



“Man muss die Dinge sich vor Augen halten ...”: Goethe’s and Adorno’s aesthetic programmes as a critique of Modernity

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Abstract

“Man muss die Dinge sich vor Augen halten ...”: Goethe’s and Adorno’s aesthetic programmes as a critique of Modernity

Early on in his acquaintance with Goethe, Schiller criticised Goethe’s ‘philosophy’ as too subjective: ‘It takes too much from the world of [the] senses, whereas I take from the soul.’ Today, subjectivity is the opposite to the ‘objective’ world experienced via the senses – a view that can be traced back to the early Scotist thinking on subjective versus objective truth.

*In the first part of this article, close textual analysis of Goethe’s *Farbenlehre* (‘On the theory of colour’) and *Wahlverwandtschaften* (‘Elective affinities’), demonstrates how Goethe aligns the cognition of truth with a subjective function of participatory observation; which he sees as truly empirical. These texts from very different genres execute the same aesthetic programme, in which the narrator withdraws to invite the reader to see for him-/herself. In the second part, Goethe’s concept of participatory truth-finding is compared to Adorno’s aesthetic theory – Adorno claims that only the non-identical appears momentarily in artwork. The comparison between Goethe’s ‘Aperçu’ and Adorno’s ‘Apparition’, Goethe’s ‘zarte Empirie’ and Adorno’s incommensurable insight of art, supports the argument that Adorno’s dilemma in grappling with the absolute can be overcome by using Goethe’s relativising stance. This approach interprets*

knowledge as a set of cultural-historical concepts, emphasising the pivotal position and relevance of literary studies.

Opsomming

“Man muss die Dinge sich vor Augen halten ...”: Goethe en Adorno se estetiese programme as ’n kritiek van Moderniteit

Kort na hulle kennismaking het Schiller Goethe se ‘filosofie’ as te ‘subjektief’ afgemaak: ‘Dit neem te veel uit die waarneembare wêreld, terwyl ek uit die siel neem.’ Vandag beskou ons subjektiwiteit as die teenoorgestelde van die ‘objektiewe’ wêreld, wat ons sintuiglik waarneem – ’n beskouing wat teruggevoer kan word na vroeë Skotiese denke oor subjektiewe in teenstelling met objektiewe waarheid.

In die eerste gedeelte van die artikel word ’n gedetailleerde teksontleding van Goethe se ‘Farbenlehre’ asook sy ‘Wahlverwandtschaften’ gebruik om te demonstreer hoe Goethe die kognisie van die waarheid verbind met ’n subjektiewe funksie van deelnemende waarneming wat hy as waarlik empiries beskou. Hierdie tekste uit heeltemal verskillende genres gee uitvoering aan dieselfde estetiese program. In die program onttrek die verteller homself van die vertelling om die leser te nooi om sêlf te kyk. In die tweede gedeelte word Goethe se konsep van deelnemende waarneming vergelyk met Adorno se estetiese teorie – Adorno meen dat die nie-identiese slegs kortstondig in kunswerke verskyn. Die vergelyking tussen Goethe se ‘Aperçu’ en Adorno se ‘Apparition’, Goethe se ‘zarte Empirie’ en Adorno se begrip van die onmeetbare insig deur die kunste, ondersteun die argument dat Adorno se dilemma met betrekking tot dit wat absoluut is deur Goethe se relativiserende standpunt oorbrug kan word. Hierdie benadering interpreteer kennis as ’n stel kultuur-historiese konsepte wat die sleutelposisie en relevansie van literêre studies beklemtoon.

1. Introduction

In 1789, early in his association with Goethe, Schiller wrote:

Ihm ist die ganze Philosophie subjektivisch, und da hört dann Überzeugung und Streit zugleich auf. Seine Philosophie mag ich auch nicht ganz: sie holt zuviel aus der Sinnenwelt, wo ich aus der Seele hole. Überhaupt ist seine Vorstellungsart zu sinnlich und betastet mir zuviel.

For him, all of philosophy is subjectivist, and it is at that point that both conviction and argument end. I also don’t fancy his

philosophy much: it takes too much from the world of the senses, whereas I take from the soul. All in all, his understanding of reality is too sensory and is too tactile for me. (Staiger, 1987:10; translation – SM.)¹

From a 21st century perspective, there seems to be, from Goethe's side, a focus on an object-oriented empiricism and an emphasis on the sensory as a source for perception and creativity. Schiller, as an idealist, scathingly opposes to this the soul. Both Goethe's and Schiller's philosophies include their notions of aesthetic perception as mimesis. Today, the fact that Schiller calls Goethe's approach "subjectivist" seems paradoxical, for we believe nowadays that *objectivity*² is generated through the senses, empirically, whereas creation "from the soul" sounds rather idealistic and is, therefore, perceived to be *subjective*.³

In this article, it is been argued that Goethe's very specific sensory empiricism denotes a dialectical suspension of the dualism between *objectivity* (in the empirical scientific sphere of truth finding) and *subjectivity* (in the complementary aesthetic, but no longer real, sphere). Goethe opposes this divide, which characterises Modernity, by insisting on regarding both spheres as interrelated. In this sense, his programme can be understood as a critique of Modernity. In order to substantiate this argument, I analyse Goethe's idiosyncratic use of the terms *subjective* and *objective* in his most ambitious scientific work, *Zur Farbenlehre* ("On the theory of colour") (1810),⁴ by contextualising his usage of these terms within a history of these terms. Next, I demonstrate that Goethe's novel *Die Wahlverwandtschaften*

1 Attempts to translate *Vorstellungsart* exemplify the core problem of this article: *vorstellen* originally refers to the Latin *objicere*, the verb from which *objectivity* is derived. However, here it also has a *subjective* or conceptualist meaning, similar to the creative imagination. Also, the word *sinnlich* can mean sensory (relating to an empirical mind that experiences the world objectively) as well as sensuous (associated with the subjective fallacy of the senses).

2 For the sake of clarity, where the terms *objective* and *subjective* are used in their current (Modernist and empirical-critical) sense, they are italicised, to distinguish them from the different usage of the terms by Goethe, Schiller and others prior to the mid-nineteenth century.

3 On understandings of truth and objectivity in relation to Goethe's work, see Apel (2004), Hofmann (2003), Neubauer (1997) and Böhme (1988:145-178; 1980).

4 The 1994 collected works (*Werke*) in fourteen volumes were used. The *Farbenlehre* is referenced as Goethe (1994a [1810]) in the text.

(1809),⁵ which was written at much the same time, can be read as a decidedly scientific project,⁶ and indeed expresses the same empirical programme as the *Farbenlehre*.

At the dawn of the Modernist schism between scientific truth and aesthetic beauty, Goethe makes an attempt to initiate an alternative discourse to that of Kant (as will be discussed in the first part of this article). In the postmodern era, where this divide has been broadly criticised and relativised (cf. Snow, 1964; Kuhn, 2004), a phenomenological (Waldenfels, 1997) understanding of interdisciplinarity may enable us to bridge the divide more easily than the critics of Modernity in the twentieth century could. In this context, a comparison of Goethe’s notion of empiricism with the radical critique of reality in the works of Theodor Adorno (1966; 1970), can reveal Goethe’s renewed relevance. This comparison is presented in the second part of the article.

2. Textual analysis demonstrating Goethe’s aesthetic programme

2.1 *Die Farbenlehre* (1810)

What exactly is Goethe’s sensory empiricism? Let us start with the *Farbenlehre*. The history of the reception of Goethe’s *Zur Farbenlehre* can largely be described as a rejection of his theory by the scientific community, particularly by physicists. Only at the start of the previous century (in the context of growing criticism against the scientific revolution), did the *Farbenlehre* attract any approbation

5 All English citations from this work refer to the 1994 translation by David Constantine (Goethe, 1994d [1809]).

6 The term *elective affinities* had a scientific meaning around 1800. In the novel it is used only in the fourth chapter of the first part, in the context of a convivial discussion between the characters on chemistry. Thereafter it is not mentioned again. In most of the plethora of secondary literature, “elective affinities” is regarded as a *Gleichnisrede* – as Eduard wrongly interprets the situation (Goethe, 1994c [1809]:270). This reading is intriguing but misleading, because Goethe himself gave at least two clear pointers that show that this term has a much deeper and more concrete meaning. Firstly, giving a novel a title derived from science implies more than just a *Gleichnis*. Secondly, in his “Selbstanzeige” in the *Morgenblatt für gebildete Stände*, 4 September 1809, he wrote that “fortgesetzte physikalische Arbeiten” (Goethe, 1994c [1809]:639) initiated the use of this title, and not a poetic muse. Wiethölter (1982) and Adler (1987) have demonstrated that the novel can indeed be read as a chemical experiment. In her abstract Wiethölter (1982:1) describes *Elective affinities* as “a poetic presentation of a theory, which understands nature as a text and science as poesis”.

from the scientific community.⁷ The community then began to see the text as a potential alternative (Böhme, 1980), or perhaps as a valuable attempt (albeit unsuccessful in terms of the history of science) to counteract what Adorno (1966:398) would call an *objektiven Verblendungszusammenhang* between science, technology and industry in modern civilisation.⁸

However, the spectrum of such readings remains mainly confined to the matter of the work's scientific standing, thus applying a modern scientific epistemology. There are almost no examples of any literary or other approaches towards the reception of the *Farbenlehre*.⁹ This lack of variety in the approaches to the text should be questioned in terms of whether reality construction is regarded as a cultural practice in relation to a historical context. Accordingly, the receptive modes employed in reading a scientific text or an aesthetic text are related to specific understandings of reality – these modes are made overt in the readings employed in the current article. The *Farbenlehre* – whatever the familiar patterns of reception suggest – deals primarily with perception; in particular, it deals with questions surrounding the conditions and limitations of perception. The text explores the modes of perception of colour in a manner that opposes the treatment of light and colour in Newton's *Opticks* (1704) methodologically, or rather didactically, and polemically.

Goethe's position, vis-à-vis the "correct" scientific methodology to attain an understanding of perception, can be introduced by analysing his idiosyncratic usage of the predicates subjective and objective. Goethe prioritises the "physiological colours", "because they belong completely or mostly to the subject, the eye". We can perceive "phy-

7 This changed perception is mainly attributed to Werner Heisenberg's *Die Goethesche und die Newtonsche Farbenlehre im Lichte der modernen Physik* (cf. Meyer, 1987:681-703).

8 The attraction of the *Farbenlehre* in the twentieth century, almost attaining the status of dogma in the context of *Anthroposophie* (cf. Böhme & Schiemann, 1997; for a similar reception in America, cf. Seamon & Zajonc, 1998), is based on its potential critique of Modernist science. Böhme (1988:7-10) argues that Modernity can be understood as a process that includes the disappearance of nature and the authentic subject. The process is driven by rationalism, which continues to be an obstacle to current attempts to recollect previous concepts of subjective nature.

9 Helbig (2004) analyses the *Farbenlehre* from a philological point of view, but primarily focuses on a scientific critique of the argument and the rhetoric of the text (cf. Mühr, 2007:110-115).

biological colours”, for example, when we press our closed eyelids. The resulting phenomenon of perceiving colours is indeed purely subjective. Goethe (1994a [1810]:329) emphasises that therefore these “physiological colours ... make up the foundation of the whole doctrine”.¹⁰ Secondly, the “physical colours” are conceived of as occupying an intermediate position between the subject and the object. These are colours that do not belong to the objects as such, but appear to the eye. For example, one sees prismatic colours when one looks through colourless objects at an angle. Finally, he defines “chemical colours” as “objective” because they are conceived to “belong to the things”, like the green of leaves or the red of strawberries (Goethe, 1994a [1810]:325). With regard to reflection, he discerns subjective (Goethe, 1994a [1810]:372 ff.) and objective (Goethe, 1994a [1810]:396 ff.) experiments (*Versuche*); he regards experiments as subjective if the phenomenon can only be perceived by the observer (Goethe, 1994a [1810]:372).

To understand this epistemological prioritisation of subjectivities (as is also indicated in the quote from Schiller with which the article starts), a brief history of the ideas around reality is needed.

Realitas, the diminutive of *res* (thing), refers to the difference between “real” things as concrete objects and granting them the status of “truth” (cf. Ritter, 1992:193). This difference builds on the contrast between Plato’s notion of the reality of ideas, and Aristotle’s stance that all reality is what we perceive via our senses.

In the mediaeval theory of universals, which attempted to combine these positions, *ens reale* and *ens rationale* were seen as two sides of the same (real) medal, although in the term *ens reale*, “*reale*” still refers to *res* as an object. The discussion on universals focused on

10 See Goethe (1994a [1810]:329):

Diese [physiologischen] Farben, welche wir billig obenan setzen, weil sie dem Subjekt, weil sie dem Auge teils völlig, teils größtens zugehören, diese Farben welche das Fundament der ganzen Lehre machen ..., wurden bisher als außerwesentlich, zufällig, als Täuschung und Gebrechen betrachtet.

Schöne (1987) explains in detail that the *Farbenlehre* could indeed be read as a theological doctrine and that the visual terms that Goethe uses also lend themselves to such a theological reading. Schöne (1987) also discusses Goethe’s stance on the notion of an immediate revelation of higher truth in the context of Goethe’s early connections to Pietism, suggesting a theological basis for the epistemological question of the famous *Prismenaperçu* which seems to have led Goethe to the conclusion that Newton must have been wrong.

the question of the ontological status of universals, that is, the concepts behind these concrete things.¹¹ This was important in the mediaeval discussion, because God – who is empirically a *deus absconditus* (*hidden God; God unknowable by the human mind*) – as the last and infinite concept of reality has to be ascertained. As Böning (1990:216-217) puts it, the theory necessitated a rationalist metaphysics to declare God to be true; and in that sense (although secularised), Goethe’s “God” is directly perceivable.¹²

For the mediaeval realists, concepts of things had the same reality as the actual objects. Thus, mediaeval Realism referred to a philosophy that today would be regarded as idealism.¹³ Back then, the now current view that such universal concepts were rational abstractions of human experience, or “objectivisations” (Lorenz, 1973: 13), was called Nominalism (cf. Ritter, 1992:148-151, 185-188, 194-198).

Although Duns Scotus is often seen as a mediaeval realist, he took an intermediate position between the realists and the nominalists, because he distinguished between *realitas objectiva* and *realitas subjectiva*. The “subjective reality” of an actual thing was expressed by its “whatness” (*quidditas*) (Ritter, 1992:193). This reality was only “subject to” (*est subiectum*) the physical causality of “being” (Ritter,

11 In that sense, it was always also a problem of language philosophy (cf. Ritter, 1992:149).

12 Böning’s formulation alludes to the famous *glückliche Ereignis* (happy event), as Goethe later referred to his initial meeting with Schiller. This led to a friendship between these two personalities, who were in some senses polar opposites epitomising *subjectivity* and *objectivity* – an event which resulted in what has been termed the *Weimarer Klassik*. After Schiller’s comment on his *Urpflanze*, an idea rather than something gathered from experience, Goethe himself remarked: “Das kann mir sehr lieb sein, dass ich Ideen habe, ohne es zu wissen, und sie sogar mit Augen sehe.” (Staiger, 1987:13.) Another explanation arises from the ancient term *theoria*, which combines an empirical gaze (but without curiosity) with reflective *memoria*. Böhme (1988:151-154) and Böning (1990:218) both argue that Goethe’s *Anschauung* and *Betrachtung* refer to this concept of *theoria*, which precedes the modern divide between science and aesthetics. The background to this discussion has been dealt with comprehensively under the term *Kompensationstheorie* in Mühr (2001).

13 The criticism of (German) idealism in the previous century is discursive. Only in the 21st century has the relevance of that idealism been rediscovered by tracing its roots back to sixteenth-century empiricism, notably in the insightful book *Die Realität der Idealisten* by Feger and Brittnacher (2008).

1992:194 ff.).¹⁴ Besides the “whatness” of something, Scotus also explains its reality ontologically by its *heacceity* (hereness) (cf. Cross, 2010). This indicates a phenomenological position between the (mediaeval) realists and the nominalists. Hence, Ritter (1992: 149) refers to Scotus as a conceptualist.

Scotus’s *realitas objectiva*, in contrast to his *realitas subjectiva*, is something that we can *think* as real. Thus, we would understand this concept as referring to a *subjective* (or constructivist) reality, for example, that the world is round. It requires a subject’s intellect to create such an understanding or perception (Kluge, 1995:806),¹⁵ and we might even translate the concept as imagination. To understand this concept (which stands in opposition to today’s thinking), one should remember that the etymological root of “object” is *obicere* (which in mediaeval philosophy refers to an object of the mind (Kluge, 1995:596)), something we can think. It has no epistemological relation to *res* (thing), nor to reality as existence (*ens*), but rather to Plato’s idealism. That is why, in the theory of universals, it is correct to use terms such as *res realitas* versus *res rationalis*, for example.¹⁶

Scotus also differentiated between *ens reale*, being independent from intellectual imagination, and *ens rationis*. Particularly in the Scotist schools of the sixteenth century, such as that of Trombetta, the *ens reale* was understood as the *essentia subjectiva* in the tradition of mediaeval Realism. The *essentia objectiva*, by contrast, was equated with the *essentia rationalis*. In this context, it is also important to understand that a theodicy was part of the agenda of the debate, as it is only via the *essentia rationalis* that a legitimisation of the reality of God was thinkable. The term *ratio* is derived from *reri*, which means to believe (Böning, 1990:210; Kluge,

14 The Afrikaans word *onderwerp* also reflects this notion that something is passively subject to causality.

15 “Subjekt [...] (< 16. Jh.) Entlehnt aus l. subjectum [...]. Gemeint ist wie bei Entwurf u.ä. das Vorgegebene.” Also see Kluge (1995:596):

Objekt [...] (< 14. Jh.) [...] Die Bedeutung dieses Terminus der mittelalterlichen Philosophie zeigt sich vor allem auch in objektiv, das ‘(vom Subjekt unbeeinflusst) vorgegeben’ bedeutet.

16 In complete contrast, a natural scientist such as Konrad Lorenz (1973:17) argues that *obicere* refers to an object that is physically in our way (or in front of us, obstructing our way), and he has no doubt whatsoever that this object is as real as it can be.

1995:668). It refers to a subjective activity of the mind.¹⁷ Besides its current meaning (reason, rationality, logic), it also contained the meaning of *entelechia* (“origin”), so that the origin (*essentia rationalis*) of a given thing (*ens*) is God (cf. Böning, 1990:215).

In a sense, the shock of the Copernican Revolution, which gave rise to our understanding of object and subject, was due less to the demise of the geocentric worldview than to the disappearing potential of an immediate and “empirical” experience of the godly order of the world. This issue oscillates in various epistemological waves until Kant’s time. Thus in 1788, Kant (1949:258) still writes in the conclusion to his *Kritik der praktischen Vernunft*:

Two things fill the mind with ever new and increasing admiration and awe, the oftener and more steadily they are reflected on: the starry heavens above me and the moral law within me. I do not merely conjecture them and seek them as though obscured in darkness or in the transcendent region beyond my horizon: I see them before me, and I associate them directly with the consciousness of my own existence.¹⁸

The rise of rationality as an epistemological assurance of the existence of reality beyond the fallibility of senses, distorts the mediaeval connection of the immediacy of the godly, and therefore true perception of the world (subjectivity) and its imagination (objectivity). Two examples from the transitional phase (AD 1500-1800) are Physico-theology and Pietism. Pietism is generally accepted as one of the strongest influences on Goethe’s thinking (Schöne, 1987). Pietism’s foundation/premise that we are able to directly, immediately, perceive and experience God’s *haecceiti* (“thisness”) could be regarded as a reaction against the increasing rationalisation of Luthe-

17 On the other hand, Konrad Lorenz (1973:11-33), as a natural scientist, argues that every thought or *subjective* perception of the world has a physiological equivalent in the brain. This would prove its *objective* reality. In line with Kant, and mainly referring to Popper, Lorenz defines objectivation (*Objektivierung*) as the abstraction of the (subjective, individual) experiences onto real/objective things.

18 See Kant (1913 [1788]:161-162):

Zwei Dinge erfüllen das Gemüth mit immer neuer und zunehmender Bewunderung und Ehrfurcht, je öfter und anhaltender sich das Nachdenken damit beschäftigt: der bestirnte Himmel über mir und das moralische Gesetz in mir. Beide darf ich nicht als in Dunkelheit verhüllt, oder im Überschwenglichen, außer meinem Gesichtskreise suchen und bloß vermuthen; ich sehe sie vor mir und verknüpfe sie unmittelbar mit dem Bewusstsein meiner Existenz.

ran church practices. In this sense, then, Pietism reactivated mediaeval realist thinking.¹⁹

Koschorke (1999:28-29) explains how the underlying classical understanding of an immediate, direct equivalence between the object of perception and its representation in the mind changed to a concept of a mere correlation between the nervous impulse and its neural cognition. But if this direct equivalence is given up, the relation between the object and its subjective experience becomes problematic, because the ontological status of the perception no longer guarantees immediate *objectivity*, as we think of it today. This meant, however, that the former objectivity as a direct, sensory immediacy or actuality has been dismissed truth; as Koschorke (1999) puts it, becomes a matter of arbitrariness.

But humans did not stop experiencing a sense of immediacy, and it is in this field of tension that Goethe still claims (scientific) objectivity in terms of immediate, actual perception and without distortion by particular techniques or even words. It is in this context that Goethe claims truth only for those things or phenomena that we behold in front of our eyes.

Goethe’s classification of colours according to the “purity” of their subjectivity, according to how exclusively the subject of perception participates in their appearance, is reminiscent of the empirical or realist understanding of the Scotist school. According to Goethe, the highest evidence, or truth, is achieved when such a subjective experience arises in its purest form – preferably without any disruption or discrimination from outside, from a *quidditas* (“whatness”). This prominence of the subject as the primary creator of reality has been increasingly propounded, via Descartes to Kant, albeit with the inversion of the Scotist assumption already mentioned above. Only in the historical context of this growing prominence of the subject as guarantor or creator of reality was it possible for Kant to postulate the “critical” shift of the subject. This resulted in the excommunication of the *Ding an sich* (thing in itself) from human experience, and simultaneously, in the reconceptualisation of both the subject and the object as products of the imagination (what the subject can imagine the object to be).

19 In this context, drawing on mystic traditions, the German term *Wirklichkeit* enters the discourse. *Wirklichkeit* seems to be a synonym for the *realitas actionis*; in this context *actuality* might be an acceptable translation for this important term.

This led to a completely new understanding of objectivity itself – it is reduced to mathematical logic, the only faculty whose laws (according to Kant), are valid a priori.²⁰ Indeed, it is only in opposition to this new form of objectivity that the term *subjectivity* came to be epistemologically discredited in the modern sense of the *subjective* as being potentially erroneous and unreliable.

If one goes back to before this semantic and epistemological shift in the meaning of the terminology at the end of the eighteenth century, it becomes clear that Goethe was not looking for the same sense of “objectivity” as Newton at all (cf. Böning, 1990). Goethe conceived it as merely a formal episteme that was not relevant to human perception. The more *objective* colour phenomena were, the less “reality” Goethe accorded them. From this perspective, it also becomes clear why Goethe detested *formulae* or any random allocation of letters of the alphabet or numbers to objects: he regarded such randomness as an epistemological inadequacy that revealed the non-relatedness of the symbol or sign to the observing subject. I agree with Böning’s argument that Goethe’s understanding of truth is based on an equivalence between objects and their subjective representations. However, this is not Platonic idealism (Böning, 1990:210; Lorenz, 1973:26-32), but rather an empirical philosophy which Goethe derives from mystic and Pietist understandings of reality as actuality or *Wirklichkeit*.

In short, one might argue that Goethe did in fact complete a shift to “subjectivity” in Kant’s sense. At the same time, however, he maintained an archaic empiricism of objectivity as existential concreteness, which has become unacceptable since Kant’s view of the inaccessibility of the *Ding an sich*, became dominant. It is precisely for this “feeling” and relatedness towards objects that Schiller, a dedicated Kantian, criticised Goethe in the comment cited in the introduction of this article.²¹

20 See Lacey (1996:14):

A priori knowledge is that which has its justification independently of experience ... [whereas] knowledge which can only be justified by at least some appeal of experience ... is called a posteriori or empirical.

21 In Goethe’s recollections of his acquaintance with Schiller, mentioned in Footnote 12, he writes that Schiller, as a well-versed Kantian, argued against his own realism. But he concludes: “... und so besiegelten wir, durch den größten, vielleicht nie ganz zu schlichtenden Wettkampf zwischen Objekt und Subjekt, einen Bund” (Goethe cited in Staiger, 1987:14).

2.2 *Die Wahlverwandtschaften* (1809)

I have shown that the underlying epistemology of the *Farbenlehre* can only be understood by an anamnesis (recollection) of a pre-modern and existential reading of objectivity, that reintroduces aesthetics as an existential experience of immediate evidence²² into the scientific domain of defining truth. Now, I would like to show how, in Goethe’s novel *Die Wahlverwandtschaften*, which is obviously situated in the domain of fiction (therefore aesthetic but not true), he (re)introduces the concepts of objectivity and scientific reality too. This task is been approached by analysing his narrative technique in the novel, in which the same Scotist subjectivity (as a concrete scientific empiricism), is reproduced.

The title of the work itself uses a scientific term from the domain of chemistry.²³ This term is explained in chapter 4 of the first part of the novel. In the discursive setting of a convivial gathering, one evening, the couple Charlotte and Eduard, and the Captain, who is Eduard’s friend, discuss at length something they have read in a book on natural physics. After the chemistry definitions and the complexities of elective affinities have been explained to Charlotte (and the reader), she asks for an example to elucidate the concept. The Captain replies:

One cannot do these things justice in words and one ought not to try. As I said, as soon as I can show you the experiments themselves everything will be clearer and more agreeable. At present you would have to make do with frightful technical terms which would give you no real idea. These entities, which seem lifeless and are yet in themselves always disposed to be active, need to be seen at work. They need an observer who will watch with some engagement of his sympathy how they seek one another, how they attract and seize, destroy, devour, and consume one another and at once emerge from the closest possible union in a renewed and novel and unexpected form: it is then one credits them with eternal life, indeed with sense and understanding, since our own senses seem scarcely adequate

22 On the concept of aesthetics derived from the classical *aisthesis*, see Jauß (1982).

23 See Adler’s (1987) comprehensive work on the chemical understanding of elective affinities and its implications for the novel.

to the task of observing them properly and our reason scarcely competent to grasp them. (Goethe, 1994d [1809]:34.)²⁴

The Captain disapproves of words and repeatedly (“as I said”) refers to “work” or activity (in the original *Tätigkeit ...wirkend vor seinen Augen sehen*).²⁵ This implies some criticism of the then typical Newtonian anti-subjective randomness of the applied symbols or signs, as being detached from the Scotist subjectiveness. Being purely ideas, Scotist “objective reality”, even *Kunstworte* are “frightful” and do not give “a real idea”, which implies that they do not give access to the *Ding an sich*. Words are lifeless and make things dead, or *sistiert*, as Adorno (1970:268)²⁶ would put it.

Instead, “an observer who will watch with some engagement of his sympathy” is required. I regard the words cited above as a poor translation by Constantine of the original “Man muss diese tot scheinenden und doch zur Tätigkeit innerlich immer bereiten Wesen wirkend vor seinen Augen sehen, mit Teilnahme schauen.” (Goethe, 1994c [1809]:275.) This is due to the emphasis on the interactivity of both domains, subject and object, in the process of perception, which is captured in the words “wirkend vor ... Augen sehen”. It seems to be reduced to a merely sensory perspective in Constantine’s translation.

The observation of the experiments *themselves* refers to experimental chemistry kits that were available on the market in the period described in the novel,²⁷ however, such kits never actually appear in

24 See Goethe (1994c [1809]:275-276):

‘Man sollte dergleichen’, versetzte der Hauptmann, ‘nicht mit Worten abtun. Wie schon gesagt: sobald ich Ihnen die Versuche selbst zeigen kann, wird alles anschaulicher und angenehmer werden. Jetzt müsste ich Sie mit schrecklichen Kunstworten hinhalten, die Ihnen doch keine Vorstellung gäben. Man muss diese tot scheinenden und doch zur Tätigkeit innerlich immer bereiten Wesen wirkend vor seinen Augen sehen, mit Teilnahme schauen, wie sie einander suchen, sich anziehen, ergreifen, zerstören, verschlingen, aufzehren und sodann aus der innigsten Verbindung wieder in erneuter, neuer, unerwarteter Gestalt hervortreten: dann traut man ihnen erst ein ewiges Leben, ja wohl gar Sinn und Verstand zu [...]’

25 This is a topos in Goethe’s oeuvre. See the parallel to Faust 1, Vorspiel: “Der Worte sind genug gewechselt / Laßt mich auch endlich Taten sehn!” (Goethe, 1994b:14) or: “im Anfang war das Wort ... war die Tat” (Goethe, 1994b:44).

26 See Figal (1977:81) and Link (1986:113).

27 See the *Anmerkungen* (Goethe, 1994c:704).

the plot. Instead, the discussion swiftly turns to a decision to introduce Otilie to the company of three, which allows the power of elective affinities between these four protagonists themselves to become apparent to the “observer who will watch with some engagement of his sympathy” – the reader of the novel. It is not in chemical, detained objects, where the rational scientist (represented by the Captain) would expect elective affinities to occur, but in the human subjects, because they are subject to the natural laws of elective affinities themselves. Only in such subjects can we observe truth. By means of this narratological technique, Goethe recapitulates in a nutshell what the development of the philosophical domination of the subject means.

Charlotte takes out a letter from the principal of the boarding school where Otilie stayed, and treating it much like one would treat a scientific document or a report on a chemical experiment, she calls upon Eduard to “read [it] to us” (Goethe, 1994d [1809]:35). “So saying she took out a letter and handed it to Eduard.” (Goethe, 1994d [1809]:35.) The chapter ends with these phrases. Chapter 5 is the Principal’s letter. The reader, in the position of “the observer who will watch with some engagement of his sympathy” (Goethe, 1994d [1809]:34) sees how the eternal forces begin to unfold.

“Eternal life” can be understood as a semi-secularised metaphor for nature as Goethe perceives it. If true reality, or the *Ding an sich*, can be grasped neither by the senses nor by reason alone – for Kant this would introduce a new sphere for (religious) belief (see the end of the Kant quote above); whereas for Goethe it circumscribes precisely the sphere of existential, immediate subjective experience of nature that he captures and presents in both the *Farbenlehre* and in the novel, without any contradiction. It very accurately describes Goethe’s scientific and likewise aesthetic understanding of participatory observation, according to which both spheres have to and can interact. The *Farbenlehre* contains a voluminous collection of tables and cards that come with detailed instructions on how to experiment with them. Likewise, in the novel, a similar literary technique of pseudo-objectivism is employed when Goethe has Charlotte call upon the reader to read for him-/herself. In both cases, the strategy of producing evidence is the same. Evidence as a cognitive proof of truth or reality is not presented in words – the proof can only be experienced in the immediate and individual activity of subjective observation.

3. Adorno

Like Goethe, Adorno does not accept the Kantian renunciation of the Scotist objectivity, of the potential to experience the *Ding an sich*. He does not identify outer nature, insofar as the *Ding an sich* stays beyond experience (cf. Link, 1986:80 ff.). For Adorno, the “first nature” (*erste Natur*) apparently does not exist. Nature is the history of the human subjugation of the (Scotist) object and, as such, a terrible sight.²⁸ Instead of finding a connection between the subject and the object, the subject of perception only perceives pseudo-objects, which he subjectively objectifies in order to appropriate, subjugate and occupy them. But in the mental process of this objectification, he destroys the originary (Scotist) objectivity as an existential, immediate experience of the other.

The scientific identification and technological subjugation of the outer world as objects for the use of human subjects, is therefore, according to Adorno, an a priori objectification (*Verdinglichung*) and self-alienation that results in human submission to humans’ second nature as if it were the first nature.

However, according to Adorno’s conception, the alienation of the subject in its neurotic tendency to subjugate objects and itself can only end in *aporiae*: the destruction of objectivity (in the primordial, Scotist sense), presupposes the existence of such an archaic object. Adorno seems unwilling to formulate this, and, therefore, of necessity, it becomes a utopian palimpsest underlying Adorno’s critique of Modernity.

In contrast to this compulsion to identify and objectify everything (all processes of self-appropriation of empirical objects beyond the *Dinge an sich*) Adorno postulates the non-identical in his *Negative Dialektik* (Adorno, 1966). His point of departure for the term *non-identical* – itself a term – is, of course Kant. Kant’s *Ding an sich*, can be neither subjugated nor perceived (recognised), we only recognise a *posteriori* (empirical) objectifications of it.

In order to overcome Kant, Adorno radicalises the notion of the *Ding an sich* into its negative, as he derived it from Fichte. Fichte took the complete epistemological retreat of the self to such an extreme, that the self retreats into itself in order to discern the outer world as

28 In this sense, Adorno (1970:104) judges the song of birds to be a horrible perception.

separate from this very self, thus becoming a product of the re-treating self (subject). This seems to be the primordial dialectic of alienation, which Fichte conceives of as a positive, autopoietic process, whereas Adorno inverts this dialectic, construing it as the negative, destructive force of human rationality.²⁹ Therefore one could call Fichte’s system an I-philosophy or a dialectic of identification, as opposed to Adorno’s non-system, which is a non-identificational philosophy or *Negative Dialektik*. But this only demonstrates how closely Fichte’s and Adorno’s thinking remain related.

In postulating the term *non-identical*, Adorno forged a path or methodology of negative dialectics to undermine the compulsion toward objectivisation. The term is a marker for non-cognition or non-conception, it is the opposite of the *quidditas*; it has no intrinsic content, no predication. As Gmünder (1985:69) puts it, it bears an “inescapably idiosyncratic factor” (translation – SM)³⁰ and it is a mere symbol for the incommensurate. The non-identical is “the own identity of the thing against every act of its identification” (Adorno, 1966:164; translation – SM)³¹ and only refers to the subjective reality of the Scotist’s or Kant’s *Ding an sich*.

3.1 A way to approach the *Ästhetische Theorie*

Adorno’s *Ästhetische Theorie* (1970) can be regarded as an attempt to formulate a theory of aesthetics that traces the implications of the aporetic dilemma of the *Negative Dialektik*. It compensates – without disregarding its aporetic situation and only as mimesis of what will

29 Fichte’s dialectic of a process argues back step by step and arrives at the point where one can state that the I is the Non-I, because the I *also* creates its opposite. Likewise Adorno also reaches this conclusion by inverting this dialectic into the negative: the I does indeed construct (*setzen*) the Non-I; however, because this construction has been exposed as a purely subjective construction, opposing the positivist notion of Fichte’s construct, the existence of both constructive entities are negated to be a positive, acceptable truth. Neither the I (= subject) as entity (because it is actually a Non-I), nor the Non-I as its counterpart (= object) (which is only the act of subjugation by a Non-I), fits into a single system that can come to terms with the relation between a human observer and the outer world.

30 “Dem Nichtidentischen wohnt also ein unentrinnbar idiosynkratisches Moment inne ...” (Gmünder, 1985:69).

31 “Das Nicht-Identische [ist] die eigene Identität der Sache gegen ihre Identifikationen.” (Adorno, 1966:164.)

forever remain the *Verdinglichte* – that which has been destroyed, that which utilitarian rationality has done to the *Ding an sich*:

Unverhüllt ist das Wahre der diskursiven Erkenntnis, aber dafür hat sie es nicht; die Erkenntnis welche Kunst ist, hat es, aber als ein ihr Inkommensurables. (Adorno, 1970:191.)

Truth in discursive knowledge [science] is unconcealed to [science], but [science] does not have [truth]; knowledge, which is art, has [truth], but as something incommensurate to [art]. (Translation – SM.)

This quote again demonstrates the notion of the retreat of the self – now in the domain of aesthetics; again we are confronted with the insight that we can never have complete insight, or at least no useful insight. But in this case, an opportunity to *live* with this problem seems to arise, because the sentence allows a positive statement about our states of knowledge, thus adopting an existential stance towards being or *Dasein*.³² In this sense, the relation between “discursive knowledge” (science) and aesthetic knowledge (“which is art”) appears to allow them to compensate for each other. However, if one remembers the context of the *Negative Dialektik*, in fact, these two domains cancel each other out. Nothing is gained from either domain; they cannot be interrelated and exclude each other. *Ergo*, the form of knowledge that art has also remains empty because it is inconceivable, and *only from this* does art derive a role or function, namely that of being an *apparition* of the destruction of the relation between human beings and perceptions of nature:

Das Kunstwerk, durch und durch φεσει, ein Menschliches, vertritt, was φυσει, kein bloßes fürs Subjekt, was, kantisch gesprochen, Ding an sich wäre. (Adorno, 1970:99.)

A piece of art, technai through and through, [...] substitutes what is physei, not merely for the subject, which, in Kantian terms, would be the ‘Ding an sich’. (Translation – SM.)

Adorno (1970:183) conceives of art as a non-rational or non-cognitive mode of knowledge of nature, in other words, as “a placeholder for the things no longer deformed through the exchange”

32 A reminder that in the Scotist school only subjective reality was accorded ontological status as *Seinsweise*.

(Adorno, 1970:337; translation – SM).³³ Works of art are, of course, always objectivised in an *a priori* fashion, and hence this can have the function of demonstrating this notion. In being detained in this particular fashion;³⁴ they can “de-monster” the destructive relationship between the subject and object; they express “a trace of the non-identical on the things” (Adorno, 1970:114; translation – SM).³⁵

Adorno regards the appearance of this trace, for which he uses the term *apparition* (Adorno, 1970:125), as an immediate experience by the observer, a sudden “constellation of being” (Adorno, 1970:204; translation – SM),³⁶ which reminds one of the Scotists’ subjective reality. But it also reminds one of Goethe’s notion of immediacy and his notion of participatory perception. Earlier in his *Ästhetische Theorie*, Adorno (1970:14) calls it “a being of a second potentiality” (translation – SM).³⁷ This accurately describes the phenomenological objectivity of subjective beauty much as Goethe did, admittedly in a radically critical manner that always also bears in mind the negativity of all that can be experienced or perceived. But ultimately, Adorno can only overcome the dilemma of the subjective mediation of immediacy if he accords at least a modicum of objectivity to any subjective experience.

One might argue that with the concept of the apparition of the non-identical in art, Adorno achieves a modally and dialectically relativised synthesis of the *Ding an sich* (in Scotist terms, objectivity) and a subjective experience of it. In Kantian terms, for Adorno, the experience of autonomous nature (the *Ding an sich*) in its radical Scotist immediate objectivity is only possible, because it is a representation (cf. Figal, 1977:140). This is equivalent to Kant’s condition of aesthetic distance (a non-interest in the definition of beauty), or secure stance (in the context of the aesthetics of the natural sublime, in which, for the very first time, the transition from natural

33 “Kunstwerke sind die Statthalter der nicht länger vom Tausch verunstalteten Dinge.” (Adorno, 1970:337.)

34 Adorno (1970:111, 268) uses the term *sistieren*.

35 “Das Naturschöne ist die Spur des Nichtidentischen an den Dingen im Bann universaler Identifikation.” (Adorno, 1970:114; Gmünder, 1985:74-81.)

36 “Das Nichtseiende in den Kunstwerken ist eine Konstellation von Seiendem.” (Adorno, 1970:204.)

37 “Nur vermöge der Trennung von der empirischen Realität ... wird das Kunstwerk zum Sein zweiter Potenz.” (Adorno, 1970:14.)

observation to aesthetic perception is made). In this double reflection, a work of art admittedly always remains mediated (*vermittelt*) (i.e. not im-mediate), thus heteronymous, but it contains a hint of autonomy: freedom “appears” in art.

This difference between the “representative” and the “objective” in their literal meaning is evidenced by a difference in the *modality* of his statement about reality: the claim of objectivity only constructs an object that can be contrasted to something relative to a subject (the object is subject, *gerundive*, to a subject); whereas the term *representative* refers to a *metalevel* of an object, a conscious differentiation between the object *an sich* (which is not accessible to our empiricism), and its concrete apparition as a trace that represents something before it was destroyed by our rational observation.

This metalevel of a modally and dialectically relativised potential of aesthetic perception allows for a reciprocal aestheticising perception: everybody sees something only “as something”. (The transitive use of the verb *to see* or *to perceive* that was particularly fashionable in the Romantic period is herewith discarded.) This absolute, logical precondition for this point of view is that, aside from any immediate sensory perception (input) that gives us the certainty of being (existing), there must be at least one additional metalevel of perception that constructs cognitive apperception as a taking in “Wahr-nehmung” (*taking for the truth*) what cannot be the truth as such. Accepting this condition means accepting that we cannot know the truth, but that we aesthetically take something as the truth as we carry on living.

It is only in this modal-dialectical relativity that Adorno can overcome the radically critical programme that he posits in the *Negative Dialektik*; it is only here that he lends himself to what Goethe called *zarte Empirie* (Goethe, 1994e:435; also cf. Höpfner, 1990:213), which is only an aesthetic mode of primordial objectivity.

4. Conclusion

The terminological spectrum of Adorno’s term *apparition* ranges from the use of “trace”, which could lead one to Derrida (2004), to the term *representation* (not, as Foucault (1991) put it, as a one-to-one representation, but rather as a clear modal difference between the object and its representation), and finally to the term *placeholder* (*Statthalter*). This terminological spectrum achieves the same function as Goethe’s maxim of direct immediate “keeping in sight” (*Vor-
augenhalten*): instead of objectivising and thereby detaining beauty,

the recipient (observer) is called to experience him-/herself, subjectively, in order to experience the non-identical or incommensurate of any true experience.

I cannot prove that Adorno’s ideas are directly derived from Goethe’s, or that Adorno adopted the concept of *apparition* from Goethe. However, Böhme (1988:30-33) indicates how Adorno’s reception of nature, as well as his whole critique of rationalism in the context of the Frankfurter Schule (Böhme, 1988:215-273), builds on the same critique of modernity of which Goethe’s work had been a precursor. Böhme argues that through Goethe’s connection with Schiller, Goethe was virtually forced to develop a counter-discourse to Kant’s position (Böhme, 1988:146). In this regard, Böhme analyses premodern concepts, particularly during the high epistemological dynamics of the sixteenth century, when notions of a cohesive cosmos were still prevalent (Böhme, 1988:13). In the context of Paracelsus’ concept of nature, Böhme (1988:193) shows that the underlying question of reality leads back to ideas from the mediaeval theory on universals, some of which survived until Adorno’s writing. Both Goethe’s early modern and Adorno’s late modern conceptions de facto formulate a critique of modernity. Both conceptions are intended to rescue the actual (*wirkliche*) truth of the *Ding an sich*, in its beauty, from the objectivisations of modernity’s utilitarian rationality. Both determine this function as the very essence of their aesthetics. Both attempt to find a way to open up a human connection to the world by accepting an aesthetic relativisation of the epistemological range of the validity of “experience”.

Insofar as Adorno’s conceptual model attempts to criticise rationality absolutely, it remains aporetic, because it must lead to the dilemma of rationally expressing what *cannot* be expressed. His position stands in radical contrast to the scientific trends of his own time (cf. Lorenz, 1973).

But the context of the principal differences between Aristotle’s and Plato’s views on this matter – as combined by the theory of universals, then separated in modern science versus the humanities or arts – received new attention since the middle of the previous century in the context of a cultural-historical approach, which is able to understand (natural) sciences as a culturally, i.e. socio-historically, relative knowledge system. However, after the “critical” period of the second half of the twentieth century, it seems to have become easier to develop interdisciplinary approaches to access concepts of reality, particularly in the field of the humanities, by remembering (anamnesis) premodern concepts. In a nutshell, it seems easier to-

day to overcome Adorno's dilemma with the help of Goethe, because such concepts are what the *Farbenlehre* and the *Wahlverwandtschaften* are really about. Rike Wankmüller (1994:616) writes in her "Nachwort" to Goethe's *Farbenlehre*:

Die Überwindung des Zwiespalts zwischen naturwissenschaftlicher und poetischer Betrachtungsweise war Goethes eigentliche Leistung.

Overcoming the split between the ways of seeing of the natural sciences and poetry was actually Goethe's biggest achievement. (Translation – SM.)

The approach of this article allowed for understanding science (or knowledge systems) as a set of beliefs and practices of truth-granting. As Kuhn (2004) has already shown, such practices have dynamic structures in time, and in fact have many parallels with religious systems. Modern phenomenology may, therefore, cross the chasm between scientific epistemology (positivism) and hermeneutic idealism. In this context, a study of Goethe's understanding of truth can therefore be seen as a role model for further interdisciplinary analyses of literature and scientific texts alike.

List of references

- ADLER, J. 1987. Eine fast magische Anziehungskraft: Goethe's *Wahlverwandtschaften* und die Chemie seiner Zeit. München: Beck.
- ADORNO, T.W. 1966. Negative Dialektik. Frankfurt am Main: Suhrkamp. (Gesammelte Schriften, TI. 6.)
- ADORNO, T.W. 1970. Ästhetische Theorie. Frankfurt am Main: Suhrkamp. (Gesammelte Schriften, TI. 7.)
- APEL, F. 2004. Aufmerksamkeit ist Leben: Goethes Italienische Reise als Sehprojekt. (In Drews, J., Kyora, S., Dunker, A. & Sangmeister, D., Hrsg. Literatur ohne Kompromisse. Bielefeld: Aisthesis. S. 141-149.)
- BÖHME, G. 1980. Alternativen der Wissenschaft. Frankfurt am Main: Suhrkamp.
- BÖHME, G. & SCHIEMANN, G. 1997. Phänomenologie der Natur. Frankfurt am Main: Suhrkamp.
- BÖHME, H. 1988. Natur und Subjekt. Frankfurt am Main: Suhrkamp.
- BÖNING, T. 1990. Zu Goethes Wahrheitsbegriff. (In Buhr, G., Kittler, F.A. & Turk, H., Hrsg. Das Subjekt der Dichtung: Festschrift für Gerhard Kaiser. Würzburg: Königshausen & Neumann. S. 209-222.)
- CROSS, R. 2010. Mediaeval theories of Heaccuity. (In Stanford Encyclopaedia of Philosophy.) <http://0-plato.stanford.edu/innopac.up.ac.za/entries/-mediaeval-haecceity/> Date of access: 23 May 2012.
- DERRIDA, J. 2004. Die Différance. Übersetzt durch Werner Rappl. (In Engelmann, P., Hrsg. Jaques Derrida: die Différance: ausgewählte Texte. Stuttgart: Reclam. S. 110-149.)

- FEGER, H. & BRITTNACHER, H.R. 2008. Die Realität der Idealisten: Friedrich Schiller – Wilhelm von Humboldt – Alexander von Humboldt. Köln: Böhlau.
- FIGAL, G. 1977. Theoder W. Adorno: das Naturschöne als spekulative Gedankenfigur: zur Interpretation der “Ästhetischen Theorie” im Kontext philosophischer Ästhetik. Bonn: Bouvier.
- FOUCAULT, M. 1991. Die Ordnung der Dinge: eine Archäologie der Humanwissenschaften. Übersetzt von Ulrich Köppen. Frankfurt/Main: Suhrkamp.
- GMÜNDER, U. 1985. Kritische Theorie: Horkheimer, Adorno, Marcuse, Habermas. Stuttgart: Metzler.
- GOETHE, J.W. 1994a [1810]. Werke. München: Beck. (Hamburger Ausgabe, Tl. 13.)
- GOETHE, J.W. 1994b. Werke. München: Beck. (Hamburger Ausgabe, Tl. 3.)
- GOETHE, J.W. 1994c [1809]. Werke. München: Beck. (Hamburger Ausgabe, Tl. 6.)
- GOETHE, J.W. 1994d [1809]. Elective affinities. Trans. by D. Constantine. Oxford: Oxford University Press.
- GOETHE, J.W. 1994e [1809]. Werke. München: Beck. (Hamburger Ausgabe, Tl. 12.)
- HELBIG, H. 2004. Naturgemäße Ordnung: Darstellung und Methode in Goethes Lehre von den Farben. Köln: Böhlau.
- HOFMANN, P. 2003. Erkenne jedes Dings Gestalt: Goethes Zeichnen als angewandte Erkenntnistheorie. *Deutsche Vierteljahrsschrift für Literaturwissenschaft und Geistesgeschichte*, 77:242-273.
- HÖPFNER, F. 1990. Wissenschaft wider die Zeit: Goethes Farbenlehre aus rezeptions geschichtlicher Sicht. Heidelberg: Winter.
- JAUß, H.R. 1982. Ästhetische Erfahrung und literarische Hermeneutik. Frankfurt am Main: Suhrkamp.
- KANT, I. 1913 [1788]. Kritik der praktischen Vernunft: Königliche Preußische Akademie der Wissenschaften. Berlin: Reimer. (Kants gesammelte Schriften. Tl. 5.)
- KANT, I. 1949. Critique of practical reason and other writings in moral philosophy. Trans. by L.W. Beck. Chicago: University of Chicago Press.
- KLUGE, F. 1995. Etymologisches Wörterbuch der deutschen Sprache. Berlin: De Gruyter.
- KOSCHORKE, A. 1999. Wissenschaften des Arbiträren: die Revolutionierung der Sinnesphysiologie und die Entstehung der modernen Hermeneutik um 1800. (In Vogl, J., Hrsg. Poetologien des Wissens um 1800. Würzburg: Fink. S. 19-52.)
- KUHN, T.S. 2004. The structure of scientific revolutions. Chicago: University of Chicago Press.
- LACEY, A.R. 1996. A dictionary of Philosophy. 2nd ed. London: Routledge.
- LINK, T. 1986. Zum Begriff der Natur in der Gesellschaftstheorie Theodor W. Adornos. Köln: Böhlau.
- LORENZ, K. 1973. Die Rückseite des Spiegels. München: Deutscher Taschenbuch Verlag.
- MEYER, H. 1987. Goethe im zwanzigsten Jahrhundert. Frankfurt am Main: Insel.
- MÜHR, S. 2001. Naturwahrnehmung – Fremderfahrung: Entwurf zum Textverständnis europäischer Natur als Fremderfahrung aus der Transformationsgeschichte ihrer Denkfiguren. Frankfurt am Main: Peter Lang.

- MÜHR, S. 2007. Die Wirklichkeit der Wahrnehmung: Kritik des Perzeptionspektrums zu Goethes "Farbenlehre". *Jahrbuch Deutsch als Fremdsprache*, 33:95-115.
- NEUBAUER, J. 1997. Der Schatten als Vermittler von Objekt und Subjekt: zur Subjektbezogenheit von Goethes Naturwissenschaften. (In Böhme, G. & Schiemann, G., Hrsg. *Phänomenologie der Natur*. Frankfurt am Main: Suhrkamp. S. 64-84.)
- RITTER, J. 1992. *Historisches Wörterbuch der Philosophie*. Tl. 8. Basel: Schwabe.
- SCHÖNE, A. 1987. *Goethes Farbentheologie*. München: Beck.
- SEAMON, D. & ZAJONC, A. 1998. *Goethe's way of science: a phenomenology of nature*. New York: State University of New York Press.
- SNOW, C.P. 1963. *The two cultures: and a second look – an expanded version of the two cultures and the scientific revolution*. New York: New American Library.
- STAIGER, E. 1987. *Der Briefwechsel zwischen Schiller und Goethe*. Frankfurt am Main: Insel.
- WALDENFELS, B. 1997. *Topographie des Fremden: studien zur Phänomenologie des Fremden*, 1. Frankfurt am Main: Suhrkamp.
- WANKMÜLLER, R. 1994. Nachwort zur Farbenlehre. (In Goethe, J.W. *Werke*. München: Beck. S. 613-640.) (Hamburger Ausgabe, Tl. 13.)
- WIETHÖLTER, W. 1982. Legenden: zur Mythologie von Goethes Wahlverwandtschaften. *Deutsche Vierteljahrsschrift für Literaturwissenschaft und Geistesgeschichte*, 56:1-64.

Key concepts:

actuality
 Adorno
 elective affinities
Farbenlehre
 Goethe
 on the theory of colour
 subjectivity/objectivity
Wahlverwandtschaften

Kernbegriffe:

Adorno
 aktualiteit
Farbenlehre
 Goethe
 kleurtheorie
 natuurlike verwantskap
 subjektiwiteit/objektiwiteit
Wahlverwandtschaften