforschung und Bezeichnung des Wahren und dessen Unterscheidung vom Irrthum und Schein* (1764), and Dietrich Tiedemann's *Geist der spekulativen Philosophie* (1791-1797). A historical and intellectual account of the encyclopedic sources of Novalis's *Brouillon* can be found in Hans-Joachim Mähl, "Novalis und Plotin", in *Jahrbuch des Freien Deutschen Hochstifts* (Tübingen: Max Niemeyer, 1963), 139–250.

³⁶ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 30 (HKA III, 275).

This brief classification is a good example of Novalis's use of textual sources. The entry mixes Jean le Rond D'Alembert's division from the *Discours préliminaire de L'Encyclopédie* with Hemsterhuis's classification from the *Lettre sur l'homme et ses rapports*. The term "memory sciences" (*Gedächtniß Wissenschaften*) seems to be related to D'Alembert's introduction to the French encyclopedia, where he classifies all knowledge according to its origin: memory, reason, and imagination (*mémoire, raison, imagination*).³⁷ But the expression "memory sciences" could also be associated with Hemsterhuis's "ideas acquired by means of the senses" (*idées acquises par le moyen des sens*), which are essentially characterized as "isolated" and "representing isolated objects."

In addition to this conceptual relationship, Hemsterhuis inspires Novalis's second category of knowledge: the "sciences of combinatorial ability" or "absolute combinatorial sciences", which seems to be rooted in the "ideas of relationship" from the *Lettre sur l'homme et ses rapports*. In the aforementioned entry 196, Hardenberg shows his encyclopedic interest in dividing sciences, but only to consider the more significant combinatorial aspect intrinsic to human knowledge. This interest is shared by Hemsterhuis, and it is related to D'Alembert and Diderot's conception of encyclopedia, which may be understood as a huge circle that connects all knowledge.³⁸

³⁷ D'Alembert also defines memory within his "system of direct knowledge", from which originates the science of history and its derivations: "memory can only consist in the pure passive and mechanical-like collection of the same knowledge." Jean le Rond D'Alembert, *Discours préliminaire de l'Encyclopédie* (Paris: Gonthier, 1965), 62.

³⁸ There seems to be only one article in the entire *Novalis-Forschung* that shows encyclopedistics in the light of Hemsterhuis's philosophy of science: the aforementioned "Vers une science totale : l'encyclopédistique vivante de Novalis". Throughout this text, Laure Cahen-Maurel describes the idea of an all-encompassing- unifying "science of sciences" in *Das allgemeine Brouillon's* encyclopedistics. She highlights that Novalis "keeps emphasizing, in line with Hemsterhuis, the solidarity of each particular science with the rest, and the permeability between them." Laure Cahen-Maurel, "Vers une science totale", 9. We also feel compelled to add that D'Alembert's and Diderot's *Encyclopédie* also attempts to combine and link every science to a whole system of knowledge. This particular purpose can be observed in the so-called "combined designators" (*désignants combinés*) which classify entries not only thematically, but also relationally. This operation of combining two or more designators allows the reader of the encyclopedia to connect different domains of knowledge in one particular entry. For further information about the use of combined designators by D'Alembert and Diderot, see Alain Cernuschi's article on the entry "erudition" (*érudition*): Alain Cernuschi, "Des désignants combinés ou vers une dimension opératoire des articles de l'Encyclopédie", *Recherches sur Diderot et sur l'Encyclopédie*, 40–41 (2006), 93–106.

Entry 198 from *Das allgemeine Brouillon* follows the epistemological reflections from the previous notes, and can be compared with the annotations from the *Hemsterhuis-Studien*, as shown in the following table:

<p style="text-align: center;">Novalis, <i>Das allgemeine Brouillon</i> (1798-1799)</p>	<p style="text-align: center;">Novalis, <i>Hemsterhuis-Studien</i> (1797)</p>
<p>ENCYCLOPEDISTICS. According to Hemsterhuis, science on the whole is composed of the product of the memory sciences, or given knowledge, and of the rational sciences, or created (acquired) knowledge. The latter are merely the work of man. Therefore, science on the whole is generally the <i>total function</i> of the <i>data</i> and the <i>facts</i> — the <i>n</i>-th power of the <i>binomial series of the data and the facts</i>. Here <i>combinatorial analysis</i> would be necessary.³⁹</p>	<p>The totality of knowledge, or science on the whole consists therefore in the sum of the <i>received</i> and the <i>acquired</i> knowledge — since all relationship ideas are the <i>work</i> of man. The greatness of human science will therefore be determined through the sum of the primitive ideas, multiplied by the sum of the secondary ideas. [pp. 227-28].⁴⁰</p>

In both texts, Novalis follows almost exactly the division of knowledge proposed by Hemsterhuis. On the one hand, there are isolated or received ideas (*erhaltene*). On the other hand, there are acquired or created ideas (*erworbene*). All sciences can be derived from this classification, and they can also be combined *in infinitum* as if they were mathematical power series.⁴¹ The expressions used by Hardenberg are mainly translations of Hemsterhuisian “received ideas” (*idées acquises*) and “relationship ideas” (*idées de rapport*).⁴²

³⁹ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 30 (HKA III, 275).

⁴⁰ HKA II, 367.

⁴¹ The Novalisian idea of classifying knowledge (following Hemsterhuis’s concepts) in order to give a mathematical scheme of sciences, whose facts and data can be related and even combined is thoroughly addressed by Franziska Bomski: *Die Mathematik im Denken und Dichten von Novalis*, 141-146.

⁴² Note that it was decided to translate “*erhalten*” as “received” and “*erworben*” as “acquired”. This is in response to a compromised solution, given that Hemsterhuisian

The only significant addition from Novalis's *Brouillon* in comparison to his own *Hemsterhuis-Studien* and Hemsterhuis's *Lettre sur l'homme et ses rapports* is the equivalence of memory and received sciences, a classification that we already attributed to the reading of D'Alembert's *Discours préliminaire* at that time.

The particular interest of Novalis in what he calls "science on the whole" (*Wissenschaft im Großen*), a concept he derives from Hemsterhuis's "total science" (*science totale*) or "science in general" (*science en général*), should also be noted. This all-unifying knowledge would be obtained by means of a mathematical calculation, namely multiplication, which in this particular case, involves the two aforementioned categories of sciences.

The same idea of connecting knowledge through multiple epistemological or mathematical methods, such as analogy, multiplication, combination, exponentiation, or romanticization, appears frequently throughout *Das allgemeine Brouillon*. Therefore, this recurring idea should be viewed as Novalis's original attempt to solve the philosophical problem of the disunity of the sciences.⁴³

Hardenberg, who was almost completely up-to-date with most of the natural and formal sciences of his time⁴⁴, considers the division of scientific disciplines as a completely artificial process that hides knowledge's true nature. Entry 199 from *Das allgemeine Brouillon* refers to Novalis's previous *Hemsterhuis-Studien* as well as to Hemsterhuis's remarks in his *Lettre sur l'homme et ses rapports*, as shown in the following table:

idées acquises would better correspond to Novalis's *erhaltene Kenntnisse* if we consider this expression in an isolated way. But Hemsterhuis's *idées de rapport* do not appear to be translated literally in Novalis's text. Instead, he opts for using *erworbene Ideen* or *Kenntnisse*, which we translate here – for lack of a better expression, as "acquired" or "created", in order to slightly separate these kinds of ideas from the passive nuance of the "received" ones. In this case, it could be argued that Novalis's use of *erworben* would have failed to note the difference between what is merely acquired (*acquire*) or received, and what is actively created by combining and relating.

⁴³ For further details on Novalis's approach to the problem of knowledge overflow, the constant separation of sciences, and the difficulties related to the management of scientific information, see Santiago Napoli and Maria Inés Silenzi, "Novalis y H. Dreyfus frente a la sobrecarga de información. El fracaso del aspecto epistemológico de la relevancia", *Eikasia* 95 (September–November, 2020): 345–68.

⁴⁴ Novalis's scientific skills as well as his training are detailed and discussed in chapters in Herbert Uerlings (ed.), *Novalis und die Wissenschaften* (Tübingen: Max Niemeyer, 1997).

Novalis, <i>Das allgemeine Brouillon</i> (1798-1799)	Novalis, <i>Hemsterhuis- Studien</i> (1797)	Hemsterhuis, <i>Lettre sur l’homme et ses rapports</i> (1772)
ENCYCLOPEDISTICS. We owe the most sublime truths of our day to contact with the long-separated elements of the total-science. Hemsterhuis. ⁴⁵	Sciences are separated by the lack of genius and sharpness – the relationships between them are too complicated for the human intellect and dullness, and too separated from each other. We owe the most sublime truths of our day to those combinations between the long-separated elements of the total-science. ⁴⁶	The science of man, which is properly one, has formed innumerable branches in the course of time, to the extent that the intuitive faculty has found specific clusters of homogeneous or homologous objects, whose ideal coexistence was the easiest to achieve, or whose particular relations were less distanced than between more heterogeneous objects. ⁴⁷

Although Hemsterhuis seems to describe what is in essence the same scientific scenario as Novalis, the expression “the most sublime truths of our day” comes entirely from the latter author. It is clear to Hardenberg that these “truths” were reached through either the contact (as in the *Brouillon*) or the combinations (as in the *Hemsterhuis-Studien*) of the elements (*Glieder*) of the total science or science on the whole. By emphasizing the relational-combinatorial power of human reason to produce knowledge, Novalis offers a crucial solution to the epistemological problem of the over-specialization of sciences. In contrast to Novalis’s active position, the passage from Hemsterhuis’s *Lettre* mainly focuses on the negative aspect of the separation of the sciences, which originated from the human being’s intuitive faculty to mechanically find homogeneous objects.

Just like any scholar who tries to better understand the subject being studied, Novalis constantly rephrases Hemsterhuis using his own terms. He also reuses some fragments from his own earlier notes. This can be observed above in entry 199 from *Das allgemeine Brouillon*. In this case, in accordance

⁴⁵ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 30 (HKA III, 275).

⁴⁶ HKA II, 368.

⁴⁷ Hemsterhuis, *Œuvres philosophiques*, 290; EE 1, 122.

with the purposes of his encyclopedistics, Hardenberg decides to only mention the unifying character of the total science and its power to produce the greatest truths, consequently leaving unquoted the corresponding previous sentence of the *Hemsterhuis-Studien*, where he specifically addresses the separation of the sciences.

In his own encyclopedistics, Novalis seeks to apply Hemsterhuis's notion of an all-encompassing science as well as its classification. However, it still remains unclear how he proposes to carry this out, given the critical context of an increasing separation of all scientific disciplines. A possible answer to this question appears within Hemsterhuis's philosophical framework. The following table compares entry 197 from *Das allgemeine Brouillon* with its corresponding note in the *Hemsterhuis-Studien* as well as the referred-to passage in Hemsterhuis's *Lettre sur l'homme et ses rapports*:

Novalis, <i>Das allgemeine Brouillon</i> (1798-1799)	Novalis, <i>Hemsterhuis-Studien</i> (1797)	Hemsterhuis, <i>Lettre sur l'homme et ses rapports</i> (1772)
ENCYCLOPEDICTIONS. The magical sciences, according to Hemsterhuis, arise through the application of the moral sense to the other senses— i.e. through the moralization of the universe and the other sciences. ⁴⁸	The <i>superstitious sciences</i> arise through the <i>effectiveness</i> of the moral organ on <i>the other (lower) organs</i> . ⁴⁹	I should have spoken about the extravagance of the adoration of the stars, of animals and of plants; but it is enough to remark that the moral organ gives us real sensations of the Supreme Being's presence; that not only do the other organs communicate movement to the moral organ, but conversely, this organ often communicates to the other organs; ⁵⁰

Entry 197 from *Das allgemeine Brouillon* conceptualizes some of Hemsterhuis's reflections on the moral organ freely, thus giving an account

⁴⁸ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 30 (HKA III, 275).

⁴⁹ HKA II, 367.

⁵⁰ Hemsterhuis, *Œuvres philosophiques*, 274-276; EE 1, 117.

of Novalis's own notion of morality. Following Fichte's primacy of practical over theoretical reason as well as his conception of God as the moral order of the universe⁵¹, Hardenberg finds that the moral aspect of mankind can be understood as its performative capacity to transform separated elements within a teleology of unity. This idea is entirely compatible with Hemsterhuis's concept of moral organ, which also acts as a communicative and unifying force.⁵²

According to both authors, the moral organ is inherently connected with the other organs or senses, consequently generating the so-called "magical sciences" (*magische Wissenschaften*). However, it should be noted that the concept of magic, alongside its derivations, does not appear in Hemsterhuis's treatise. We only find the vague idea of "the extravagance of the worship of stars, animals, and plants" (*l'extravagance des adorations d'astres, d'animaux et de plantes*). It is then plausible that Novalis derived the "superstitious sciences" (*abergläubige Wissenschaften*) (*Hemsterhuis-Studien*) as well as the aforementioned "magical sciences" (in *Das allgemeine Brouillon*) from that particular passage.

Novalis's ambiguous use of Hemsterhuisian concepts is perhaps motivated by his interest in applying the moral organ's power in order to unify and enhance the increasingly separate sciences.⁵³ Consequently, this infinite force developed by humanity plays a significant role in the encyclopedistical task of continually approaching the desired total science or science on the whole.

Some pages before entries 196-199, Novalis indicates how he understands the relationship between morality and magic. Entry 61 of the *Brouillon* asserts:

⁵¹ For further details on Fichte's influence on Novalis's moral conception throughout the *Brouillon*, especially in light of the "moralization of nature" (*Moralisation der Natur*), see Bernward Loheide: *Fichte und Novalis. Transzendentalphilosophisches Denken im romantisierenden Diskurs* (Amsterdam – Atlanta: Rodopi, 2000), 309-319.

⁵² We can even go further in our interpretation by adding that Hemsterhuis's moral organ would operate similarly to Fichte's intellectual intuition, given that in both cases morality functions as a completely intuitive and non-discursive faculty essentially linked to human action.

⁵³ From a Spinozian perspective, this unifying force of the moral organ, which Hemsterhuis also named "heart", can be identified with the concept of love, which in this case could be understood as the infinite power to congregate all entities. This interpretation is supported by Hans Jürgen Balmes: "Kommentar zu Hemsterhuis und Kant-Studien", in *Werke, Tagebücher und Briefe Friedrich von Hardenbergs. Band 3: Kommentar von Hans Jürgen Balmes* (München - Wien: Carl Hanser, 1987), 316-18.

THEOSOPHY. In order to be truly moral, we must endeavor to become magicians. The more moral, the more in harmony *with God*. The more divine—the more in *communion* with God. It is only through the moral sense that God will become perceptible to us. – The moral sense is the sense for *existence*, without *external affection*—the sense for *unity*—the sense for the highest—the sense for *harmony*—the sense for the freely chosen, and innovative, and yet *communal* life—and Being—the sense for the thing in itself—the true *sense of divination* /⁵⁴

In this note, Novalis sees magic as a previous step to what seems to be the highest peak of humanity: morality. The intuitive function of the moral sense or moral organ⁵⁵ operates in a certain way that allows man to harmonize with God through his own “sense of divination” (*Divinationssinn*). By means of the combinatorial and unifying power of its sixth organ, humanity can ultimately reach divinity.⁵⁶ It is evident that the achievement of this ideal would effectively require the possession of the total science, namely, the gathering of all of existing received ideas multiplied by their almost infinite relationship ideas. If that eventually occurs, human knowledge would be close to perfection, and the sciences would no longer be separated or isolated. Just as Hemsterhuis concludes in his *Lettre*:

If man had ideas of all the relations, and all the combinations of these objects, he would resemble God, both in regard to science and in regard

⁵⁴ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 9-10 (HKA III, 250).

⁵⁵ Besides the fact that Hemsterhuis commonly identifies sense and organ, it is clear that Novalis also refers to the moral organ when using the expression “*Moralischer Sinn*”, as shown in *Das allgemeine Brouillon*: “Hemsterhuis’s theory of the moral sense. — His conjectures on the perfectibility and possible infinite use of this sense—Philosophical ethics— poetical ethics.” Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 144 (HKA III, 420).

⁵⁶ This combinatorial-unifying aspect of human knowledge has its roots in Leibnizian mathematics, which Novalis had theoretically mastered when he wrote his *Brouillon*. Contrary to what may be concluded, Hardenberg did not study Leibniz’s mathematics directly, but through the so-called German combinatorial school (*Die kombinatorische Schule*), above all represented at the time by Carl Friedrich Hindenburg. However, it should be noted that the ideas of this school actually derive from Leibniz’s theoretical approaches, and even though Novalis refers to combinatorics in a broad and not exclusively quantitative sense, he indirectly follows the Leibnizian tradition, which was prevalent at that time in German mathematics. For more information on Novalis and the combinatorial school, see Philippe Séguin: “Von der Philosophie zur ars combinatoria. Novalis’ Erwartungen an die Mathematik und die Folgen”, in A. Albrecht, G. von Essen, & W. Frick (Eds.), *Zahlen, Zeichen und Figuren: Mathematische Inspirationen in Kunst und Literatur* (Berlin: De Gruyter), 248–267.

to the state of the universe insofar as we know it, and his science would be perfect.⁵⁷

4. Novalis's Enhancement of the Sciences through Morality

We have already stated that Novalis aspires to the moralization of the sciences through encyclopedistics, i.e., that he conceives an authentic *mathesis universalis moralis*. The full meaning of this expression should be becoming clearer. But it still needs to be demonstrated that Novalis's employment of Hemsterhuis's moral organ is capable of benefiting science from the inside out as it were, namely, via its methods, discoveries, and explanations.

Entry 1082 from *Das allgemeine Brouillon* contends:

Continuation of the *Hemsterhuisian thought* — concerning the peculiar change in the way man pictures the world on account of the Copernican hypothesis—or on the certainty of *celestial bodies* — on the certainty, that the Earth is *suspended* in fresh air.⁵⁸

Throughout the *Brouillon*, Novalis often emphasizes how Copernicus's thesis may function as an inspiration for all the sciences. Indeed, the above entry 1082 connects “the Copernican hypothesis” with “the *Hemsterhuisian thought*” about changes “in the way man pictures the world.” The Copernican method is considered by Hardenberg as a true benefit for all knowledge, since it allows scientists to reverse the current perspective on any phenomena, consequently shifting the dominant theoretical point of view. In other words, Novalis maintains that future scientists should learn to “turn data and methods around.”⁵⁹

⁵⁷ Hemsterhuis, *Œuvres philosophiques*, 288-290; EE 1, 122.

⁵⁸ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 181 (HKA III, 467). This entry also gives an account of the role played by the notion of ‘hypothesis’ in Novalis's thought, which constitutes a motor for new scientific discoveries and theoretical revolutions. Regarding this particular aspect, see Jocelyn Holland's insightful interpretation: “Elements from earlier eighteenth-century discussions of the hypothesis – the idea of uncertainty, of something risked, of a tentative foundational gesture that is merely one in a series of steps – return, transformed, in the worldview of Early German Romanticism.” Jocelyn Holland, “Ein Schuß in die blaue Luft. The Early German Romantic Hypothesis”, *Symphilosophie: International Journal of Philosophical Romanticism* 3 (2021): 92.

⁵⁹ This particular expression is taken from entry 517 from *Das allgemeine Brouillon*: “All good researchers—physicians, observers and thinkers, proceed like Copernicus — they turn the data and methods around, to see whether or not they fit better this way”. Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 92 (HKA III, 355). Laure Cahen-Maurel identifies this methodological revitalization of the Copernican Turn by Novalis with the *inversus* method, that is, the backwards movement of the human being's infinite intellectual activity. She also explains how this principle of “turning data and methods around” works in Hardenberg's encyclopedistics not only

Insofar as Novalis's reading of scientific progress is driven by revolutions, it may be said to resemble Thomas Kuhn's historical perspective from the second half of the 20th century.⁶⁰ This relates in turn to a passage from the *Lettre sur l'homme et ses rapports*, in which Hemsterhuis affirms that:

The greatest revolution that took place in mankind's ideas was when philosopher taught them, in an incontestable manner, that this globe was just a planet like so many others; that this important thing was a nothing, and that the universe was infinite.⁶¹

These astronomical metaphors are repeatedly deployed in both Novalis's *Brouillon* and in Hemsterhuis's *Lettre* to illustrate scientific procedures, and especially to point out the extent to which certain existing methodological issues, such as the lack of dynamism in scientific practice, might effectively be overcome. In this respect, the question occupying Novalis is not simply how to unify knowledge but how to enhance and increase it, i.e., how to potentialize or raise all of its forces to a higher power. The solution to this problem is exemplified in a Hemsterhuisian topic *par excellence*: the development of humanity's sensibility to the moral organ.

According to both these authors, it is the moral organ that speaks the intuitive language of the harmony of all things. For this very reason, it is obvious that science would greatly benefit from its proper unfolding and cultivation. Unfortunately, the cyclical movement of human history occasionally experiences a *regressus* or backsliding in some of its aspects. This idea too is directly linked with astronomy, as shown in the following table:

because of the influence of Hemsterhuisian thought, but also because of the heritage of Fichte's concept of reciprocal determination (*Wechselbestimmung*). See Laure Cahen-Maurel, "Vers une science totale", 104–108.

⁶⁰ Novalis's epistemology attempts to question scientific knowledge as something linear and constant. In this regard, the revaluation of the imagination as a malleable form of knowledge can be understood precisely as a response to a linear and constant conception of scientific progress, as shown by Jonas Maatsch: "*Naturgeschichte der Philosopheme*". *Frühromantische Wissensordnung im Kontext* (Heidelberg: Winter, 2008), 145-151 and 175-190.

⁶¹ Hemsterhuis, *Œuvres philosophiques*, 278; EE 1, 118. Although Hemsterhuis does not mention Copernicus and his theory, and focuses instead on the "philosophers" (*des Philosophes*), we find this passage useful to illustrate how he and Novalis share the same preoccupation regarding scientific theories and their future. The reference was originally suggested by Hans-Joachim Mähl "Das Allgemeine Brouillon: Anmerkungen", in *Schriften: Die Werke Friedrich von Hardenbergs. Dritter Band. Das Philosophische Werk II* (Stuttgart: Kohlhammer, 1983), 994.

Novalis, <i>Das allgemeine Brouillon</i> (1798-1799)	Novalis, <i>Hemsterhuis-Studien</i> (1797)	Hemsterhuis, <i>Lettre sur l'homme et ses rapports</i> (1772)
<p>THEORY OF HUMAN HISTORY. Hemsterhuis's and Dumas's remarkable ideas on the aphelia and perihelia of the human spirit — the character of every perihelion, its origin and <i>formation</i>.⁶²</p>	<p>The human spirit moves around the sun – it has its perihelia and its aphelia. In each perihelion, a certain spirit has indicated the tone.⁶³</p>	<p>The science of man, or the human mind, appears to move around perfection, like comets around the Sun, by describing very eccentric curves: it likewise has its perihelia and its aphelia; but, by means of history, we know only about one and a half of its revolutions – that is, two perihelia and the aphelion which separates them. I note that, in every perihelion, there has reigned a general spirit which spread its tone or its colour over all sciences and all arts, or over all branches of human knowledge.⁶⁴</p>

Here Novalis seems to paraphrase Hemsterhuis's and his editor Frédéric Dumas's "remarkable ideas" (*merckwürdige Ideen*) concerning the progress of the human spirit.⁶⁵ According to the *Lettre sur l'homme et ses rapports*, history manifests two periods of flourishing culture – or perihelia – as well as a dark age of ignorance, that is, an aphelion. The first perihelion took place in Ancient Greece, and the second one occurred in the modern age. The difference between the two ages does not merely concern the dominant

⁶² Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 30 (HKA III, 275).

⁶³ HKA II, 368.

⁶⁴ Hemsterhuis, *Œuvres philosophiques*, 292; EE 1, 123.

⁶⁵ For further details on the relationship between Dumas and Hemsterhuis, see van Sluis, "Introduction", 20–22.

science of the period, or as Novalis defines it, the “tone of the spirit” (*der Ton des Geistes*). Rather, what distinguishes the two perihelia is the degree of development of the moral organ.

If the perihelion of the modern age was characterized by its symmetry and the development of calculus, mechanics, and geometry, Ancient Greece’s perihelion was fundamentally defined by the development of the moral organ:

In the perihelion of the Greeks, or of the moral or sentimental spirit, the ideas of love, gratitude, ingratitude, hate, vengeance, and jealousy were ideas of relation almost as clear and perfect and determinate as those of a triangle and a circle.⁶⁶

Hemsterhuis’s diagnosis of the current state of human knowledge, therefore, is neither completely optimistic nor fully pessimistic. The philosopher is convinced that the natural sciences effectively contributed to a better understanding and determination of the world. However, he finds that the moral development of humanity at his time is on the verge of reaching its lowest point.⁶⁷ This manifests itself in society’s lack of sensitivity for justice, virtue, or duty, and ends up being a completely destructive factor for progress, since an increase in the sensitivity of all organs, especially the moral one, is precisely what is required for humanity to evolve.

The same diagnosis is present in Novalis’s *Brouillon*. Some of the epistemological observations he develops throughout his encyclopedistics advocate the education of the moral organ. They aim to enhance humanity’s general knowledge, which includes thinking as well as acting. If the natural sciences and logic primarily apply to theoretical thinking, the moral sciences directly apply to human action. This is argued for in entry 49 when Novalis affirms:

/ Originally, *knowledge* and *action* are *mixed*—then they separate, and at their goal they should again be *united*, and cooperative, harmonious, but not *mixed*. One will *at once* know and act in a reciprocal manner—know, how and what one does, do, how and what one knows. / ⁶⁸

⁶⁶ Hemsterhuis, *Œuvres philosophiques*, 294.

⁶⁷ This decline of holism in the moral sphere appears also in Hemsterhuis’ work *Alexis, ou de l’âge d’or* (1787) also read by Novalis. For further details on this diagnosis as well as the future horizon of a reconciliation of all organs, see Laure Cahen-Maurel’s article: “L’âge d’or futur. Novalis relu a partir de Schiller et de Hemsterhuis”, *Klesis*, 40 (2018), 111–14.

⁶⁸ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 7 (HKA III, 246).

This reflection is once again related to the astronomical metaphor previously employed about the Earth's orbit. If the first perihelion helped humanity to discover its theoretical capacity and the second one raised it to a higher power, it is solely through the union of these two forces that a harmonious enhancement of knowledge will finally be achieved, thus contributing to overcoming the lack of dynamism in science. It is imperative: both theoretical and practical organs (or in Kantian terms, "theoretical and practical reason") need to be harmoniously developed in order to clear the path for human's perfectibility. We should note that this will provide the current perihelion with an even more universal spirit, and in Hemsterhuis's words, "it will bring humanity closer to God", not just with regard to morality *strictu sensu*, but especially regarding science and its dynamic evolution. Since both Novalis and Hemsterhuis understand knowledge as intrinsically relational and combinatorial, its further development will require the consonant and simultaneous development of all its organs.

5. Conclusion

At the beginning of this article it was suggested that the meaning of morality we intended to connect with science would be uncorrelated with the concept as it is mostly used in contemporary philosophy and even in modern bioethics. Such a clarification was not futile, since the conception of morality of German Romanticism is, even today, hardly taken into consideration by most of the specialized studies that claim to link scientific knowledge with the moral sciences.

In contrast, this article has attempted to show that morality plays a significant role in the development of science in the case of Novalis's encyclopedistics, and this is largely due to the impact of Hemsterhuis's *Lettre sur l'homme et ses rapports* on *Das allgemeine Brouillon*. In fact, the Hemsterhuisian conception of morality and science is a true philosophical model for Hardenberg's idea of a *mathesis universalis moralis*, in which the latter may be understood as a genuine "total science" that has become integrated and boosted by the power of the moral organ.

To explore the role of Hemsterhuis's moral philosophy in Novalis's philosophy of science we first outlined certain biographical details about their intellectual relationship. This brought into relief the extent to which Hemsterhuis's thought had accompanied Novalis since his early philosophical studies and how this influence particularly manifested itself from 1797 onward when Hardenberg returned to a thorough reading of the Dutch philosopher's oeuvre. Novalis's in-depth study produced the

Hemsterhuis-Studien that the same year, a series of notes that the romantic thinker later utilized in 1798-1799 when developing his encyclopedistics project: *Das allgemeine Brouillon*.

We likewise considered it important to detail several crucial concepts in Hemsterhuis's *Lettre sur l'homme et ses rapports*, to essentially try and clarify some of the historical obscurity in the works of the Dutch philosopher, which are recently being rediscovered. Given the increasing but still insufficient attention devoted to Hemsterhuis in the history of philosophy, a number of relevant ideas in Novalis's reception of this thinker were outlined, such as the "moral organ", "total science" or "aphelion / perihelion".

Furthermore, Novalis's reception of Hemsterhuisian moral philosophy and its connection to science were noted, particularly in line with two philosophical problems: on the one hand, the over-specialization and separation of the different scientific disciplines. And on the other hand, the lack of dynamism in scientific practice. These problems were addressed either directly or indirectly in quoted entries from Novalis's *Das allgemeine Brouillon*; these entries formed a link back to his own earlier notes titled *Hemsterhuis-Studien*, and all ultimately were inspired by a reading of Hemsterhuis's *Lettre sur l'homme et ses rapports*.

To tackle the first of these two problems, we saw that Hardenberg considers the Hemsterhuisian notion of a "total science" from which all the other disciplines derive. Through a utilization of the ability to combine and unify knowledge found in the intuitive capacity of the moral organ, scientific phenomena will eventually be entirely connected, thus giving humanity the possibility of approaching divine perfection, i.e., of reintegrating this total science back into its knowledge as an interconnected universe.

To overcome the second of the problems, we noted the manner in which Novalis considers morality as an instrument for the improvement of science. Following Hemsterhuis's astronomical metaphors concerning human progress throughout history, the *Brouillon* presents the cultivation of the moral organ as a remainder of the "geometrical" era. It agrees with Hemsterhuis's hypothesis of the harmonious dynamization of science through the development of the moral organ, which will give humanity the opportunity to make new discoveries and generate further scientific revolutions. This constitutes the basis of both Novalis's and Hemsterhuis's original conception of a *mathesis universalis*, which not only embraces the theoretical aspects of science, but also human action and our sense of duty, virtue, and justice.

This article argued that the Novalian project of encyclopedistics manifests itself as a quest for the development of an all-encompassing system

of knowledge, namely, a *mathesis universalis*, which may be characterized as *moralis* primarily due to the heritage of Hemsterhuis's philosophy. Since it principally dealt with the reception of one thinker by another, it seems appropriate to conclude this article with Hardenberg's own words regarding his appreciation for this philosophical operation in particular. Contrary to the common cliché of a romantic obsession with originality, entry 220 from *Das allgemeine Brouillon* perhaps reveals best of all why Novalis himself studied other philosophers as intensely as he studied Hemsterhuis:

THEORY OF SPIRITUAL EDUCATION. One studies foreign systems in order to find one's *own system*. A foreign system is the stimulus for *one's own*. I become conscious of my own philosophy, physics etc.—by becoming affected by a foreign one—provided of course I myself am sufficiently active.⁶⁹

Bibliography

- Ackermann, Eric, *Worte und Werte. Geld und Sprache bei Gottfried Wilhelm Leibniz, Johann Georg Hamann und Adam Müller* (Tübingen: Max Niemeyer, 1997).
- Balmes, Hans Jürgen, "Kommentar zu *Hemsterhuis-* und *Kant-Studien*", in *Werke, Tagebücher und Briefe Friedrich von Hardenbergs. Band 3: Kommentar von Hans Jürgen Balmes* (München - Wien: Carl Hanser, 1987), 315–31.
- Bomski, Franziska, *Die Mathematik im Denken und Dichten von Novalis. Zum Verhältnis von Literatur und Wissen um 1800* (Berlin: De Gruyter, 2014).
- Cahen-Maurel, Laure, "L'âge d'or futur : Novalis relu à partir de Schiller et de Hemsterhuis", *Klesis* 40 (2018): 1-32.
- , "Vers une 'science totale': l'encyclopédistique vivante de Novalis", *Klesis* 42, 2018, 79–109.
- Cernuschi, Alain, "Des désignants combinés ou vers une dimension opératoire des articles de l'Encyclopédie", *Recherches sur Diderot et sur l'Encyclopédie*, 40–41 (2006): 93–106.
- D'Alembert, Jean le Rond, *Discours préliminaire de l'Encyclopédie* (Paris: Gonthier, 1965).
- Daiber, Jürgen, *Experimentalphysik des Geistes. Novalis und das Romantische Experiment* (Göttingen: Vandenhoeck & Ruprecht, 2001).
- Flickenschild, Ursula, *Novalis' Begegnung mit Fichte und Hemsterhuis*, ed. by Jacob van Sluis, *Hemsterhuisiana*, Vol. 13 (Berltsun, 2010).
- Franz, Michael, *Schellings Tübingen Platon-Studien* (Göttingen: Vandenhoeck &

⁶⁹ Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, 32 (HKA III, 278).

- Ruprecht, 1996).
- Hemsterhuis, François, *Œuvres philosophiques*, ed. by Jacob van Sluis (Leiden: Brill, 2015)
- , *Œuvres philosophiques de M. F. Hemsterhuis* (Paris: L’Imprimerie de H. J. Jansen, 1792).
- , *The Early Writings of François Hemsterhuis (1762-1773)*, ed. by Jacob Van Sluis and Daniel Whistler (Edinburgh: Edinburgh University Press, 2022).
- Holland, Jocelyn, “‘Ein Schuß in die Blaue Luft.’ The Early German Romantic Hypothesis”, *Symphilosophie: International Journal of Philosophical Romanticism* 3 (2021): 71–94.
- , *German Romanticism and Science. The Procreative Poetics of Goethe, Novalis, and Ritter* (New York: Routledge, 2009).
- Loheide, Bernward, *Fichte und Novalis. Transzendentalphilosophisches Denken im romantisierenden Diskurs* (Amsterdam – Atlanta: Rodopi, 2000).
- Maatsch, Jonas, “*Naturgeschichte der Philosopheme*”. *Frühromantische Wissensordnung im Kontext* (Heidelberg: Winter, 2008)
- Mähl, Hans-Joachim, “Das Allgemeine Brouillon: Anmerkungen”, in *Schriften: Die Werke Friedrich von Hardenbergs. Dritter Band. Das philosophische Werk II* (Stuttgart: Kohlhammer, 1983), 898–1001.
- , “Die Frühzeit Hardenbergs und die Auseinandersetzung mit Hemsterhuis und Fichte”, in *Die Idee des goldenen Zeitalters im Werk des Novalis* (Berlin-Boston: Max Niemeyer, 2012), 255–304.
- , “Einleitung von Hans-Joachim Mähl”, in *Schriften. Die Werke Friedrich von Hardenbergs. Dritter Band. Das philosophische Werk II*, ed. by Richard Samuel, Hans-Joachim Mähl, and Gerhard Schulz (Mainz, Stuttgart - Berlin - Köln: Kohlhammer, 1981), 299–345.
- , “Novalis und Plotin”, *Jahrbuch des Freien Deutschen Hochstifts* (1963): 139–250.
- Melica, Claudia, “Longing for Unity: Hemsterhuis and Hegel”, *Hegel Bulletin* 28 (2007): 143–67.
- Moretti, Giampiero, “Le Hemsterhuis-Studien e il loro ruolo nello sviluppo dell’estetica novalisiana. Il ‘superamento’ di Fichte”, in *Novalis. Pensiero, poesia, romanzo* (Brescia: Morcelliana, 2016), 66–81.
- Napoli, Santiago J., and María Inés Silenzi, “Novalis y H. Dreyfus frente a la sobrecarga de información. El fracaso del aspecto epistemológico de la relevancia”, *Eikasia* 95 (2020): 345–68.
- Nassar, Dalia, “Beyond the Subjective Self: Hemsterhuis, Kant, and the Question of the Whole”, in *The Romantic Absolute. Being and Knowing in Early German Romantic Philosophy, 1795- 1804* (Chicago: Chicago University Press, 2013), 39–47.

- Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, edited and translated by David W. Wood (Albany: State University of New York Press, 2007).
- , *Schriften. Die Werke Friedrich von Hardenbergs. Dritter Band. Das philosophische Werk II*, eds. Paul Kluckhohn and Richard Samuel, 3rd ed. (Stuttgart: Kohlhammer, 1983).
- , *Schriften. Die Werke Friedrich von Hardenbergs. Vierter Band. Lebensdokumente*, eds. Richard Samuel, Hans-Joachim Mähl, and Gerhard Schulz (Stuttgart: Kohlhammer, 1998).
- , *Schriften. Die Werke Friedrich von Hardenbergs. Zweiter Band. Das philosophische Werk I*, eds. Richard Samuel, Hans-Joachim Mähl, and Gerhard Schulz (Stuttgart: Kohlhammer, 1981).
- , *Werke, Tagebücher und Briefe Friedrich von Hardenbergs. Dritter Band. Kommentar von Hans Jürgen Balmes*, eds. Hans-Joachim Mähl and Richard Samuel (Passau: Carl Hanser, 1987).
- Schierbaum, Martin et al., *Enzyklopädistik 1550-1650*, ed. Martin Schierbaum (Berlin: Lit, 2009).
- Schulz, Gerhard, *Novalis. Leben und Werk Friedrich von Hardenbergs* (München: C.H. Beck, 2011).
- van Sluis, Jacob, “Introduction”, in *François Hemsterhuis. Œuvres philosophiques. Édition critique* (Leiden: Brill, 2015), 3–83.
- Séguin, Philippe, “Von der Philosophie zur ars combinatoria. Novalis’ Erwartungen an die Mathematik und die Folgen”, in A. Albrecht, G. von Essen, & W. Frick (eds.), *Zahlen, Zeichen und Figuren: Mathematische Inspirationen in Kunst und Literatur* (Berlin: De Gruyter), 248–267.
- Solé, María Jimena, “Recepción, interpretación e influencia de Spinoza en Alemania durante El Siglo XVIII. Historia de la santificación de un filósofo maldito” (Universidad de Buenos Aires, 2010).
- Uerlings, Herbert, *Novalis und die Wissenschaften* (Tübingen: Max Niemeyer, 1997).
- Werle, Dirk, ‘Zum Verhältnis von Skeptizismus und Enzyklopädistik bei Gabriel Naudé und Pierre Bayle’, in *Unsicheres Wissen. Skeptizismus und Wahrscheinlichkeit 1550-1850*, ed. by Carlos Spoerhase, Dirk Werle, and Markus Wild (Berlin: Walter de Gruyter, 2009), 179–200.
- Whistler, Daniel, “Jacobi and Hemsterhuis”, in *Friedrich Jacobi and the Ends of the Enlightenment: Philosophy and Religion at the Crux of Modernity*, ed. by Alexander J. B. Hampton (Cambridge: Cambridge University Press, 2022).