

Chapter 3

Knowledge, Power and the Self: Preliminary Explorations

3.1 Introduction

In the previous chapter I introduced the conceptual framework. *Knowledge*, *power* and the *Self* represent three axes or dimensions of the scientific landscape, while Lacan's four discourses represent strategies for navigating this three-dimensional discursive space. Whereas university discourse centres on expert *knowledge* (S_2), the discourse of the Master builds on an authoritarian *power* dimension (S_1), while the discourse of the hysteric places the divided *Self* ($\$$) in a frontal position, but all strategies are eventually forced to face the other two dimensions as well. The discourse of the Master, for instance, is subverted by the power inherent in expert knowledge and challenged by the subjectivity of the rebellious, insubordinate Self, represented by the discourse of the hysteric. The fourth discourse (the discourse of the analyst) opts for an oblique perspective, probing and analysing the other three discourses and their vicissitudes with evenly poised attention.

These three dimensions, and the four discursive strategies for navigating them, determine the structure of science novels as well. Whereas subsequent chapters (from Chap. 5 to Chap. 11) will focus on scientific integrity and misconduct in the more narrow (FFP) sense of the term, the next two chapters address scientific integrity and misconduct in a broader sense, mapping the broader landscape as it were, connecting it with the societal role and responsibility of science. And whereas subsequent chapters will increasingly approach the scientific present, this chapter provides a historical or genealogical backdrop by focussing on four literary case histories from the past.

Thus, this chapter will set the stage and calibrate the methodology for the upcoming chapters. The discursive landscape will be explored from an oblique perspective with the help of four literary documents, two novels and two plays. My first case study is Shakespeare's *Hamlet*, written circa 1600. This may come as a surprise, because *Hamlet* is not generally regarded as a science drama. What tends to be overlooked, however, in the vast amount of scholarly literature devoted to this play, is that

it is actually a play *about science*, first and foremost about astronomy (cf. Olson and Olson 1998). More precisely, the play stages a collision between scholarship and politics, as well as between the discourse of the Master and university discourse.

This schema will be further elucidated with the help of a second literary case study namely *Carmen*, published in 1845, a novel about an archaeologist who travels to Andalusia, but deflects from his research because of an encounter with a different kind of object *a* (namely the gaze and voice of a living being, instead of an archaeological find: $a \rightarrow a$), so that his scholarly research becomes transformed into an “archaeology of the present” (i.e. psychoanalytical discourse).

The final two literary documents to be discussed in this chapter date from the late nineteenth century and are written by two contemporaries, namely Henrik Ibsen (1828–1906) and Jules Verne (1828–1905). Henrik Ibsen is generally regarded as one of the greatest psychologists of world literature and as a precursor of psychoanalysis. His oeuvre represents a literary psychoanalytical clinic *avant la lettre*. Indeed, as Lacan phrases it, Freud’s oeuvre, focussing on human desire and gender relationships, emerges in “le contexte ibsénien de la fin du XIXe siècle” (Lacan 1986, p. 18). But Ibsen’s plays also analyse how science and technology transform the world of fin-de-siècle culture. In other words, whereas most Ibsen scholars use his dramas to study issues in the realm of psychology and gender, I see his prose plays as literary laboratories, so that *Ghosts* explores end-of-life decisions and genetics (Zwart 1993), while *The Wild Duck* studies the emergence of photography and animal research (Zwart 2000b) and *The Lady from the Sea* reflects the impact of cruise steamers on art and tourism (Zwart 2015c). *Enemy of the People* (1882/1978), the play that will be discussed in this chapter, raises the question how researchers may safeguard their integrity while navigating a complicated societal landscape. The title already refers to the question whether scientists are benefactors or enemies of the people, or both.

To explain Verne’s role in this book, some misunderstandings regarding his work must be addressed. First of all, although Jules Verne is often regarded as the “father of science fiction”, most of his novels (rather than anticipating the future) actually address scientific and technological developments of his own era, so that his novels contribute to a diagnostics of the present. And indeed, in his immense oeuvre (encompassing ninety novels) a panoramic encyclopaedia of research fields and research technologies is fleshed out (Zwart 2008a, p. 233 ff.). Moreover, Verne sees technologies not only as products of science (which are subsequently transferred into the societal realm), but first and foremost as *enablers* of research. Nemo’s submarine and the capsule that is designed to travel to the moon, to mention just two examples, are basically mobile laboratories, which allow researchers to conduct their experiments while moving towards the things themselves (*Zu den Sachen selbst*), allowing them to attain unprecedented proximity. In other words, what Verne reveals in his novels is the technicity of science, emphasising the crucial role of instruments and machinery. He describes how new research practices are opened up by new contrivances. Indeed, most of the machinery described in his novels is used for scientific exploration and experimentation. Also, Verne is often mistaken for an unequivocal advocate of science whereas in fact his attitude towards science

was highly ambivalent. In his novels, he consistently points out that there is a sinister side to the transformative and enlightening role of scientific research. Indeed, one could argue that Verne's oeuvre as a whole reflects Lacan's quadruped scheme of university discourse:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

The upper level of this schema basically describes the situation of normal science, as we have seen. It captures the way in which new technologies and contrivances enable scientific experts (S_2) to study and interact with objects of research which, until then, had eluded them, as forbidding, unapproachable entities out of reach (a). But precisely this new and hazardous situation reveals that, first of all, a latent imperative (a will to power: S_1) has always been guiding the (allegedly pure and innocent) research. Moreover, the close encounter with the target of the scientific *cupido sciendi* (a) may unleash a destabilising crisis ($\$$). Due to an unexpected parallax (an unexpected displacement in the apparent position of the object) the project (the journey to the moon, to the South Pole, around the earth, etc.) suddenly seems to falter. Now that the object is closer than ever, researchers continue to miss it. But rather than analysing his oeuvre as such, I will focus on one particular story, namely the story of Doctor Ox (Verne 1872/1875), focussing on the relationship between knowledge and power.

3.2 Rereading *Hamlet*

The first scene of Shakespeare's *Hamlet* is set on a platform before the castle, which actually serves as an observatory, a window into the stellar world. Hamlet, Prince of Denmark,¹ arrives at this platform exactly at the right moment, "carefully upon the hour" (Act I, scene 1, line 6) to observe the new star, the "thing" that had appeared (Act I, scene 1, line 20), a star that makes its course "westward from the pole": the *Stella nova* of 1572, which had already been spotted the night before. According to Renaissance logic, this stellar apparition confirms that the sublunary world must likewise be out of joint (for the new star is considered a bad omen, boding "some strange eruption to our state": Act I, scene 1, line 69). And indeed, it corresponds with similar disconcerting occurrences in the realm of politics, especially the royal wedding, vehemently loathed by Hamlet. Not coincidentally, the king's name happens to be Claudius, a reference to Claudius Ptolemy no doubt, the ancient

¹Hamlet was a fictional contemporary and compatriot of the famous Renaissance astronomer Tycho Brahe (1546–1601), of noble descent himself, who served as astronomer for the Danish King as the last of the major naked eye astronomers, working without telescopes for his observations, and lost his nose in a duel, so that he wore a prosthetic brass nose. He died from kidney failure after attending a court banquet in Prague.

authoritative astronomer whose geocentric system is about to be subverted by early-modern research (the Copernican revolution). In addition, Ptolemy is often listed as a scientific imposter who appropriated his insights much like King Claudius appropriated his throne. Indeed, “Claudius Ptolemy did most of his work not at night on the coast of Egypt but during the day, in the great library at Alexandria, where he appropriated the work of a Greek astronomer [Hipparchus of Rhodes] and proceeded to call it his own” (Broad and Wade 1982 p. 22). So there is some similarity between the crime of Claudius (in Shakespeare’s drama) and *The Crime of Claudius Ptolemy* (Newton 1977).

In short, the beginning of *Hamlet* is structured in accordance with the dynamics of university discourse:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

A trained scholar (S_2) is fascinated by an intriguing object which unexpectedly came into view (a). The Prince is a Renaissance scholar, education at Wittenberg, who keeps a notebook, his “tables”, for recording scholarly observations, for instance about astronomical phenomena. But alas, whilst Hamlet aspires to pursue his scholarly activities, a commanding voice from beneath, namely his father’s ghost (S_1), draws the Prince back into the dreary world of palace politics: a regression. His father’s eerie voice is a disturbance (scientifically speaking) which diverts him from his budding scientific career. The dead voice from beneath wants to draw Hamlet back into the Master’s discourse, with the commanding monarch in the role of the agent (S_1 now in the upper-left position) and Hamlet as the recipient of the message (S_2 now in the upper-right position). In the unfortunate case of Hamlet, university discourse becomes impaired by this collision with the intruding discourse of the Master, so that Hamlet becomes a divided subject ($\$$ in the lower-right position), tormented by frustration and discontent. It turns him into a rather uncongenial fellow who, bored by courtly protocol, badgers his lover, bullies his mother and exasperates his uncle to such an extent that he is put under observation like a mental patient.

Astronomy (one of his scholarly pursuits) continues to play a role in the play however, for instance during the graveyard scene when Hamlet ridicules Laertius’s grief by commenting that it seems to “conjure the wandering stars, and makes them stand” (Act V, Scene 1, line 278), an event which is only conceivable in a pre-Copernican system, the world as envisioned by uneducated, uninitiated minds. Or when Hamlet explains that the earth for him has become a “sterile promontory” from which the firmament appears as “a congregation of vapours” (i.e. the modern worldview), rather than as a “majestical roof fretted with golden fire” (the ancient and medieval view: Act II, Scene 2).

But even in the realm of palace politics (which he experiences as a “prison”), Hamlet (the scholar) opts for a scientific approach. In order to ascertain whether Claudius really deserves to be deposed, he designs an experiment, a *mouse-trap*

(Act III, scene 2): the famous play-within-a-play, performed by actors who are carefully instructed by Hamlet. This play is a stimulus designed to elicit a response, and Hamlet asks his friend Horatio to closely observe his uncle Claudius in order to see whether, exposed to this mousetrap, which confronts him with a repetition of his disavowed deed, he will give away his “occulted guilt”. Indeed: “The play’s the thing/Wherein I’ll catch the conscience of the king” (Act II, scene 2, line 642).

Thus, as a science drama, *Hamlet* can be elucidated with the help of Lacan’s formalisation of university discourse:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

Initially, Hamlet is a scholar, educated at the university (S_2 in the upper-left position) who uses the platform to observe and probe a remarkable, inexplicable phenomenon: the sudden appearance of an unidentified star (a in the upper-right position). Yet, his pursuits are interrupted precociously by a voice, a questionable summons from the past (S_1 in the lower-left position), drawing him back into clan politics as it were, into the gloomy, depressing cave of palace intrigue (where he is expected to take up his servile and boring position as successor to the throne). Hamlet becomes a divided subject, forced to divide his loyalty between practices of politics on the one hand and practices of knowledge on the other, giving rise to a series of disturbances which increasingly result in recalcitrance, cynicism and discontent, in symptoms of madness even, so that he is placed under surveillance and the palace becomes his psychiatric ward ($\$$ in the lower-right position).

Hamlet is a tragedy precisely because the emancipation of knowledge (of university discourse) falters. Instead of pursuing a career as a scholar, Hamlet becomes the recipient of a message (S_2 pushed into the upper-right position), coming from an authoritative voice (S_1 usurping the upper-left position), a situation which concurs with the discourse of the Master. Like Prospero in *The Tempest*, Hamlet is split between his scholarly calling on the one hand and the demands of palace politics on the other. The resurgence of the voice of the Master, one could argue, is an instance of regression, occurring at a time when the scientific revolution was about to set off, a truth event in which Hamlet had hoped to be involved. In a positive scenario, university discourse would have succeeded in subverting the discourse of the Master, and a different situation would have arisen, because Hamlet would have remained faithful to his truth event (Badiou 1988).

In university discourse, the Master no longer addresses the Servant explicitly. Rather, it is the servant who addresses nature, via research, revolving around an object of choice, such as a stellar phenomenon (Hamlet’s *Stella nova*), the researcher’s *object a*, which is put to the test, but at the same time puts the subject to the test, for the *object a* is not simply a graspable, tangible object. Rather, its ontological status is highly uncertain. It may well prove a lure, an anomaly, a dead end, a trap. Rather than studying nature as a cosmic whole, nature becomes condensed and compressed into a particularly intriguing but inexorable object (a), an entity which

can only be brought to the fore and analysed with the help of specialised equipment. And this may explain Hamlet's failure, his impotence; his failure to act. In Hamlet's case, astronomy is still conducted with the naked eye, although one could see the platform as a kind of contraption, a Renaissance Stonehenge so to speak. A "phallic", telescopic instrument (ϕ) would perhaps have allowed him to emancipate himself from traditional *Gerede* and palace intrigue, focussed on the intricacies of match-making, but this instrument is missing ($-\phi$). Hamlet remains a scholar, who reads, talks and writes, but practices with a sword rather than a telescope. Indeed, optical instruments are decidedly absent in his scholarly practice. Science becomes *real science* to the extent that technicity dominates the subject-object relationship, so that the *object a* is not only observed and analysed, but also (to a considerable extent) *produced* by research contraptions. But I will resume my analysis in Chap. 11 to indicate that Hamlet (as an experimental drama) continues to be relevant for understanding research practices up to today.

3.3 *Carmen* as a Research Novel

The narrator of *Carmen* (the novel) is a French scholar who travels to rural Andalusia to conduct archaeological research for an academic thesis on the battle of Munda (45 B.C.), Caesar's final victory over his republican opponents. After quenching his thirst with water from a pond in a deserted area (lying flat on his belly, drinking the water directly with his mouth, "like the bad soldiers of Gideon", p. 94), he runs into a dangerous brigand named Don José, whom he befriends by sharing a cigar with him, notwithstanding doubts concerning the "morality" of his action (p. 105). In Cordoba he pays a visit to a Dominican library and meets Carmen, an enigmatic Romani woman who is fascinated by his watch and offers to tell his fortune. He follows her to her home, where he meets Don José again. Carmen makes coat-cutting gestures, but Don José escorts him out, so that his life is saved, although he later discovers that his watch is missing. When he is informed that Don José has been arrested and is about to be executed, he decides to visit him in prison, where he tells him the story of his life.

Don José is a Basque whose real name is José Lizarrabengoa and who met Carmen while serving as a soldier in Seville (where the opera version of the tale begins). He arrested her after a quarrel in the Royal cigar factory with another female employee, but she flirts with him and addresses him in Basque so that, instead of taking her to prison, he allows her to escape, whereupon he is imprisoned himself and demoted for misconduct. After his release, he encounters her again and she tries to seduce him to collaborate with an outlaw smuggler gang. Upon hearing the sound of the army drums beating tattoo, he tells her that he has to return to his garrison immediately, in accordance with his instructions (his "consigne"),² but she ridicules him, comparing him to a tame canary (a reference to his yellow army

²"Il faut que j'aïlle au quartier pour l'appel..." (p. 135).

costume). Later on, when he sees her in the company of his lieutenant, he kills the latter in a fit of anger and, in order to escape death penalty, with no other “career options” left, he decides to become a gang member after all.

He soon learns that Carmen is married and that the life of a criminal is not as wanton as he suspected. She dominates him completely and uses her feminine attractions to further the band’s enterprises, making him sick with jealousy. After her husband is released from prison, Don José kills the latter in a knife duel, so that Carmen formally becomes his wife. But she despises him and although bad omens inform her that he will kill her, she falls in love with a picador. Overcome with despair, Don José stabs her to death and turns himself in. The final part of the story is a scholarly treatise on Romani lore, apparently written to probe the enigma of Carmen’s gaze and voice (an instance of mock university discourse as it were).

Although Carmen is usually seen as a novel devoted to the toxic, disruptive and addictive nature of erotic desire (with Carmen’s enigmatic gaze and voice serving as the novel’s object *a*), I will reread it as a misconduct novel: a story about faltering academic scholarship, structured like a personality test. The test element is already apparent in the beginning of the story, when the archaeologist shares a cigar with a criminal and even helps him to escape. Before doing so, there is a symptomatic *Fehlleistung* already mentioned. The archaeologist is subjected to a pond-test. Instead of drinking water with his hands, sitting on his knees as civilised, self-contained persons are expected to do, he lies flat on his belly, drinking water directly with his mouth, “like the bad soldiers of Gideon” (that is: like an animal). Thus, he fails the test. This normative deficit is also reflected in his research activities. Instead of being fully committed to his scholarly work (exploring Andalusia to test his hypothesis), his encounter with Carmen disturbs his project. He becomes torn between his quest for the archaeological missing link (a piece of evidence which would confirm his archaeological theories) and the disturbing distractions of contemporary life (embodied in a condensed way by Carmen’s alluring gaze). Like Don José (the deflecting Basque soldier), the scholar-narrator is exposed to and falls victim to Carmen’s charms. But although he initially fails the test, he eventually manages to sublimate his conflict ($M_2 \rightarrow M_3$) by becoming an archaeologist of the present, a psychoanalyst who explores the dynamics of human desire (novel-writing as a synthesis of archaeology and anthropology).

In the case of Don José, the deflection is more radical and irreversible. During his exposure to Carmen, in front of the tobacco factory in Seville, Don José’s professional integrity (his metal) is being tested. At first he seems a very dedicated soldier (M_1), but his attitude of strict compliance is an immunisation device meant to cover-up a basic vulnerability, mercilessly exposed by Carmen during their first encounter (M_2).

Carmen is a novel about a scholar who endangers, but eventually manages to elevate his research to a higher level of complexity and relevance as it were. Compared to the opera version, there is a much stronger focus on the *knowledge* dimension. The opera version highlights the *power* dimension first and foremost. Here, the first moment (the exposition stage: M_1) is reminiscent of Michel Foucault’s *Discipline and punish* (1975). Factories, army barracks and penitentiary institutions

serve to domesticate an unruly, multi-ethnic population, and Don José is one of these individuals who is conditioned and subjugated (subjectified) by the reigning power regime. As soon as he hears the drums, his conditioned reflex is to return to the barracks immediately, without further ado, for that is his *instruction* (“C’est la consigne”), the imperative of the Big Other, the discourse of the panoptic Master. He is the recipient of a call and has to respond in an almost automatic fashion (M_1). But due to the challenging exposure to Carmen (the object a of his desire) the power machinery falters and the conditioned reflex (return to the barracks!) becomes impaired (M_2). The exposure is the experimental condition as it were: Don José is put to the test and fails, deflecting into apostasy. His first infraction (allowing Carmen to escape because of her Basque phrases) is the first step in a process of escalation. Carmen derides his compliance, which contrasts with the behaviour of the lieutenant, who somehow seems perfectly able to combine army discipline with erotic pleasure. Don José experiences a basic split or *Spaltung*. He fails to constitute himself as a moral subject by adequately addressing the challenge ($M_2 \rightarrow | M_3$).

But what is the exact nature of the collision? Initially, it seems a conflict between instinct and obligation (in accordance with the repression-hypothesis, or with the basic tension of Kantian morality between inclination and duty). But the situation is much more complicated than that. What Don José fails to recognise is that his craving for Carmen (which revolves around her gaze, her voice, her Gestalt) is actually a by-product of the disciplinary regime itself (the discourse of the Master). It is *because* of the prohibition (S_1), addressing him as a compliant, professional soldier (S_2), that his desire is aroused (a in the lower-right position as by-product):

| | |
|-------|-------|
| S_1 | S_2 |
| $\$$ | a |

It is *because* of his sensitivity to the call of the drums (to his “consigne”) that Carmen’s gaze, Gestalt and voice can emerge as the object of desire (a), as something utterly desirable, but also intractable and beyond his reach. She becomes his object *because* he realises that, should he allow himself to be lured away from his vocation, this scenario would prove fatal. It is precisely her toxicity (in view of the whole power constellation) that makes her so irresistible.

By stabbing the lieutenant, he relapses into masculine protest, challenging the authorities: an act of manifest subversion against the military regime ($S_2 \rightarrow \$$). In other words, he enacts a quarter turn to the right, so that Master’s discourse gives way to the discourse of the hysteric:

| | |
|------|-------|
| $\$$ | S_1 |
| a | S_2 |

But this does not solve the conflict. After their escape (from the tobacco factory and from the army barracks) Carmen and Don José spend most of their time on the road, like travelling nomads, from one place to the next, but it is not a pastoral

situation. New obstacles (notably Carmen's husband, the band leader) get in the way and Don José again finds himself in a situation in which he has to obey instructions. But he does not seem to *know* what he wants or what is driving him into despair.

After Don José's arrest, the archaeologist visits him, to hear his confession as it were, and the novel becomes a *Fallgeschichte*, shifting into the discourse of the analyst. What made Carmen so fatally attractive? The focus is now on the object *a* (the object of desire) as agent, on the disruptive impact of her gaze and voice on the tormented subject ($\$$ in the upper-right position):

| | |
|----------|-------|
| <i>a</i> | $\$$ |
| S_2 | S_1 |

In order to play the role of analyst, the narrator (the qualified archaeologist) suspends his expertise (S_2 = academic knowledge pushed into the lower-left position), which allows him to listen with evenly-poised attention. The result (by-product) of the analysis is an important normative insight. Unlike what is suggested in the Opera ("L'amour n'a jamais, jamais connu de loi"), Carmen does *not* represent pure freedom, and she is *not* at all a lovebird who persistently refuses to be subjugated by rules and laws. She does *not* represent a love which knows no laws.³ Rather, her narrative reflects a fundamental collision between two normative regimes ($S_1 \leftrightarrow S_1$). The *human* (written) law of the modern world of discipline and punish (of rules and regulations) collides with another, more ancient sense of obligation, which she refers to as the Law of Egypt ("La loi d'Égypte, p. 135"), and which Hegel (1821/1970) and Lacan (1959–1960/1986) refer to as the *divine* (unwritten) *law*. Indeed, Carmen embodies the collision between human and divine Law which plays such a crucial role in Hegel's *Philosophy of Right* (1821/1970) as well as in tragedy as a genre. Carmen is a nineteenth-century version of Antigone. She acts the way she does because she cannot do otherwise, *not* because she is driven by instinct (as a female vamp or something like that), but rather because she herself is under the sway of an incommensurable *normative* code. In other words, by suspending expert knowledge (S_2 in the lower-left position) and focussing on the fatal interaction between Carmen (*a*) and Don José ($\$$), a crucial normative insight is brought to the fore (S_1 as by-product): the eroticised female criminal is actually a profoundly spiritual person, a devotee who articulates one of the highlights of continental philosophy: Hegel's dialectics of human and divine law (S_1), the clash between legalism and moral truth. I will now further elaborate these reflections starting with the Master's discourse that pre-structures the topology of the scene, most conspicuously in the opera version, but also in the novel.

³The nineteenth century prejudice that "primitive" people (such as Romani) are less constrained by laws than modern Europeans was also addressed by Freud in *Totem and Taboo*, 1913/1940). Rather than being wanton and licentious, the life of "primitive" people is determined by remarkably harsh inhibitions.

Carmen-the-opera begins in front of the tobacco factory about to open its doors for the next shift, consisting solely of female workers, while a group of soldiers is waiting for a change of guard. It is a world disciplined by societal stratifications and timetables, grounded in a rigid compartmentalisation of time and space. The same topology can be discerned in the novel. Outside the barracks, the subject (S_2) remains a recipient of a summons (exemplified by the French term “consigne”, which means order or instruction). The signal resounding from the army barracks strikes him as a categorical imperative which he simply *has* to obey, whatever the circumstances. It is the compulsory force of this signifier, this command (emitted by S_1) which sets everything in motion. There is no room for wavering or doubt ($\$$ firmly pushed back into in the lower-left position). Don José (the recipient) is a professional soldier, a qualified and allegedly reliable guard (S_2 in the upper-right position), who simply has to obey. All this reflects the topology of power, the discourse of the Master:

| | |
|-------|-------|
| S_1 | S_2 |
| $\$$ | a |

When Carmen enters the scene at the beginning of the opera, he pretends to ignore her, so as to immunise himself against her aura (unconsciously aware of his susceptibility, his vulnerability perhaps). But it is *precisely because* all interactions with her are strictly forbidden that her gaze is sublimated into something toxic and dangerous: the object of desire (a), something completely *other*, exotic and out of reach. Her alluring, captivating seductiveness is reinforced by the constellation. In accordance with his *consigne* (S_1) the professional soldier (S_2) *seems* self-contained, but this is a façade. Carmen, a gifted Romani folk psychologist, immediately notices the vulnerability (covered-up by his apparent indifference): she has found her target. Her gaze, her voice, something about her Gestalt, seems extraordinary and irresistible. As indicated, precisely the fact that she is beyond reach sublimates her into a thing of extraordinary value (the object a , representing the illicit object of desire as by-project of the Master’s discourse, in the lower-right position).

In *Carmen* the novel the initial protagonist is not the tormented Basque soldier, torn (as a divided subject) between his *consigne* and the object of his desire ($S_1 \leftrightarrow \$ \leftrightarrow a$), but rather the French gentleman-scholar who travels to Andalusia to conduct research for his dissertation on Caesar’s expeditions. Ignoring the topology of the present, he tries to reconstruct the topology of the past. The beginning of the novel again reflects the discourse of the Master:

| | |
|-------|-------|
| S_1 | S_2 |
| $\$$ | a |

The scholar's starting point is a guiding, authoritative document (S_1): an anonymous treatise entitled *Bellum Hispaniense*,⁴ which he has scrutinised (as a scholarly expert: S_2 in the upper-right position) and his philological exercises resulted in a new hypothesis concerning the exact location of the battle, which he now puts to the test. In other words, he travels to Andalusia to free himself from the sway of the Master (the prison of library scholarship) and to become an empirical researcher, an authority himself. In terms of Lacan's quadruped, he aspires a quarter turn to the left into university discourse:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

He aims to become an autonomous researcher (S_2 in the position of agent), someone who develops and tests his own hypothesis, who deviates from established scholarly views (which are suspended and pushed into the lower-left position: S_1). The targets of his research are decisive archaeological remains (as object a) which derive their value from the fact that they may confirm or disprove his reading (the exact location of the battle of Munda is still controversial among archaeologists up to this day). In other words, the narrator (who felt trapped in the discourse of the Master: the scholarly pursuit of textual analysis, under the sway of previous generations of scholars) tries to realise a quarter-turn to the left, so that the outdated views of previous scholars become suspended (S_1 pushed into the lower-left position) and he can test his hypothesis (question the object) in a more direct and empirical manner (S_2 now in the position of agent, replacing the authoritative discourse of the Master with empirical research and university discourse). The archaeologist (who conducts his research in the autumn of 1830) distrusts the claims made by older colleagues, and his starting point is academic scepticism: the original source (S_1) is about to be *negated* by his fieldwork. The discourse takes a turn to the left: from a respectful reliance on an ancient source (the logic of the Master's discourse) to university discourse, where empirical research enables the academic subject (S_2) to adopt a critical distance to sources, in favour of direct interaction with the intractable object of research:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

In other words, while exploring the current landscape, he is actually looking for *something else*, namely traces of a previous epoch, a layer now covered by the (more or less irrelevant) present, represented (via condensation) by the object a of his scholarly treasure hunt, that which made him travel all the way from Paris to Andalusia, a potential but (as yet) allusive archaeological trace, preferably in the

⁴Referred to as "the worst book in Latin literature; its text is the most deplorable. The language is generally ungrammatical and often unintelligible" (Holmes 1928, iii, p. 298).

form of concrete archaeological objects: ruins of fortifications or sculpted stones or (better even) inscriptions (*a* in the upper-right position): hidden signifiers from the past, reflecting and commemorating Caesar's actions, something that will allow him to publish an academic memoir that may end the controversy among the specialists (Mérimée 1845/1965, p. 91) and make him famous. His aim is to *see through* and erase the present in order to address and rediscover the lost world of the absent past. As a qualified expert, he is also guided by a "consigne", but in a less conspicuous way. As a professional scholar he has internalised the academic imperative, assuming a position of agency (S_2 in the upper-left position; S_1 now in the lower-left position). He is not drilled by army drums as in the case of Don José, but driven by an internal motive, a personal will to know.

But his research falters and he fails to come up with a single find. He does not give the impression of being very committed either. Due perhaps to his inability to find the object *a* (and contribute to the body of archaeological knowledge, revivifying the dead letter of the text through field work), he deflects, and becomes increasingly interested in something else. Instead of persevering as an archaeology scholar, he fails the test. He experiences a split (*Spaltung*) between past and present, between his rereading of the authoritative source and the contemporary landscape, but also between the requirements of archaeological research on the one hand and the enticing temptations (both erotically and intellectually) of the contemporary world ($S_1 \leftrightarrow \$ \leftrightarrow a$). The current population of what once was Munda Baetica clearly disappoints him, but he becomes fascinated by the itinerant subculture of outlaws and brigands, exemplified by Carmen's paralysing gaze, her exotic aura, her strange superstitions: the object *a* of ethnography. Her gaze now becomes the object *a* of his *cupido sciendi*, and he is on the verge of falling victim to the matheme of desire ($\$ \diamond a$).

This interest, stirred by Carmen, happens to concur with another illicit (non-academic) fascination, for he now confesses that, as a student, he had "wasted" considerable amounts of time on studying the occult sciences (p. 110): another apostasy (from the point of view of university discourse). Carmen the enigma (with her strange, fierce, "inhuman" eyes, completely fixated on his golden watch, p. 111) now becomes the focus of his intentionality. He allows himself to be trapped by her, for he wants to find out the enigma of her knowledge (an experience which he barely survives). He deflects to a different kind of research: archaeology of the present. Not the quasi-ethnographic, quasi-scholarly reflections concerning the customs, history, language, etc. of the Romani to which the final pages of the novel are devoted, but rather his psychoanalytic assessment of the dynamics between Don José (the criminal) and Carmen (his femme fatale). Thus, the frustrations as a qualified archaeologist, who came to Andalusia to put his knowledge to the test (S_2 in the upper-left position) give rise to an unexpected by-product, a growing experience of *Spaltung* ($\$$ in the lower-right position) between his formal academic assignment and his budding *cupido sciendi*, converting him into a psychoanalyst *avant la lettre*. His deflection contrasts with Don José's more dramatic and disruptive apostasy, however, for while the latter deserts the army to become a rebellious brigand, the scholar rather endorses the discourse of the analyst, so that he is able to render the tormented soldier a patient ear:

| | |
|----------------|----------------|
| <i>a</i> | \$ |
| S ₂ | S ₁ |

Don José confesses how his craving for Carmen (*a*) resulted in a deflection, in “misconduct” as a soldier, followed by his imprisonment and demotion (\$) in the upper-right position). But he also confesses that he does not really *know* what is so appealing, so addictive and toxic about Carmen: the object-agent which set his story in motion (*a* in the upper-left position). But Carmen as a *real person* (not as an *object* but as a *subject* of desire) is torn between two incompatible worlds as well. The opera libretto presents her as a lovebird who knows no laws, but actually she is extremely law-abiding. As agent she is torn between two incommensurable imperatives (\$). She is susceptible to a different, exotic, *unwritten* law. It is this loyalty to a more ancient law that makes her despise and provoke the representatives of human law (S₁ in the upper-right position). Like Antigone, she represents the discourse of the hysteric:

| | |
|----------|----------------|
| \$ | S ₁ |
| <i>a</i> | S ₂ |

She confronts the authorities (S₁ in the upper-right position) because she is addressed by and susceptible to an inner voice of conscience (*a*). And the by-product of this discursive constellation is an ethnographic report of the life and activities of Andalusian Romani, of gypsy lore (S₂ in the lower-right position), indicating that the deflected archaeologist indeed became an anthropologist (S₂ → S₂).

The novel as such is structured as a series of personality tests (testing the metal of the narrator and of Don José) culminating in a confession, so that the novel actually evolves into a (psychoanalytical) *Fallgeschichte*. The narrator sublimes the negation or subversion (M₂) of his initial consignment (M₁) by reconciling his scholarship with his interest in the present (the negation of the negation: M₃). He remains a *homme des lettres*, but switches his focus of attention from the diachronic to the synchronic dimension, from the oedipal stage of Western history (Caesar’s bold victories over the establishment) to the contemporary stage. He regains his integrity (undermined by his deflection) by becoming an impromptu psychoanalyst (an archaeologist of the present), but also via novel-writing as a practice of the Self, a form of working-through. Don José confesses the story of his infatuation with Carmen, in accordance with the matheme of desire (\$ ◊ *a*). The question is: how could this happen, what exactly caused the fatal attraction, the deflection. What was the intractable something that provoked him and lured him into deflection and eventually destroyed him, although he desperately tried to silenced her gaze and voice (the object *a*) by killing her.

Thus, we have entered the discourse of the analyst, placing the object *a* in the upper-left position as agent, the thing which sets everything in motion, with Don

José (the tormented, divided subject) in the role of recipient (§ in the upper-right position):

| | |
|-------|-------|
| a | \S |
| S_2 | S_1 |

To be able to play this role and probe this fatal dynamics, the archaeologist must leave his field (S_2 = academic expertise pushed back in the lower-left position). He is no longer a frustrated archaeologist, but rather an analyst hearing a confession, exploring the subject's psychic past. In contrast to normal confessions, as Freud phrases it in *The Question of Lay Analysis*, Don José not only confesses everything he knows, but also what he *does not know*.⁵ During the analytical session, he explores his unfathomable fascination and obsession for his object a , embodied by Carmen. And the by-product of this exercise is an important ethical insight, an important truth (S_1), namely that Carmen is not lawless at all. Her world is not a moral vacuum, where all normativity is suspended or eliminated, far from it. After shifting from the archaeology of the Roman past to the archaeology of the present (psychoanalysis) and in the context of a psychoanalytical retrospect it becomes clear that the moral topology of Carmen's world is pre-structured by the collision between two irreconcilable forms of normativity, namely the *human* law of societal legislations and regulations versus another, *unwritten*, enigmatic law, the "law of Egypt" (the divine Law, overruling the human law; S_1 emerging in the lower-right position), a form of normativity to which Carmen is extremely sensitive, due to her "upbringing", according to Don José:

| | |
|-------|-------|
| a | \S |
| S_2 | S_1 |

Unlike university discourse, this type of discourse is not about producing *knowledge* (archaeological evidence, ethnographic treatises, etc.), but about *truth* (the desire of the subject). The question is: can a practice of the Self unfold which allows us to constitute ourselves as moral subjects, vis-à-vis integrity challenges we encounter?

In the course of the literary case studies explored in this monograph, this conceptual and methodological framework will be further refined, amounting to an extrapolation and elaboration, rather than a mere "application" of Lacan's theorem. Provisionally we may conclude that misconduct, seen through the lens of the misconduct *novel*, is not a matter of self-centred calculations versus normative obligations, but rather something which emerges in a situation of conflict between

⁵"In der Beichte sagt der Sünder was er weiß, in der Analyse soll der Neurotiker mehr sagen" (In confession the sinner tells what he knows; in analysis the neurotic has to tell more ... more than he knows (Freud 1926/1948, p. 215)).

expectation and realisation, between knowledge and truth. It is, in other words, a misguided act of despair in response to an unfolding, existential crisis.

3.4 Qualified Experts: Benefactors or Enemies of the People?

Ibsen's play *An Enemy of the People* [*En Folkefiende*], written in 1882, is set in a quiet Norwegian coastal spa. Doctor Thomas Stockmann, the scientist, the professional expert (S_2), is staff physician at the municipal baths, a position which he owes to his older brother Peter Stockmann: the town's conservative mayor, who also acts as chairman of the board of the bath facilities (the main source of income for the town, its hope for the future). In *Act I*, Doctor Stockmann receives a letter from the university confirming his suspicions that the water of the spa is contaminated with "infusoria", so that, rather than being healthy, it is "injurious to health, for either internal or external use". Infusoria are not yet domesticated objects in the 1880s. Rather they represent scientific novelties which question the hegemony of human beings. By opening up a whole new environment, only visible with the help of optical contrivances, they are a source of unease. As Stockmann lacks the necessary scientific equipment, he had sent samples of drinking water and seawater to the university lab for a thorough analysis (p. 299). Seeing his suspicions confirmed, he sends a report of his findings to the board of directors (chaired by his powerful brother), but at the same time he dispatches an article to a local progressive newspaper (*People's Courier*), the mouthpiece of the Mayor's political opponents.

The two Stockmann brothers have a strenuous relationship. They have a dispute, for instance, concerning the question who had been the first to come up with the idea of building a spa. Apparently, whereas the Mayor was the one who "got the thing moving and put it into practical reality ... the idea came from the doctor first" (p. 286), a prototypical description of the relationship between *knowledge* (Thomas) and *power* (Peter). The Doctor conducted his inquiries into the water condition secretly, without informing his brother (his immediate superior). And now, he intends to use his "great discovery" to demonstrate that the Mayor is incompetent. Indeed, he hopes that, via his newspaper article, his discovery will stir up a local political "revolution" (p. 325). But the Mayor manages to convince the left-wing editors that the costs of Stockmann's proposals for rebuilding the bath would be immense, and that his wild conjectures will actually ruin the town's economy. Therefore, to Doctor Stockmann's astonishment, or even outrage, the left-wing journalists refuse to print his manuscript. Stockmann then decides to organise a meeting to share his findings with the public, but when (due to clever manoeuvring by the more experienced politicians present, notably the Mayor) he is prevented from giving his speech, he decides to present an impromptu lecture on his broader political views, revolving around a "more important discovery", namely the claim that the educated minority (the enlightened avant-garde) is intellectually superior to

the uneducated majority, the “masses”. In response to his tirade as “a man of science” against popular opinion, he is branded an enemy of the people and in the final act he considers emigration to America (exile as his final option).

Whereas literature and science studies often focus on documents which suggest a lack of ethical consciousness among scientific researchers (Peterfreund 1990; Haynes 1994; Haynes 2003; Caudill 2011, p. 50), Ibsen’s play is interesting because, rather than depicting science out of control, it describes a far more complex and dialectic interaction between knowledge and power. Doctor Stockmann is often heralded as a whistle-blower, a champion of truth, who runs into conflict with prejudice, hypocrisy and vested interests, but on closer inspection the dynamics of the science-power relationship are far more complicated (Zwart 2004). Let us have a closer look, using Lacan’s theorem of the four discourses as our conceptual lens.

The Mayor (Peter Stockmann) represents the discourse of the Master in Ibsen’s play. He functions as the unshakable embodiment (Peter = πέτρα = rock) of local authority. The bath facilities entail huge financial risks and the success of the endeavour (notably the support from the big stockholders and, by implication, the value of the stocks) relies to a considerable extent on Mayor Stockmann’s name and prestige. His brother Thomas, who had spent a number of years in the far north of the country under taxing circumstances (living on “starvation wages”) works as staff physician (medical officer) so that the Mayor (to whom he owes this position, – and the salary that goes with it) is his direct superior. In other words, Thomas Stockmann, the professional expert, finds himself in the position of the Servant (S_2 in the upper-right position): the recipient of assignments and directions coming from the father-figure, the person in power (S_1 in the upper-left position of the agent).⁶ The Master (burgomaster) even appropriates Stockmann’s ideas (notably the idea of establishing a bath facility in the first place). For, according to the logic of the Master, since the Mayor (the Master) “owns” him (by paying his salary etc.), the Master may also claim ownership of his ideas. In the course of the play it becomes clear that various controversies, uncertainties and doubts had emerged during the development of the baths, but these were firmly pushed beneath the bar and the town seems on the verge of a flourishing future, with coastal health tourism as a promising prospect. Ibsen’s play is structured in alignment with the discourse of the Master:

| | |
|-------|-------|
| S_1 | S_2 |
| $\$$ | a |

Yet, Stockmann’s interactions (as a Servant) with coastal nature (swimming and drinking water) in a fairly direct, empirical and hands-on manner inevitably become a source of autonomy and power (in accordance with Hegel’s dialectics of Master

⁶“MAYOR: The individual has to learn to subordinate himself to the whole, to those authorities charged with the common good” (p. 291); “As a member of the staff, you’re not entitled to any personal opinions ... as a subordinate official at the baths, you’re not entitled to express any opinions that contradict your superiors” (p. 319).

and Servant). His increase of power (at the expense of the Master) is confirmed when Stockmann finally makes his “great discovery” (p. 297). His research activities, which are not explicitly part of his assignment, are conducted in secret as we have seen, so that his discovery (his claim that millions of infusoria have contaminated the water supplies) represents a by-product of the power-knowledge constellation (with the enigmatic but toxic infusoria as the object a in the lower-right position). Now that Doctor Stockmann has made his great discovery (has found his object a), he realises that he has something in his hands (literally), namely a contaminated water sample, which allows him to challenge the status quo and to subvert the power of the Master. The letter from the university confirms his suspicions and indicates that “the whole establishment is poisoned” (298), as waste water from the tanneries (a more traditional source of income) is seeping into the pipes. His suspicions can no longer be discarded as a product of his lively fantasy and the university letter transforms a mere water sample into something highly significant, a thing of value: an object a , a powerful symbolical tool which allows Stockmann to disrupt the political power balance. Or, as Stockmann phrases: the samples, whose contamination is confirmed by the formal letter, allow him to challenge “the superstitious myth of the infallibility of the authorities” (p. 307). In other words, the letter from the university suddenly changes his position. From a mere Servant (acting as the recipient of top-down assignments coming from an autocratic ruler) he is transformed into a “man of science”, the agent and spokesperson of university discourse licensed to produce knowledge.

This significantly enforces his agency and puts him in the position of the agent (S_2 now in the upper-left position), so that the *discourse of the Master* gives way to *university discourse*. The discursive setting of Ibsen’s drama undergoes a quarter turn to the left. The archetypal Gestalt of the mayor, decorated with insignia of power, is overturned and the town suddenly finds itself “on the verge of a revolution” (p. 325).

Initially, Doctor Stockmann seems to delight in his new role, challenging his brother’s power position as a professional expert, a “man of science” (p. 289, p. 319), taking the floor as a conscientious researcher (S_2 in the position of the agent) who had worked quietly for months (“in seclusion”, focussing exclusively on his infusoria, his samples) to put his misgivings to the test, suspending any political or ideological motives (S_1 in the lower-left position) while focussing on his object of research, his research results, hoping it will prove a “great discovery” (p. 297, p. 303), hoping that these samples will indeed function as his object a . In short, initially, Doctor Stockmann’s discourse aligns with what Lacan refers to as university discourse:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

In this position (as an emancipated, professional scientist) he challenges the intellectual ownership of the Mayor, reclaiming the original idea for developing a

bath facility. His aim is to free himself from the Master's sway by pushing S_1 beneath the bar (silencing the Master's voice). Allegedly, his focus is solely on the scientific issues (a). This means that he disavows the extent to which his research is actually spurred on by political motives, by *his own* political ideology.

During his coming out (in Act Four), however, it becomes clear that Stockmann's scientific research (S_2 in the position of the agent) is actually guided by a basic truth (S_1 in the lower-left position), an ideological view that collides with established convictions. Stockmann's discovery destabilises the political situation by generating uncertainty and turmoil ($\$$ in the lower-right position, as a by-product of his research). The letter of the university reinforces the disruptive power of scientific knowledge vis-à-vis the traditional power regime. It soon becomes clear that his finding is not purely a technical matter, but will have serious political and economic implications as well: that his discovery is "interrelated with a lot of other things" (p. 306). The epistemic novelty quickly becomes entangled in a complicated web of socio-political relationships.⁷

Under the sway of this philosophical discovery, Dr. Stockmann eventually relapses into a different kind of discourse: the discourse of the hysteric ($\$$ now in the upper-left position), confronting the establishment and challenging established political views (S_1 in the upper-right position):

| | |
|------|-------|
| $\$$ | S_1 |
| a | S_2 |

He now concedes that his real and ultimate *discovery*, the revelatory *insight* or missing link that inspired his allegedly objective research (a in the lower-left position) is of a completely different, political and philosophical nature. His scientific work (S_2) is now presented as a by-product of what actually is a clash between worldviews ($S_1 \leftrightarrow S_1$ in the upper-right position). His real discovery is that the most insidious enemy of truth and freedom is "the majority". Rather than challenging the power of the "authorities" in the name of science, Stockmann's *real* concern (as a free-thinker) is the democratic "prejudice", endorsed by the Mayor's liberal opponents, that "the majority is always right" (p. 355): the basic philosopheme (S_1) of a democratic culture. This statement, Stockmann argues, must be replaced by its logical negation, namely the (Platonic) conviction that the *minority* is right, that an avant-garde minority of scientists and enlightened intellectuals should rule the world, because "the majority is never right" (p. 356). In other words, power to the intellectual elite (first and foremost to himself)!

ACT FOUR stages Stockmann's coming out as a self-inflated, provocative prophet ($\$$). In the course of his public lecture, Stockmann moves beyond the constraints of university discourse (which revolves around professional and technical expertise) and relapses into the discourse of the hysteric, challenging the position of

⁷MAYOR: "What's involved here is not a purely scientific problem. It's a mixture of both technical and economic considerations" (p. 319).

the Master (the “clique of politicians”, the “Mayor and his cronies”, the “ring of reactionaries”, etc.) in a boisterous, provocative way.⁸ In terms of the *περίακτοι*, i.e. revolving triangular wooden devices of ancient Greek drama, the situation suffers a dramatic turn. Not only the waterworks as such, but rather society as a whole must now be purged and disinfected (p. 327). In the terms coined by psychoanalyst Alfred Adler (1920/2006), Stockmann regresses into an oedipal position of “masculine protest”. In his confrontation with representatives of traditional and democratic power regimes, he rejects both options, thus running into conflict not only with the traditional regime embodied by his brother, but also with the new power regime heralded by *People’s Courier*. Both his brother and the left-wing journalists act as the recipients of his boisterous message:

| | |
|---|----------------|
| § | S ₁ |
| a | S ₂ |

As a researcher, Doctor Stockmann had represented university discourse, focusing on the object *a* of later nineteenth-century microbiology, the toxic little animals (*animalculae*) or infusoria detected by “microbe hunters”, as science author Paul de Kruif (1926) called them, equipped with powerful microscopes (φ):

| | |
|----------------|---|
| S ₂ | a |
| S ₁ | § |

But his sudden revelation produces a split or *Spaltung* (§ in the lower-right position) between his scientific conscience and his political engagement, resulting in a drastic reversal of the scene, a relapse into a hysterical position. For Stockmann’s real source of inspiration, the “object a” that spurs him into action, is of a completely different nature. Stockmann experiences himself as a subject who is constrained, paralysed and emasculated by the existing power regime ($-\varphi$), and he desperately want to use his discovery (and the letter of the university confirming it) to restore his sense of autonomy and performativity. To achieve this, his scientific activity, his scientific discovery seems merely a pretext. He is not interested in infusoria as such, for it is rather the spiritual contamination (due to “lack of oxygen” in Norwegian houses, rather than to microbes), which infuriates him. Therefore, he uses his discovery to confront his older brother (his father figure).⁹ But in order to grasp this, we must revert to the discourse of the analyst which explicitly raises the question what is driving this tormented subject, who becomes a victim of his own

⁸“DOCTOR STOCKMANN: “The worship of authority has to be uprooted” (p. 311).

⁹MAYOR: “You want to attack your superiors – it’s your old pattern. You can’t stand any authority over you; you resent anyone in a higher position and regard him as a personal enemy” (p. 318). In other words, the Mayor assesses Stockmann’s assault on him as a symptom of oedipal masculine protest, discarding his discourse as hysterical. This is confirmed by Stockmann himself, moreover, in utterances such as “Our leaders are one group that I can’t stand. I’ve had enough of that bred... They get in a free man’s way... We should exterminate them” (p. 354).

discovery, trapped in the very contraption he had designed to overthrow his father-figure.

Lacan describes the structure of the discourse of the analyst as follows:

$$\begin{array}{c|c} a & \$ \\ \hline S_2 & S_1 \end{array}$$

This puts the object *a* in the position of the agent: the missing link, the invisible cause of the political malaise. In *Enemy of the People*, the role of object *a* is played by the infusoria. From the very beginning, there is something disconcerting about these little animals, first of all because nobody can actually *see* them. These “infusoria” are of the order of the signifier: they exist in a symbolical manner, as a term, on paper. They exist as labels on water samples, sent off to laboratories that will detect, identify and quantify them, they are mentioned in the letter from the university, in the four-page report submitted by Stockmann to the board of directors, and in the manuscript for a newspaper article submitted to the *People’s Courier*,¹⁰ but for most of the characters in the play they remain something invisible, something utterly intractable and intangible, something which is impossible to grasp. Some tourists had fallen ill, and some cases of typhoid and gastritis had been reported, but were these infusoria really to blame? Stockmann’s “object *a*” remains a symbolical concept. His toxic little animals (*animalculae*) are addressed and dealt with in a symbolical manner, but they are never really present as visible, material objects. Their ontological status remains questionable.

It is the *signifier* “infusoria” which plays an active role, rather than the living microbes as such (which had already been there for quite some time without anybody noticing it). It is the *letter* from the university (containing the signifier “infusoria”) which sets the socio-political machinery into motion. It is as if their toxicity is of a symbolical, rather than of a physical nature, as if they destabilise the political status quo as soon as they are mentioned in a formal letter. And should they be mentioned in a printed newspaper article as well, as is Stockmann’s (thwarted) intention, they will certainly cost the town a lot of money. It will force the authorities to redesign the installation of the baths, and the expenses for that will run into a hundred thousand Kroner. As soon as these little animals appear in print, they will affect the value of the stocks. In short, the object *a* functions as a toxic signifier, and Ibsen’s drama describes the circuit, the itinerary of this signifier, from Doctor Stockmann’s study to the university laboratory and back, traveling in envelopes, and from there they are carried into the editorial office of the *People’s Courier*, and finally they arrive in the improvised lecture hall, wreaking havoc and upsetting the status quo wherever this inexorable “something”, this label (*infusoria*) shows up. It is a signifier, moreover, which connects a small Norwegian town with the world at large,

¹⁰The manuscript itself is also regarded as a kind of sacred page. Stockmann addresses Aslaksen, the printer, in the following way: “give the manuscript your personal attention. Handle it like gold. No misprints... Don’t cut any of the exclamation points...” (p. 327).

with the research of Pasteur and Koch, with the world of modern tourism, modern mass media and modern science.

Thus, these little animals, as the *objet a* of Ibsen's play, remain something ungraspable or even immaterial. And this even applies to Stockmann himself, who confesses that even for him, the infusoria are merely a symptom of what he regards as the real infection: the "spiritual contamination" of society at large ("all the sources of our spiritual life are polluted", p. 353). In other words, as soon as the infusoria are discovered, and their discovery is confirmed, they put Doctor Stockmann (the recipient of the letter confirming their existence) out of balance. The object *a* is the agent (upper-left position) that destabilises Doctor Stockmann ($\$$ in the upper-right position). Eventually, the scientist reverts to the role of prophet and his ego becomes inflated. His outreach to the audience, his public sermon is a by-product of his research (S_1 in the lower-right position). In this constellation, Stockmann's persona becomes Zarathustra-like. After spending many years up north, he now descends from his isolated position in order to take the floor and spread his disconcerting gospel, namely that the enlightened minority is consistently ignored by a stupid and backward majority, so that "the stupid ... rule the intelligent", p. 356). It would be better if the masses were seen as the "raw material" out of which a people is to be shaped by the elite. This sermon purports to be a "scientific" lecture of the S_2 -type (Stockmann compares governance with animal husbandry for instance, p. 358), but actually it is a sermon of the S_1 -type directed at everybody (the conservative establishment, the liberal opposition, the wider audience) and claiming (as S_1 -type prophets tend to do) that everyone who refuses to endorse his truth should be stamped out "like vermin" (p. 361). Instead of restoring his integrity, he is exposed as an impostor, who abuses scientific facts to propagate a world-view.

From the point of view of research integrity discourse, Thomas Stockmann is often presented as a whistle-blower, a champion of truth, by Bernard Shaw (1891) and Emma Goldman (1914) for instance, but a psychoanalytical rereading reveals why this assessment is short-sighted. Take for instance Stockmann's decision to conduct his research in secret,¹¹ in order to take his antagonist (his brother) by surprise. A far more constructive approach would have been to share his concerns (and subsequently his proposal to take water samples and send them to university experts for analysis) with the board, who appointed him precisely to signal and address emerging health risks in a transparent and responsible manner, so that a comprehensive plan of action could have been developed. Now, his brother, being suddenly confronted with an unexpected novelty, is drawn into a struggle for political survival. Also, he should have informed the board *before* sending his article to a (politically biased) newspaper. Going public (with his concerns and his test results) would have been defensible if the board would have refused to take his report seriously, would have refused to consider his plans of action, but now the responsible authorities are simply denied this opportunity. In terms of integrity discourse, he "failed to use the proper reporting channels" (Miethe 1999, p. 218). From the very beginning,

¹¹ MAYOR: "Was it necessary to press all these investigations behind my back?" (p. 313).

Stockmann is determined to use (abuse?) his test results as a weapon in a political campaign, in a call for revolution, so that science becomes instrumentalised. It is Stockmann himself who subjects research to politics.¹² Instead of adhering to university discourse, he lapses into the discourse of the hysteric, which makes his message less credible and convincing.

In response to his defeat, Stockmann designs a new experiment. He wants to start a school to serve as a pretext for his research: exposing 12 schoolboys to a regime of oxygen and enlightened political ideas. But here again, science (the educational “experiment”) is merely a façade, for his real goals are of a political and ideological nature (raising future revolutionaries). The new experiment (exposing research subjects to oxygen and enlightenment without their consent) is reminiscent of another literary figure, Doctor Stockmann’s counterpart or alter ego, namely Doctor Ox, the key protagonist of a short novel written by Jules Verne, Ibsen’s contemporary (both authors were born in 1828).

3.5 Dialectics of Enlightenment: The Two Experiments of Dr. Ox

Verne’s story describes an experiment conducted in a quiet provincial Flemish town by two prototypical Verne-characters, namely Dr. Ox, chemist and physiologist, and his faithful assistant Gédéon Ygène. The town’s Burgomaster gladly accepts Dr. Ox’s offer to develop a lighting system based on “oxyhydric gas” (i.e. steam) at his own expense, but before long the tranquil place becomes the theatre of “surprising phenomena” (p. 3). The lighting system is only a pretext for conducting a large-scale, physiological-psychological experiment intended to study the effect of oxygen on the human mind and body, using the town’s inhabitants as research subjects (or rather, as Ox himself phrases it, as research animals). Ox employs electrolysis to decompose water into hydrogen and oxygen and as the air becomes saturated with oxygen, humans become increasingly agitated and excited. The main symptom of the mysterious epidemic affecting the town is that its citizens suddenly enter into vehement political altercations (p. 17). Initially, it is unclear what is causing these “symptoms”, this “infection”, this “epidemic”, this general “inflammation”, this “mysterious intoxication”¹³ until, in the factory of Dr. Ox, oxygen and hydrogen are mixed by accident, resulting in a major explosion. Composer Jacques Offenbach turned the story into an opera (*Le docteur Ox*) in three acts in 1877, and a second opera, based on the same story and entitled *Doctor Ox’s Experiment*, was composed by Gavin Bryars and performed in 1998.

The first chapters of the story are dominated by the discourse of the Master. The Burgomaster is described as a quiet, moderate, apathetic, indifferent person who

¹² “[Stockmann] talks about the baths, but it’s a revolution he is after” (p. 350).

¹³ “Quel Édipe aurait pu répondre à toutes ces insoluble questions” (p. 57).

hardly ever comes to a decision, a kind of stoic sage (S_1), governing an off-grid polis of moderate size. It is a stagnant version of this discourse, which seems to have come to a complete standstill. Precisely for this reason, Ox considers the town a perfect theatre for his experiment. Dr. Ox gives voice to a completely different kind of logic, namely university discourse, which destabilises and subverts the discourse of the Master. The structural core of this discourse is the experimental design. In fact, Dr. Ox conducts two experiments: a chemical (manifest) and a physiological (obfuscated) one. The manifest experiment is an instance of applied nineteenth-century engineering and concerns the use of oxygen for lightning, but the *real* experiment is of a physiological and psychic nature. Lacan's scheme for this type of discourse has been discussed already:

| | |
|-------|------|
| S_2 | a |
| S_1 | $\$$ |

Dr. Ox represents the scientific “agent” (S_2 in the upper-left position) absorbed by his object a (or “object o ”, as it is something translated in English) namely *oxygen*, a volatile and toxic substance, from which his surname “Ox” is derives of course, while the term “oxyhydric gas” parodies scientific terminology. Oxygen (as an isolated component, O_2) becomes the independent variable of the experiment, manipulated by the experimenter. Initially, Ox opts for a small-scale trial, a pilot study, saturating the air of the town's theatre with oxygen in order to explore the physiological and behavioural effects (the dependent variable as it were, although the level of arousal is not really quantified and measured).¹⁴ Under the sway of oxygen, even the performance of the opera *Les Huguenots* by Meyerbeer (which the audience has witnessed already many times before) has an unexpectedly dramatic impact. The orchestra increasingly hastens its movements and the audience becomes highly agitated, up to the point of losing self-control ($\$$ in the lower-right position), relapsing into a carnivalesque frenzy, as if “all are equal” and things like burgomasters no longer exist (p. 52). This impact cannot be attributed to the music as such. Rather, the audience seems to be “unconsciously” (p. 53) exposed to an unknown stimulus, seems to be inhaling a “stimulating power” (p. 47).

The next step is “to operate on a large scale”, as Ox phrases it, and to conduct the experiment “on the masses” (p. 62). Due to the experimental approach, the town becomes an outdoors laboratory, designed for chemistry-based social engineering. Before long, strange excitement and intoxication seize the citizens, resulting in a kind of epidemic, manifesting itself in symptoms such as increased pulsation, excitation, agitation, political engagement and the like.

¹⁴ Pulsation is measured *before* the beginning of the experiment (“what is the average pulsation you found? Not fifty per minute”, p. 24; “The mean of their pulsations remained as it was of old, from fifty to fifty-two per minute”, p. 56; “And have you analysed the air of this town, master? ... Seventy-nine parts of azote and twenty-one of oxygen, carbonic acid and steam in a variable quantity. These are the ordinary proportions”, p. 25), but no such measurements are reported later in the novel.

Initially, his faithful assistant follows the scientist blindly. In their deliberations, Dr. Ox not only explains his chemical theories, but also his professional ethical views on conducting experiments. The citizens constitute a small sample of humanity, he argues: a sample of research animals in fact,¹⁵ a human herd as it were, and precisely as research animals they cannot be expected to give their voluntary consent. Quite probably, they would object, also because the excitation of their respiratory organs may somewhat “injure their lungs” (p. 24). Therefore, they are subjected to the experiment unknowingly, as perfectly naïve subjects, but this deception, this breach of deontology, this affront to human autonomy is justified in a consequentialist manner, namely by arguing that the experiment is conducted “in the interest of science” (p. 24). More precisely, it will enlighten our understanding of human society as such. It will demonstrate that things like morality, dignity, talents, political commitment and so on are “only a question of molecules” (p. 78), that qualities like virtue, courage, talent, wit and imagination are “only a question of oxygen” (p. 102). In other words, the experiment is inspired by a chemo-centric world-view, a basic philosopheme, a basic truth (S_1 in the lower-left position), namely that our mental superstructure (ethics, politics, national character, etc.) is based on chemistry.

Increasingly, however, the assistant begins to have his doubts ($\$$ in the lower-right position). And when (towards the end of the story) the once so peaceful citizens become increasingly violent, Gédéon regards the whole design as morally questionable. The explosion in the oxygen factory actually results from growing moral tensions, from a deontological crisis as it were, between Ox and his assistant. While the latter pleads for a moratorium, in view of the dramatic impacts of the trial, the former seems more determined than ever to move forward.

Dr. Ox transforms society into a laboratory, and the lighting initiative (i.e. the intrusion of nineteenth-century technology in a provincial, pre-revolutionary, off grid ambiance) is merely a first step. The ultimate objective is to “reform the world” (p. 25). According to Lacan, the ultimate exemplification of this type of political philosophy is the Soviet Union, a society which is completely under the sway of university discourse¹⁶: a society designed by political engineers.¹⁷ Ox transforms the provincial town into a miniature socialist republic. There is a clear connection between *lightening* and *enlightening* the town, and Ox is not really an impassive researcher (S_2), but rather spurred on by a political ideology (S_1), a basic view on

¹⁵Dr. Ox, we are told, performs his experiments “in anima vili” (p. 21). This signifier refers to the famous dictum *Fiat experimentum in corpori vili* or *anima vili* (perform experiments on inferior bodies, or souls), an adage used by Kant and others and basically meant to justify the use of animal models in scientific research. In other words, treating citizens as *anima vili* means: treating them as research animals.

¹⁶“Ce qui règne dans ce qu’on appelle communément l’Union des républiques socialistes soviétiques, c’est. l’université” (XVII, p. 237).

¹⁷This is reflected in the novel *The Red Star*, written by the prominent Russian communist Alexander Bogdanov (1908/1984), about Martians routinely performing blood transfusions to increase productivity and life expectancy of the human workforce. The author himself died in 1928, after a foundering transfusion experiment (Groys and Hagemester 2005).

human existence, seeing human society as makeable and modifiable in a fundamental way. The morality of the Master, emphasising the importance of harmony, quietude, equanimity, temperance, etc., has thus been replaced by a different regime, exemplified by “agitated altercations” about politics. Even the Burgomaster himself (whose town-hall had always been silent as a convent, a “temple of silence” until now) becomes a prolific administrator overnight, a bureaucrat, making “twenty decisions a day” and actively enforcing the regulations of his administration. In other words, the Master (S_1) has given way to the bureaucrat (S_2) in the position of the agent. It is only by climbing a high tower, by achieving sufficient verticality, that the Burgomaster can temporarily escape the influence of oxygen and give in to the poetic-meditative quietude of a stylite sage ($S_2 \rightarrow S_1$, p. 87).

Initially, the discursive dynamics of the story is a subversion of the discourse of the Master by university discourse, which entails a quarter-turn to the left. Although initially the burgomaster seems to function as an autocrat, with Ox in the role of recipient of the assignment, before long Ox himself usurps the position of the agent, relying on technicity (oxygen production) to do the job. Yet there is a growing tension between his chemical (manifest, legitimate) and his physiological (latent, unwarranted) experiment, between Ox-the-professional-scientist and Ox-the-impostor. In Verne’s story, this tension results in a moral crisis, giving rise to an archetypal explosion, for according to Bachelard (1947), who builds on Jung, the explosion is the archetype, the typical image associated with chemistry as a research practice: that which makes chemistry both fascinating and disconcerting. And this explosion symbolises the implosion of university discourse, disrupted by inherent tensions. The final act, in the wake of the spectacular explosion, is the denouement phase of catharsis and reflection (of individuation if you will), which calls for a different type of discourse.

A psychoanalytic rereading entails a shift to the “discourse of the analyst”, another quarter-turn to the left. Now the toxic, infectious “object *a*” itself (i.e. oxygen) occupies the position of the agent. It now becomes visible how Oxygen (the object), rather than Dr. Ox (the subject) assumes agency in Verne’s story. Oxygen is not at all a normalised, domesticated, neutralised chemical compound. Quite the contrary, it is a toxic, infectious “substance”, volatile, intractable and dangerous. First and foremost, Dr. Ox *himself* is infected and agitated by his object *a*. He is oxygen’s primary victim as it were. He becomes intoxicated with a lust for power. For oxygen not only brings him fame, but also allows for social engineering. The process of oxidation will affect society at large and Ox’s mechanical valves (which allow him to determine the oxygen level) may become instruments of social manipulation. In view of this alluring prospect which triggers his will to power, Dr. Ox himself becomes destabilised: a divided subject, as a result of his exposure to the object *a* ($\$$ in the upper-right position). His desire to know (*cupido sciendi*) is driven by a will to power. His scientific expertise is sacrificed to this development, so that instead of a responsible scientist, Ox becomes an impostor. The oxygen experiment reflects a political ideology and is meant to contribute to the advent of a world-view based on social engineering (S_1 as by-product, lower-right position).

Various instances of misconduct (as by-product of university discourse) can be detected in the novel, first of all the element of deception. The lightening project is a pretext, a façade as we have seen. The real experiment is conducted secretly. In order to be able to realise his design, Ox deceives not only the town officials (the burgomaster and his staff), but also the citizens, who are used as involuntary research subjects. This is at odds with the principle of informed consent, and exposes these subjects to physical and psychic risks. Rather than addressing misconduct from a university discourse perspective, however, a psychoanalytic rereading brings the whole power-knowledge constellation into view. In the case of Ox, science becomes instrumentalised by bio-power, treating naïve citizens as human resources who are mobilised for progress and whose level of excitation can be technologically adapted to the circumstances. Ox's experiment is an exercise in what Jünger and Heidegger refer to as *Mobilmachung*, and mobilisation is one of the core motifs in Verne's oeuvre, as Peter Sloterdijk has argued, who regards the motto of Captain Nemo (the prototypical engineer and creator of a floating, utopian society): *mobilis in mobile*, the basic formula ("Epoche-formel", Sloterdijk 1999, p. 895) of the modern era as such. Ox's basic objective is not to enlighten, but to set in motion. The provincial town must become connected with the modern technological grid (Heidegger's *Gestell*). The deontology of research ethics is sacrificed to a technocratic telos: increasing the pace, the pulsation, not only of individuals, but of society at large. Ox apparently intends to transform a tranquil city into a "hospital" (p. 52) whose inhabitants are put under constant surveillance. Emancipation entails mobilisation and exploitation, as is indicated by Verne when he describes how, under the influence of the epidemic, even the plants increase their pace of growth: "Les plants elles-mêmes s'émancipaient" (p. 59).

In contrast to Doctor Stockmann, who discovers the *presence* of dangerous infusoria in water, Doctor Ox rather discloses a *lack* of oxygen in air. In both cases, science reveals an invisible deficit. The object *a* fills a gap: as the invisible agent which causes the mysterious contamination (Stockmann) or as an invisible substance that determines (enhances) air quality. In the case of Dr. Ox, the "object *a*" enables air conditioning on a collective scale, and air conditioning opens up the possibility of social engineering. The structural congruence between *The Experiment of Dr. Ox* by Verne and *Enemy of the People* by his contemporary Ibsen is that in both cases *university discourse* (with its technical terms: oxyhydric gas, infusoria, etc.) is brought into play in order to contest the dominance of the *discourse of the Master*. Through this contestation, the basic discursive structure takes a quarter-turn to the right. Initially, the scientific subject seems able to maintain himself in confrontation with the object (*a*), but gradually the focus of attention shifts to disruptive symptoms (§ in the lower-right position), indicating that the scientific subject himself (allegedly in control) becomes increasingly entangled in the tensions that are opened up by his discoveries, resulting in a conflict (a division) between the scientific impassivity of university discourse and the hysteric's desire to confront the authorities, the establishment, the father figures, the status quo. In other words, both documents reflect a relapse into the discourse of the hysteric, which inevitably collapses in the end, in the form of a dramatic debacle: the public fiasco in the case of

Doctor Stockmann, the archetypal explosion in the case of Doctor Ox. And this point to the risks involved in the Promethean desire to enlighten the world through technicity and research. In the case of Dr. Stockmann and Dr. Ox, the disruption unfolds on a local scale, but in the twentieth century, the dramas of science will assume global, planetary proportions.

These questions are also central in the next chapter (Chap. 4), taking us right into the heart of the twentieth century (the heart of darkness), namely the case history of Robert Oppenheimer. After two science comedies (*An enemy of the people* and *Doctor Ox*), the Oppenheimer case rather represents a modern version of ancient tragedy, as we will see. After exploring the case with the help of a famous Oppenheimer biography (entitled *American Prometheus*) we will use a novel, namely *The man who would be God*, published by Haakon Chevalier in 1959, as an oblique window into the case.

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