

CONTROVERSY

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A Tale of Two Natures: Worried Reflections on the Study of Literature and Culture in an Age of Neuroscience and Neo-Darwinism

1. New Day Rising

Bliss was it in that dawn to be alive,
But to be young was very heaven! O times,
In which the meagre, stale, forbidding ways
Of custom, law, and statute, took at once
The attraction of a country in romance!
When Reason seemed the most to assert her rights,
When most intent on making of herself
A prime enchantress – to assist the work,
Which then was going forward in her name!
(Wordsworth 1850, 401)

What wouldn't we give for a paradigm shift! A scholar's life, like everyone else's, is valued by its lasting influence on future generations. Those who earn their living by reading and writing yearn for this kind of impact perhaps even more strongly than the members of other professions and creeds. Having learned to distrust the utility of our work, we secretly hope to shape the world in more basic ways than those who act upon it directly. We may not be able to cure diseases or launch missiles, but can we not bring about revolutions in the universe of knowledge itself? We can make people see things they never saw before, not because those things were invisible without the proper instruments, but because they were *inconceivable* until we introduced them to human thought!

Or can we? If the humanist enthusiasm for paradigm shifts expresses a desire not only for knowledge but also for legitimacy, our most revolutionary concepts may well prove to be misconceived. The dizzying array of ›turns‹ in literary and cultural studies over the last three or four decades, with each new contribution posing as the catastrophic shake-up of an entire field, should give us reason to pause. Strikingly, we understand how unlikely these pretensions are when we encounter them in others, and yet we're all players in the same game. In humanist

scholarship, to confront an approach not one's own usually means to engage in polemics, trying to establish the fundamental authority of one's own chosen theory and method. What wouldn't we give for a *real* – a final – paradigm shift! Such seems to be the subliminal chorus behind the cacophony of current theoretical debates. As I will argue, this may not be inevitable, but it points to a defining feature of humanist knowledge: its concern not with facts but with meaning.

That humanist knowledge is about meaning, and not just facts, is a truism. Like all truisms, it can be challenged on a number of counts: as a false dichotomy, as an obsolete epistemological model, as an excuse for sloppiness. Like all truisms, too, it refuses to go away. From the classical dualism of *physis* and *nomos* to Kant's ›strife of the faculties‹, from Dilthey's distinction between scientific *explanation* and historical *understanding* to C. P. Snow's troubled identification of ›two cultures‹ of knowledge, human beings have struggled with the conflicting epistemological demands of their physical and mental existence. In the twentieth century, almost every other generation of scholars has restated this time-honored problem in fresh terms, always hoping anew to bridge the gap and to unify the warring branches of learning. Thus, we have seen a long row of isms come and go. Social Darwinism, positivism, behaviorism, structuralism, etc., all had their day, promising that the final frontier is just within reach and that some ›third‹ alternative is available at last to eliminate the binary opposition of fact and meaning. What has remained is exactly this opposition and the desire to eliminate it.

Not surprisingly, then, after decades of emphasis on the special status of humanist scholarship, including its essential remoteness from scientific research and empirical method, a counter-movement has again emerged, claiming that culture – and thus, literature – can be understood by recourse to naturalist explanation after all. This time, however, there seems to be more at work than the predictable business cycle of the intellectual marketplace. At least for those involved, the longing for the privilege to live in interesting times appears to play a role as well – as does a far-reaching disillusionment with ›Theory‹. Throughout the 1990s and early 2000s, a growing number of scholars, including some former advocates of dated avant-garde theories such as deconstruction, have articulated their uneasiness about the poor standards of reasoning in the wake of poststructuralist critical excesses. There is a widespread feeling in the humanities today that Theory with a capital ›T‹ – i.e. Theory as »an institutionalized belief system claiming total explanatory force« (Patai/Corral 2005, 23) – has outlived its iconoclastic attraction and usefulness. Understandably, then, not only traditionalists and aestheticists are demanding a principled return to »a theory always of *something* (not everything), requiring argument and evidence« (ibid.).

In this manner, the perennial humanist desire for radical change has recently entered into peculiar union with a scientific *rappel à l'ordre*. The bliss of participating in a revolution that can give a scholarly life – and entire disciplines – legit-

imacy now promises to be felt within some of the most sober fields of human inquiry. As if they were emerging from some dark age of superstition and idolatry, and as if they never felt like this before, the humanities have rediscovered the sciences as their secretly coveted other. Two scientific models in particular are attractive to the crisis-ridden humanists of the early twenty-first century: the cognitive sciences (encompassing both neurological and linguistic research) and evolutionary theory (especially in its anthropological and psychological variants). Under headings such as *cognitive poetics*, *bio-poetics*, *literary Darwinism*, *empirical literary research*, etc., scholarly adaptations of – or to? – Darwinist and neurological concepts thus promise to fundamentally reorient the study of literature and culture. Even composed philologists, usually not taken in by sweeping prophecies, have begun to wonder if the much strained idea of a paradigm shift might not be appropriate in this case after all (Jannidis 2004b, 157): evolution as revolution.

Yet rejecting the unprincipled relativism of postmodern thought is one thing; revolutionizing our understanding of literature and culture is quite another. The present essay will survey the field of neo-naturalist approaches in order to assess their usefulness for cultural studies. For this purpose, I will treat cognitive and evolutionary approaches as a relatively coherent movement, despite their obvious dissimilarities in scope and outlook. I feel justified in doing so because cognitive poetics and literary Darwinism, together with numerous spin-offs and hybrid sub-fields, share basic aims and concerns. Thus, their promises are comparable as well. By way of introduction, three such promises can be identified: a return to method, a return to literature, and – crucially – a return to fundamental questions about the status of literature among human activities.

The first of these promises may well prove to be the most lasting. It certainly is the one most urgently needed. Even leading advocates of Theory are ready to acknowledge that contemporary humanist research is jargon-ridden to the point of obscurantism, *especially* in departments of language and literature. By contrast, neo-naturalist approaches almost instinctively stress the standards of what in German is called *Wissenschaftlichkeit*, i.e. transparent terminology, verifiability of claims, self-reflexivity about instruments and aims, coherence in argumentation, precision and economy in expression, appropriateness of methods to chosen object. These standards are not exclusively scientific in origin – in fact, the German word *Wissenschaft* includes both science and scholarship – but humanist research has recently tended to disavow its share in methodological reason. In this situation, neo-naturalism promises to substitute »evidence and argument« (Patai/Corral 2005, 23) for speculation and proclamation.

Closely connected to this claim is the second promise of neo-naturalism. While the study of literature has been vitalized in countless ways by culturalist approaches such as postcolonial criticism and the New Historicism, the rigid institutionalization of these and similar theories has produced whole generations of students who are better trained in ideological righteousness than in textual

analysis. A typical complaint about the state of affairs in literary education is that secondary literature has become primary – and that poems, novels, and plays are read, if they are read at all, not for their significance *as* poems, novels, and plays, but in order to prove or disprove some political stance. We can bracket the extensive debates about literary value and aesthetic education that are connected to these issues, and still find it troublesome when today's graduate students can hold forth on subaltern subversion but are unable to tell a metaphor from a metonymy, or iambs from trochees. Edward Said, certainly no proponent of apolitical criticism, thought it necessary to remind us in this situation that close reading – by which he meant »a detailed, patient scrutiny of and a lifelong attentiveness to the words and rhetorics by which language is used by human beings who exist in time« – is »the indispensable act, the initial gesture without which any philology is simply impossible« (2004, 61, 60). Similarly, Tzvetan Todorov, arguing against deconstruction, has insisted that the much ridiculed question »what does the text mean?« is in fact among the most relevant questions in literary analysis, »and we shall always have to try to answer it, without excluding any contexts, historical, structural, or other, that might help us in the task« (1984, 59).

Neo-naturalism promises to contribute to this work by returning us to an understanding of literature as craft, i.e. as something *made* within a regulated field of possibilities rather than something completely self-generated and self-consuming. Peter Stockwell, drawing on the pioneering work of Reuven Tsur (1977, 1992), writes that with the assistance of cognitive poetics »we can engage in detailed and precise textual analysis of style and literary craft« (2002, 4). Now it's not as if we were unable to do this kind of thing before cognitive poetics came along – the point is that literary professionals have widely *stopped* doing it. And indeed, when Stockwell tells his readers that the new ›field‹ he is trying to establish is concerned with »metaphor, conceptual structures and issues of reference« (ibid., 9), and when these concerns are then treated in discussions of *foregrounding* and *deviation* and other staples from the formalist lexicon, a *déjà vu* can hardly be avoided. This is not necessarily a bad thing, because if there is something sadly lacking in literary and cultural studies today it is formalist expertise. The fact remains, however, that deviation stylistics has been part of literary scholarship for quite some time now. And judging from the analytical examples collected in volumes like *Cognitive Poetics in Practice* (Gavins/Steen 2003), the already well-established operative force of concepts such as *defamiliarization*, *over-determination*, *focalization*, etc. is not dramatically increased by giving them a neuroscientific face-lift. As I will show below, in terms of actual textual analysis there is little accomplished by cognitive poetics that could not be accomplished with more traditional formalist or narratological tools as well.

But neo-naturalism formulates a new and entirely original justification for formalist stylistics. Cognitive poetics, literary Darwinism, and their many subsi-

diaries claim to illuminate »the conditions and functions that make possible or even force into existence something like literature in the first place« (Zymner/Engel 2004, 7).¹ This is the third and most challenging promise of neo-naturalism: its recognition that human culture depends, in ways still to be clarified, on the prior existence of human bodies with basic biological needs and capacities. According to this position, studying literature always means studying *more* than literature: it means studying what most advocates of this approach confidently call ›human nature‹. Thus, there is a firm belief in the biological *foundation* of culture, and this belief finds expression in a widespread neo-naturalist fondness for zoomorphic titles. Typical publications in this vein are called: *The Naked Ape* (Morris), *Homo Aestheticus* (Dissanayake), *Animal Poeta* (Eibl), *The Symbolic Species* (Deacon), *The Moral Animal* (Wright), *The Literary Animal* (Gottschall/Wilson), *The Literary Mind* (Turner), or *Madame Bovary's Ovaries* (Barash/Barash). A more elemental justification for the study of literature can hardly be imagined. And indeed, when neo-naturalists describe the kind of work they are doing, they tend to employ a rhetoric of fundamental grounding: We are told that since there can be no literature without human bodies and human brains it follows that scientific research into bodies and brains lays the groundwork of – and provides a methodological model for – research into all complex cultural products, from prehistoric cave paintings to James Joyce's *Ulysses*.

›Think big‹ thus seems to be the motto of this latest ›turn‹ in humanist scholarship. As Stockwell explains: »We have to start by aiming to answer the big questions and issues that have concerned literary studies for generations« (2002, 6). For starters, that's quite a lot – especially considering that neo-naturalism defines itself against »the careerist pattern in literary theory [...] to reduce all artistic value to a single essential set of factors« (Dutton 2005, 260). Philologists of a more traditional bend might agree with this agenda but find it disagreeable to *start* with the big questions, rather than to diligently work their way up to them. And how about those of us who have studied cultural theory in a more than merely polemical fashion, and who are hoping to profit *as* students of culture from the promised return to method and to literature? Is it only defensiveness when, after reading the foundational texts of the new movement, we begin to suspect that cognitive poetics and literary Darwinism are more limited in their understanding of *Wissenschaftlichkeit* than appears at first glance? Something seems to be amiss. It has to do with the neo-naturalist claim of establishing literary and cultural scholarship as a *science*.

¹ All translations from the German are mine.

2. We're All Scientists Now

If [...] not only human nature but its outermost literary productions can be solidly connected to biological roots, it will be one of the great events of intellectual history. *Science and the humanities united!*
(Wilson 2005, vii)

Modesty has never been a hallmark of revolutions. Still, in terms of self-confidence the neo-naturalist »turn« in literary studies is extraordinary. Philosopher Dennis Dutton, the influential editor of the *Arts and Letters Daily* website, asserts: »For aesthetics and literary theory, the future begins here« (2005, 264). Dutton's stress on innovation is typical of a rhetoric that combines excitement about »new analytic horizons« (Crews 2005, xiii) with a subtle warning not to miss *this* train. Colonial imagery is rampant in neo-naturalist writing, as in Stockwell's promise of »rapid access to the frontier of exploration« (2002, 166) or in Edward O. Wilson's comparison of literary Darwinists with Columbian explorers, launching »on an uncertain sea«: »Who will gamble against them? If there is any chance of success, who with any courage and ambition would not want to join them – or at least lend support?« (2005, viii).

Much of this adventurous self-assurance rests on the Galileian self-image of neo-naturalist scholars. More often than not, they present themselves as courageous speakers of truth against received ideas and entrenched interests. They can afford this kind of stance because they feel vindicated by the laws of nature itself. Cognitive poetics, Peter Stockwell notes, presents »a scientific account of literature«, a »systematic and principled way of discussing these matters«, »unified and consistent« (2002, 136, 91, 96). These terms – *systematic, principled, unified, consistent*, etc. – are repeated continually in neo-naturalist scholarship, and before we determine if these terms are actually confirmed by the analytical work done in the field, we can note that they express an elemental *desire* for systematic, principled, unified, and consistent knowledge. Scholarship, of course, does not become systematic and principled just by calling itself systematic and principled, but we can perceive its self-understanding and its aspirations in such pronouncements.

Later in this essay, I will argue that the neo-naturalist image of principled scholarship often reduces the standards of *Wissenschaftlichkeit* to a scientific understanding of the term. Neo-naturalists really see themselves as literary *scientists*, producing results with the same sort of empirical validity that is assigned to statements in physics or biology. In his introduction to *The Literary Animal*, David Sloan Wilson (no relation to Edward O.), after describing himself as »a novelist trapped inside the body of a scientist«, muses about his »hard won-results« as a biologist: »combined with those of others [...] they] became something magnificent that cannot be found in literature – a body of knowledge upon

which all reasonable people must agree« (2005, xxi). Exactly this kind of imperative certainty is the ambition of literary neo-naturalism.

Considering the enthusiasm with which neo-naturalists talk about the potential and achievements of their approach, it is easy to recognize in these statements the »hyperventilating rhetoric of innovation« (Metzger 2001, 92) that accompanied the popular reception of various breakthroughs in the so-called »life sciences« throughout the 1990s.² Whatever else their merits, cognitive poetics and literary Darwinism allow humanists to participate in the »exciting new knowledge« that is touted in the public media. These new fields of study thus offer an immediately convincing answer to the humanist question of legitimacy. Joseph Carroll, for example, an expert on Matthew Arnold and Wallace Stevens, reports: »Darwinian psychology provides a scientifically grounded and systematic account of human nature. This is the first time in our intellectual history that we have had such a theory« (2005, 103).

But accepting this – at least in the emphatic, unconditional sense that Carroll proposes – means also accepting the terms and conditions on which Darwinists and neuroscientists measure disciplinary legitimacy. Not surprisingly, most of them have nothing good to say about the current state of humanist knowledge. Especially in the United States, popularizers such as Edward O. Wilson and Steven Pinker use their writings on scientific debates to comment on research agendas in literary and cultural studies as well – usually to dismiss those agendas as confused and irrelevant.³ Such dismissals of entire fields have recently been confirmed and taken up by literary scholars. Jonathan Gottschall, co-editor of *The Literary Animal*, means to strike at the heart of traditional literary scholarship as a legitimate form of academic inquiry, when he writes:

[F]ew literary scholars would be prepared to defend the notion that we now understand the ultimate functions of literary works, the persistence of archetypal themes, or the interpretation of individual works more definitively than 25, 250, or 2,500 years ago [...] [H]umanists [...] have rarely managed to produce knowledge that can withstand the critiques of the next generation [...]. [T]here is little accumulation of knowledge in literary studies, the line of work runs from generation to generation in continuous circles, bending to intellectual fashions and the rhetoric of powerful personalities. (Gottschall 2005, 219)

² See Metzger's analysis of the way Germany's *Frankfurter Allgemeine Zeitung* (FAZ) covered Craig Venter's discovery of the so-called »code of life«. The FAZ is a favorite daily paper of German academics, and its almost mythological representation of DNA research has contributed greatly to the vogue of the »life sciences« among German humanists. In 2000, the FAZ published an article by Venter under the headline: »The Day Will Come: The Total Knowledge of All Processes of Life Is Imminent This Year« (Metzger 2001, 95).

³ As mathematician Gabriel Stolzenberg has noted in the context of the so-called »sokal Hoax, most of these attacks on literary and cultural theory follow the pattern of »hostile misreadings«: »people hunt for nonsense in statements of authors suspected of being partial to it and, when they find what looks like it, they consider themselves done. Yet had they hunted instead, or in addition, for more generous interpretations, they almost surely would have found them, as I did« (2001, 34).

I am at this point not concerned with the question of whether this statement is even true or not. In passing I will only point out that Gottschall's provocation hinges on the assumption that literary works (and by extension all cultural artifacts) are essentially natural objects, and that they can be researched just like natural objects, i.e. in a progressive collaborative program of empirical clarification. I am tempted to say: If things were that easy, chances are we *would have* accumulated consensual knowledge about »the ultimate functions« of literature by now, despite the powers of rhetoric, fashion, and personality. However, our inability to produce timeless knowledge may have something to do with the kind of objects we are confronted with in the study of literature and culture. This is not to imply that *no* sense can be made of literary texts or historical events (and even less so that any meaning whatsoever can be attributed to them). It only implies that there is a nontrivial difference between human artifacts and natural objects, between knowledge of history and knowledge of evolution. I shall return to this issue.

At this point, let me raise a more obvious question. Neo-naturalist approaches to literature frequently stress their practicality; they tend to present themselves as methodologically *applied* forms of research. For good reasons, then, they are skeptical of speculative scholarship in the poststructuralist mode. As Stockwell explains, »cognitive poetics embodies the principle of application. It is under application [...] that approaches are tested and achieve any sort of value« (2002, 166). How about it, then? Are the scientific aspirations of neo-naturalist approaches borne out by the work that is being done in these fields? If literary criticism today is really ruled by intellectual confusion, unprincipled guesswork, ideological dissensions, subjective vanities and the like, what are the *results* of neo-naturalist readings that can mend this sorry state of affairs?

3. The Proof of the Pudding

A metaphor is a breath of fresh air
 A turn-on, an aphrodisiac
 Chicks dig dig (d.i.g) dig dig metaphors!
 Chicks dig dig (d.i.g) dig dig metaphors!
 Chicks dig dig (d.i.g) dig dig metaphors!
 Use them wisely, use them well
 And you'll never know the hell
 Of loneliness
 (Sparks, »Metaphor«)

Stockwell holds that cognitive poetics, once established as the new philological paradigm, will bring about »not simply a shift in emphasis but a radical re-evaluation of the whole process of literary activity« (2002, 5). With predictions such as

these, you'd better deliver. In order to do so, neo-naturalists and advocates of an »empirical« literary scholarship such as Willie van Peer in Germany put their trust in the fact-yielding force of proper method. In a typical study in this vein, Daniel J. Kruger, Maryanne Fisher, and Ian Jobling have sampled descriptive passages of male protagonists from four British romantic novels and then interviewed »257 ethnically and religiously diverse female introductory psychology students at a large Midwestern American university« about these excerpts (2005, 232). In commenting on their method, they write: »Because literary researchers are generally not trained in scientific methods and will continue not to be in the foreseeable future, it will be necessary for the time being for them to form partnerships with behavioral and social scientists (or to learn such methods themselves)« (ibid., 225). The patronizing tone of such advice is not uncharacteristic of empirical literary scholarship. Nor are the results of Kruger, Fisher, and Jobling:

The results of this experiment support our hypothesis that the dark hero and proper hero in British Romantic literature in the late eighteenth and nineteenth centuries respectively represent cad and dad mating strategies [...]. Women preferred proper hero »dads«, who may be more likely to provide reliable support, for long-term relationships. However, the shorter the relationship in question, the more likely women were to choose dark hero »cads.« (ibid., 237)

The future of aesthetics and literary theory begins *here*? If it is a mark of *Wissenschaftlichkeit* that methodological effort and eventual findings stand in a balanced relationship, then the scholarly value of results such as these – i.e. their contribution to our understanding of eighteenth-century British romances and their protagonists – is at least debatable. Judged by their ambition, neo-naturalist approaches yield results that are often bizarrely out of proportion with the complexities of their method. Mark Turner, in his otherwise groundbreaking book *The Literary Mind*, proves particularly weak when it comes to Todorov's question of »what does the text mean?«. (In the case of Turner, there are good reasons for this, which have to do with the disciplinary aims and scope of his work, as I will argue below.) »Results« such as the following abound: »Browning takes advantage of [the] possibility to personify the wind«; »As long as we think grimly about the event of death and its cause, we must take a grim view of Death-the-Reaper« (1996, 31, 79). These insights are really presented as results, i.e. as target points of argumentation. *The Literary Mind* has set a pattern here that is repeated, more disturbingly, by numerous literary scholars proper who try to put to practice the cognitive model provided by Turner. It works just as well with Browning as it does with popular culture: »Passion as a natural force may be discerned in the hit song »Light my fire« by the Doors [...]. The need for another person as an addiction is expressed by Brian Ferry's »Love is the drug« (Steen 2003, 71). And about George Crabbe's »A Marriage Ring: »This poem cannot be understood without resorting to the love scenario« (ibid., 72) – or without the ability to speak English, or the ability to read, we may want to add.

If such hard-won findings are probably of little interest to most current scholars of culture, no matter whether they are studying George Crabbe or Roxy Music, this has nothing to do with their measure of truth. Turner and Steen are obviously right. But *within* the established disciplines concerned with historical, cultural artifacts, they are often also trivial. Many neo-naturalists would be the first to acknowledge this, for their aim is precisely not to contribute to humanist knowledge in its established forms. Rather, their aim is to ›ground‹ or ›root‹ this knowledge in ›our biological heritage‹ (favorite terms in the neo-naturalist lexicon). Again, there is nothing inherently wrong with this, and no one would deny that without human bodies and human brains, there can be no literature. But what is banal from the perspective of cultural studies, and a self-evident departure for further inquiry, is regarded by many neo-naturalists as the ultimate and satisfying *answer* to the question of cultural meaning. A ruling, if sometimes denied, assumption in neo-naturalist scholarship is that literature is *explained* by clarifying its natural – mostly evolutionary or cognitive – conditions of possibility; and those conditions, as David Sloan Wilson points out, are the same for literature as ›for spots on guppies‹ (2005, xxv).

No doubt this perspective generates verifiable knowledge, such as the fact that literature is always written and read by human beings. But how far does this insight into ›species literature‹ (possibly the successor to an equally problematic ›world literature‹) really go for those of us who want to research the many conflicting ways in which human beings and cultures have struggled with and reflected on their natural needs and limitations throughout history? I suggest: not very far, at least in its current neo-naturalist variety. For despite the claim that the new paradigm returns our scholarly interest to literature proper, neo-naturalist approaches treat literary works or other cultural artifacts almost invariably in an instrumental fashion. David Sloan Wilson and Jonathan Gottschall are very open about this, when they describe literature as »a vast, cheap, and virtually inexhaustible argosy of information about human nature [...]. [L]iterary data can be mined as a precious trove of information for the scientific study of human behavior, psychology, cognition, and culture« (2005, 197). Certainly so – and more power to those who undertake this kind of study – but it doesn't even begin to account for the historical meanings of diverse literatures and cultures, let alone individual literary works.

In sum, then, tracing back literature or other artifacts to the barest human essentials is not false, but it fails to acknowledge the kind of cultural questions that we pose to those artifacts and that are raised by their existence. I feel this view is justified because most neo-naturalist readings I have seen are based on a strikingly impoverished view of literature. This is to say that to many neo-naturalists it does not seem to matter which work or genre from which period or in which language they are studying, or if they are studying literature at all, as opposed to eating habits or guppy spots, because their results would not differ significantly

if they changed their object of study. About his scholarly – or rather: scientific – interest in Shakespeare, David Sloan Wilson notes: »if we ask what themes would most interest a nonhuman primate, those are the themes that are most prominently featured in Shakespeare and indeed all literature« (2005, 29). This is probably true, but what have we understood about Shakespeare, what about Elizabethan culture, when we see this? Yes, grown-up people are constantly looking for sexual partners, or for tasty food, or for agreeable climates, but strictly speaking, we don't have to read Shakespeare to learn all this.

It is quite symptomatic, therefore, when in Turner's *The Literary Mind* we find a chapter heading that reads: »Homer, Dante, Bunyan, Sacks, Saint John of the Cross, Proust, Pound« (1996, 44). What follows are two pages on imaginary journeys, and I venture to say that our understanding of those authors, their works, their historical realities, indeed their imaginary journeys is little enhanced by this discussion. Joseph Carroll explicitly admits to this arbitrariness of object choice when he introduces his study of Jane Austen's *Pride and Prejudice* as follows:

Let me emphasize that this choice of an illustrative text is in one sense arbitrary. Any work of literature, from any period or genre, could be chosen for illustrative purposes [...]. There is no work of literature written anywhere in the world, at any time, by any author, that is outside the scope of a Darwinian analysis [...]. Geneticists have often found fruit flies a convenient species for their experiments. But they do not believe or suggest that genetics applies only to fruit flies [...]. I consider [*Pride and Prejudice*] the literary equivalent of a fruit fly. (Carroll 2005, 78f.)

My objection is not that the Darwinist reader profanes the supposed sacredness or authenticity of literary works. Nor even that literary Darwinism *reduces* literature to something else, for any academic way of knowing a literary text is in this sense »reductive«. My first objection is simply that neo-naturalist approaches tend to misconstrue the status and function of literary works in their social and cultural worlds, by treating them essentially as natural phenomena. In doing so, neo-naturalists fail to recognize that *Wissenschaftlichkeit* in literary studies is not restricted to scientific methods. There are well-established ways of asking and answering non-scientific questions about history and culture, as I will presently show.

My second objection is more instinctive, but therefore also more distressed. Carroll boldly situates his study of *Pride and Prejudice* against earlier (»traditional«) readings of the novel. He has no patience with them. Pre-Darwinist criticism of Austen is »impressionistic, opportunistic, and adventitious; it seeks no systematic reduction to simple principles«. The worst of the bunch, predictably, are the postmodern readings, which Carroll describes as »painfully inadequate«; they »entail false ideas about human nature« and offer »distorted, skewed, and strained accounts« (2005, 102). He who makes such claims had better come up with something good himself. Here is the result of Carroll's own analysis: »Mate selection is the central behavioral system activated in this novel« (2005, 98).

I dare not to disagree. But have we understood anything important about Austen's novel now? Carroll would probably say we have. However, the fact remains that his reading of the famous opening sentences of *Pride and Prejudice* ultimately establishes the redundancy of reading on. According to Carroll's article, unflinchingly titled »Human Nature and Literary Meaning« and containing a one-page »Diagram of Human Nature«, we don't have to read more than the first two sentences of Austen's novel to recognize its fundamental Darwinist meaning. Something similar happens in David Sloan Wilson's introduction to *The Literary Animal*. In an autobiographical mode quite popular among neo-naturalists, Wilson reflects on »an extended trip to Japan, a culture that is supposed to be very different from our own«. There, he asked his hosts to recommend Japanese novels, short-stories, and plays, which he then purchased (»in English translation«) and read, only to recognize: »The evolutionary themes were everywhere, cultural differences notwithstanding« (2005, xxii). Is this really surprising? Perhaps it is more surprising that it never occurred to Wilson that he might have missed what is most *distinct* about these hand-picked novels, short-stories, and plays. Or that his own anecdote may tell a sad story in its own rights: the story of an American academic who travels all the way to Japan to find only what he already knows. He might as well have stayed home. Which, in a way, he did.

4. The Particular and the Universal

But one will have to perceive a not unessential distance between a chimpanzee handling little cards to articulate the demand, »Give me a banana«, and Kant's *Critique of Pure Reason* [...]. [There are] seamless transitions, but in their final effect they allow and force us to make a categorical distinction between ape and philosopher.
(Eibl 2004, 17)

There is a reason for the neo-naturalist reluctance to study literary texts in their particularity. The reason is a widespread misconception about the way particularity and universality relate in affairs of human history and human culture. This misconception in turn springs from a confusion of human artifacts and natural objects, from a fundamental zoomorphism, probably motivated by the neo-naturalist desire for systematic certainty. Be this as it may, the underlying assumption of much neo-naturalist scholarship is that proper method – in the sense of *Wissenschaftlichkeit* – requires natural objects and therefore has to be modeled on the example of scientific, especially empirical research. Neo-naturalists shy away from interpretive and historical questions because those questions are often not

susceptible to experiential or empirical confirmation. Hence many neo-naturalists falsely regard them as unanswerable: as intuitive and *unwissenschaftlich*.

Peter Stockwell struggles with this problem throughout his admirable book *Cognitive Poetics: An Introduction*. On the one hand, Stockwell insists that literature should not be treated as mere material for linguistic – or any other kind of non-literary – research (2002, 6). On the other hand, he seems to fear that ›traditional‹ text-centered approaches are by necessity unprincipled. Thus he says (almost implying that the ›artificiality‹ of literature is a scholarly deficiency): »Though literature itself is obviously an artifice, literary readings are natural phenomena, and it is this that cognitive poetics sets out to investigate [...]. Cognitive poetics is not the study of texts alone, nor even specifically the study of literary texts; it is the study of literary reading« (2002, 152, 165).

Of course, »a science of reading« (ibid., 2), as imagined by Stockwell, is feasible; it is able to answer the questions it raises. But how interesting – how relevant – are its results? And for whom? Literary scholars engaged in a science of reading risk losing sight of all those problems in their field that *cannot* be answered, or even formulated, in a scientific or empirical manner. For one, they risk a loss of interest in the *distinctiveness* and *historicity* of literature, or of any cultural phenomenon. Craig Hamilton sees this as an advantage: »dividing literary language from everyday language, or literary cognition from everyday cognition, simply creates artificial barriers between literature, the world, and our lives« (2003, 64). I am not exactly sure if this is true, except in the most basic physiological sense, but even if it were, the disciplinary logic of this statement would still be questionable. Neo-naturalists typically seek to justify their conjunction of literary and everyday language as a gesture of democratization. Stockwell, in particular, is insistent on the point that the »majority« of »ordinary readers« reads literature for enjoyment and that their readings should not be confused with the elitist readings of academic professionals (2002, 152). True, but this begs the question: What do we study when we study ›ordinary‹ readings? Should we, as *students* of literature, aspire to become ordinary readers (again?) – or on the contrary seek to educate ourselves and other ordinary readers to have a better informed understanding of literature, to become more competent readers? Is there something wrong with the fact that academic readings (i.e. readings sensitive to textual structures and historical contexts) differ from the readings of ›the majority‹? Would we want to make the same democratizing claims for our knowledge of history, economics, nuclear physics?

Hamilton is so fearful of straying from empirical, supposedly democratic, questions that his farewell to text-centered scholarship rings like an imperative: »we should not ask how texts do what they do but how we do what we do when we read texts« (2003, 64). But the physiology of reading Karl Marx is probably not much different from the physiology of reading Milton Friedman. And no one, as far as I know, has yet found out whether a sonnet by Shakespeare is pro-

cessed differently in human brains than a sonnet by John Berryman. And what would we know if we knew? What would we have learned about, say, Karl May or the vagaries of German imperial dreaming in the late nineteenth century when we had established which cognitive processes are active in our reading of the description of a character such as May's fictional Apache chief Winnetou? Would we have understood something about human perception, maybe even about the workings of the human brain, or would we have understood something about European literary history or pre-fascist German culture? Is there a route from one type of knowledge to the other? What is it? These are sincere, not rhetorical, questions, and from my work and reading experience I find unconvincing answers that tell me, as does Edward O. Wilson, that we have *explained* modernist art, and perhaps even modernity, when we have recognized that »the brain is activated most sharply by abstract patterns with about 20 percent redundancy« which, according to Wilson, happens to be the amount to be found in »much of« abstract art as well (2005, ix).

The fact is that for a *science* of reading, the question of *what* is being read, and *when*, has to be so tightly controlled (in order not to become »unscientific«) that we jeopardize some of the most important modes of knowledge in our fields. What I have termed the arbitrariness of neo-naturalist object-choice can here be called by different names as well: anachronism, a-historicism, anti-hermeneutics. I have no problem with these positions as such; they are often absolutely necessary in order to gain knowledge. But neo-naturalism is committed to anachronistic and anti-hermeneutic methods for the wrong reasons, misapprehending the aims and achievements of historical and hermeneutic scholarship. It is sometimes hard to say how much of this misapprehension is merely due to conceptual confusion and how much of it is due to willful misunderstanding and polemics. The German school of *empirische Literaturwissenschaft* is particularly crafty in dismissing literary hermeneutics, as when Claus-Michael Ort critiques hermeneutics by merely – and faithfully – listing its defining features rather than asking why hermeneutic readings are interested in the questions they are interested in.⁴ In advanced empirical circles, we are made to understand, it goes without saying that one's approach is »no longer« hermeneutic.

As a result, literary empiricists are constantly struggling with what they call »the problem« of literary history. Many wrenching methodological maneuvers are necessary for them to address questions of historical interpretation.⁵ Their ef-

⁴ The six features of literary hermeneutics according to Ort are: 1. fixation on the »individuality« of literary works and on the canon, 2. fixation on authors, 3. understanding seen as »individual« understanding (empathy), 4. interpretation seen as a potentially endless reading of historical contexts, 5. duplication of the work in its interpretation (interpretation as »art«), 6. mythologizing of epistemological predicaments (the »hermeneutical circle«) (1994, 106f.).

⁵ A sensible model of combining literary history and empirical analysis is provided by Moretti (2005), but it is again based on a disavowal of interpretive scholarship.

forts in this vein suggest a misleadingly simple view of the relationship between the particular and the universal. Willie van Peer holds: »Because the particular is contingent, no general insights can grow out of particularistic inquiries«. According to van Peer, then, research into the distinctiveness of individual works, oeuvres, genres, and historical cultures »does not lead to any sort of clear understanding or objective knowledge: [...] *de singularibus non est scientia*« (1994, 176).

At its least objectionable, this position is a polemic against the hermeneutic cult of empathy, and hence against an overtly impressionistic practice of academic reading (which, from the perspective of literary empiricists, reaches its climax in the artful ingenuities of deconstruction). But one can sympathize with van Peer's hostility towards such subjectivism and still reject his idea that particularistic research is by definition subjective. Similarly erroneous is his assumption that the only valid alternative to subjective intuition is objective knowledge. These views are inadequate in the study of cultural artifacts for two reasons. First, they assume that the only methodical way of studying literature is a quasi-scientific way. (This explains why some empiricists do not even expect to gain relevant knowledge of »singular« works.) By force of this assumption, literary empiricists often set up an ontological dichotomy to describe the difference between universal and particular propositions. Whenever this happens, they create what may well be called an ideology of the universal: an ideology of scientism (as opposed to science proper).⁶

Second, this kind of literary scientism is frequently impracticable in analytical terms. If only »general laws and principles« (ibid.) are accepted as *wissenschaftlich*, we will finish our inquiries rather quickly, because unlike scientists proper, we are concerned with the meaning of historical objects and thus with questions of intentionality and determinism, understanding and misunderstanding, conflict and contingency. The question of literary meaning is never simply a matter of fact. Certainly, historical scholarship has profited, and will continue to do so, from empirical research on readers and readings, because this kind of research provides a large framework for identifying possible and even probable interpretations. Cognitive narratology, in particular, has sharpened our awareness of different modes of fictionality and thus has rid us of limiting conceptual dichotomies such as the one between literary characters and living persons (Jannidis 2004a). However, this is where historical scholarship *begins*, not ends. As I will argue in the next section, while literary research must always respect and rely on basic empirical findings, these findings do not constitute the meaning of our objects

⁶ This is not meant as a polemic rejoinder to van Peer's critique of the hermeneutic »ideology of the individual« (ibid.). Rather, the hermeneutic ideology of the individual and the scientist ideology of the universal can be seen as mutually reinforcing mirror images. Van Peer seems to be particularly impressed by deconstructive subjectivism, responding to it with an equally extreme counter-reflection.

of study. In many cases, these findings are trivial, such as van Peer's »first law of literary history« (»st < St+1 < St+2«), which establishes that the absolute number of literary works increases through time (1994, 183). I am not sure if the author is speaking tongue-in-cheek when he asserts that universal propositions like this one require »much toil and patience and a lot of preparation« (ibid., 179). Not only the rhetoric, but also the mode of inquiry in neo-naturalist scholarship suggest otherwise. »It is that simple« is a key sentence in neo-naturalist readings, to be found in countless variations (Fox 2005, 142). Wherever we look, wherever we go: the evolutionary themes are already there (D. Wilson 2005, xxii). This is so because the basics are, well, basic. They are also relatively few. Thus, a universal truth in literary matters is always quickly established, compared to the truly toilsome and taxing requirements of detailed historical research. Perhaps this is why universal propositions are so attractive to many literary scholars who aspire to be scientists.

My point is that a purely empirical or naturalist approach to literary works or other cultural artifacts constitutes an inappropriate method. It is *unwissenschaftlich* in the sense that many of the questions it asks and many of the tools it employs are categorically unsuited for the object. Those questions and tools yield results, but frequently these results do not address the most distinct features of their objects of study. In some cases, the employment of empirical method has no other function than to proclaim or ascertain the scientific legitimacy of the chosen approach. In these cases, we're not collecting appropriate knowledge about a clearly defined object or set of objects, but we're being scientific (»systematic«, »principled«, »coherent« etc.). However, while empirical research and abstract model-building are crucial elements of any kind of scholarly or scientific activity, models and methods always have a serving function: They are tools, not truths. As such, they must be adjusted to their objects and live up to their demands. And if a particular method or model proves unable to explain essential features of an object or to answer certain essential questions about it, we must not declare these questions unscientific, but we must improve or even switch our methods and models.

By contrast, neo-naturalism and literary empiricism have a tendency to close down research on entire areas of knowledge concerning literature and culture. For example, if we really followed Craig Hamilton's injunction not to ask how texts do what they do, but only how we – as human bodies and minds – do what we do when we read those texts, we would probably lose sight of the historical worlds that these texts react and contribute to. As long as we still want to know how a specific culture, at a specific point in its historical development, imagined itself, how it struggled with these and other imaginations, how meaning was made where none was probable, we do well not to look simply at (or into) our own brains, but to make use of them by reading foreign texts. And we will be reading these texts with an interest in how they do the work they do, and who

their intended and actual readers *specifically* were, and what these readers knew and how *they* probably read, and what this means for our reading of these texts.⁷ Cognitive poetics contributes in important ways to these questions (especially as a check on relativistic speculation), but these questions are not destined to remain *unwissenschaftlich* or even unanswerable without cognitive poetics, nor are naturalist methodologies sufficient to answer them.

More concretely: To read *Heart of Darkness* as merely an »argosy of information about human nature« (Gottschall/Wilson 2005, 197), or even as a purely generic adventure tale, divorced from the imperial imagination which gave rise to it and to which it reacts in unforeseen ways, would be impoverishing this novel's universe of meaning – and divesting us of knowledge of a world that is too closely related to our own that we can afford such ignorance. And this is true not only for a few exceptionable works of the canon, but for popular texts as well: A film like *The Matrix* seen outside the contexts of the US-American 1990s does not become more universal, but less specific. Thus, it becomes less differentiated in meaning, less capable of evoking *this* and no other historical moment, when its generic story and its generic images made sense in ways they never did before and overwhelmed its audiences as truthful entertainment.

What we confront here is the perplexing fact that human beings, alone among species, have developed and refined means and possibilities of transcending their natural limitations. This process of culture has emerged within a comparatively short time-span, but it has created a myriad of artificial environments for human life that, while certainly not *unnatural*, can no longer be called natural either. Thus, humankind is the only species on earth that has proven able to actively influence its own evolution by creating a »second« nature in innumerable – frequently conflicting – historical and cultural variations. The »literary animal«, in other words, is not *just* an animal. We can even say: What is surprising and unique, hence distinct, about human beings is not their biological animal nature, but the self-made, post-animal part of their existence that is grafted onto biological givens.

No one among neo-naturalists has written more instructively and more lucidly about the puzzling relationship between humankind's first and second nature than Karl Eibl. In *Animal Poeta* – a book still waiting for its English translation – he posits an orthodox Darwinist continuum from nonhuman primates to homo sapiens. Unlike many scholars in this field, however, Eibl insists that there is a »categorical distinction« between nonhuman primate behavior and cul-

⁷ I find this to be in accordance with Jannidis's »project of a historical narratology«, which tries to reconstruct a so-called »model-reader« as »part of an intentional narrative communication« (2004b, 161 f.).

tural artifacts (see introductory quotation of this section). Furthermore, the diversity of human cultures leads Eibl to question propositions about the supposed universality of art:

By using our own, present language, we form units that are only applicable to *our own* culture. The same is true for many other universals of a higher order [...]. But even if there is no biological concept of art [...] there are universal biological dispositions that make art possible [...]. The biological foundation [...] provides dispositions, but they can be disposed of in many different cultural manners. (Eibl 2004, 278, 319)

I note in passing and repeat that the study of culture(s) cannot afford to neglect the natural conditions of possibility that allow for something like culture in the first place. But the study of culture(s) would do its objects a grave injustice if it regarded them as purely biological. What we study are indeed the »many different *cultural* manners« in which humans have made use of their biological dispositions through *history* – and not just evolution.⁸ In the words of Bernhard Kleeberg and Tilmann Walter: »Man is man's most complex object of study [...]. Every methodological monism must fail in confrontation with this object of study« (2001, 72).

But I am interested in another aspect of Eibl's theory. According to *Animal Poeta*, a defining feature of humans' artificial environments is that this second nature is more complex, more demanding, and more overwhelming than the pleistocene first nature from which it somehow emerged. Culture constantly *overstrains* (überfordert) its members and creators. Therefore, I would add, cultures are constantly forced to make sense of themselves and to repair the damage they do, including cognitive damage. And it's probably only human – in the sense of ›human nature‹ employed by Darwinists – that in times of stress we are attracted to those self-descriptions of culture that reduce culture's complexities to the most harmonious and simple formulas available: to »master narratives«, as Eibl terms them with a surprising nod to Lyotard (2004, 347). What consolation, then, when in the end of Gilles Fauconnier and Mark Turner's field-defining book *The Way We Think*, we can read:

The story of human beings – 50,000 years ago, now, for the infant, the child, the adult, the novice, the expert, for the many different cultures we have developed – is always the same story, with the same operations and principles. This is the story we have tried to tell in this book. (Fauconnier/Turner 2002, 396).

In this manner, a commanding inquiry into ›the mind's hidden complexities‹ finally provides us with a less complicated world: a world where things are understood when we have understood how they originated physically, a world where causality explains existence, and where nature explains culture. This, as Turner

⁸ For a Darwinist discussion of the categorical difference between history and evolution, see Vogel (2000, 72–75), who argues for abandoning the term ›cultural evolution‹ altogether.

knows, is a story: a strategy to reduce complexity. When we are faced with the perplexing contingencies of our not-quite natural existence, it unburdens and consoles us to hear that the distressing issues of modern war and modern gender conflicts, as we find them in, say, early short stories by Ernest Hemingway, are really just reproduced from inherited tribal patterns. This kind of knowledge is consoling because it takes care of the one feature of our natural existence that will never be transcended and that we alone on earth are anxious about, no matter what artificial environments or limbs we create for ourselves: our individual mortality. Faced with this, it is a great consolation when we can imagine ourselves as creatures again, as species, part of universal time and forever surviving in the master narrative of evolution. Cognitive poetics and literary Darwinism provide this consolation.

However, facing individual death is what much art is *about*. Subjectivity and its discontents *define* our object of study. Henry David Thoreau wondered in *Walden* whether a greater miracle could take place than »for us to look through each other's eyes for an instant«. As a firm believer in human nature, he did not doubt that we would see something and recognize what we saw. But: »We should live in all the ages of the world in an hour; ay, in all the worlds of the ages« (1854, 6). Literature has always tried, among other things, to give us a sense of this culture shock of subjectivity. In doing so, literature may reveal itself as a biological coping disposition, but this does not even begin to account for its central concerns. There is human knowledge that accumulates and there is human knowledge that has to be constantly negotiated anew. Literary scientism in this situation fails to understand or acknowledge the methodological aim and status of hermeneutic approaches to literature. It is not a *deficit* of these approaches that they ask particularistic questions; it is their explicit way of searching for models of understanding that are appropriate to the peculiarities of their object. For when we study art and literature, we will inevitably have to engage with questions of human mortality and human subjectivity. And in doing so, we should not be content with consolations too cheap. Such, I would argue, are provided by books with titles like *Madame Bovary's Ovaries*.

Cheap consolations also abound in Darwinist discussions of aesthetics. Almost always, these discussions seek to explain human art by tracing it to hereditary patterns of perceiving beauty (mostly as symmetry). In the natural world, these patterns are obviously advantageous in the process of mate-selection. Building up on this idea, Darwinist scholarship spends much energy on the question of what could be the evolutionary function of artificial beauty. To this question, Ellen Dissanayake (1992) and after her Eckart Voland (2003, 2005) have developed the most persuasive answers so far, describing art as a form of »making special« that produces »expensive signals« marking, among other things, honesty. But illuminating as Dissanayake's and Voland's discussions are, even they run into trouble when confronted with works of art that are not, and do not intend

to be, beautiful. Evolutionary aesthetics has difficulties with modern art in particular, usually ascribing it to a human desire for novelty (Fahle 2005, 104–107). The explanatory force of evolutionary aesthetics then completely fails in the case of, say, Holocaust literature. Nor would we expect much help from evolutionary perspectives for our understanding of Toni Morrison's *Beloved* or David Dabydeen's *Turner*. This is so because in these texts, as in much of modern and also pre-modern literature, human aesthetics is concerned with the peculiarities of human history and human culture, as opposed to only human nature. No approach that subsumes history and culture to biology can do justice to the crucial issues, motivations, and functions of these works.

Neo-naturalist readings usually react to this embarrassment by ignoring those objects or themes that cannot be accounted for by their methods and models. This may have something to do with the widespread analytical fallacy to confuse the orderliness of one's own propositions with the properties and condition of one's object. The result in any case is a paradigm of literature that is mostly limited to beautiful texts with holistic messages. Most neo-naturalists are concerned with an altogether universal and ›happy‹ literature, which is, however, oddly out of touch with the modern world and its literary reverberations. Peter Stockwell, for example, automatically considers it a harrowing experience when readers are confronted in literature with *difference*. The first example that comes to his mind when he thinks about a book in which readers have ›to engage with ideas that are not naturally their own‹ (2002, 153) is Hitler's *Mein Kampf*. The term ›naturally‹ is of course deceptive here, because fascist ideology in the 1920s and 1930s was anything but unnatural. Nor was it natural. It was – and still is – cultural and historical. In its literary holism, and not only there, neo-naturalism frequently suffers from categorical mistakes and unsound conceptual distinctions.

Even Karl Eibl, who winningly stresses the evolutionary advantages of aesthetic pleasure, comes unintentionally close to this suggestion on the final pages of *Animal Poeta*. Art, he concludes, is dependent on biological dispositions that can be studied in a scientific manner, but the *subject matter* and *function* of art often lie outside the scope of scientific inquiry: ›The questions that we cannot reject but that surpass the faculties of human reason can nevertheless be made valid in human communication: They can be made intersubjective‹ (2004, 351). This, Eibl says, is what art does. Art, in other words, takes seriously Ludwig Wittgenstein's insight that ›even when all possible scientific questions have been answered, our problems of life have not even been touched upon‹ (1918, 85). More often than not, art is about – and exemplifies – those aspects of human existence that are in conflict with our first, physiological nature. And no methodical description of art should neglect this feature. In this context, Eibl's reference to ›intersubjective‹ knowledge points to a well-established way out of the dichotomy of universal and particular knowledge. Instead of dismissing her-

meneutic (and other) attempts at intersubjective inquiry, neo-naturalism would do well to recognize their concern for an *appropriate* method. Otherwise, literary scholarship risks surrendering entire traditions of research, together with time-tested methodological models, dedicated to the study of human culture as an imperfect realm of contingency, asymmetry, and untidiness.

5. Of Minds and Men

[T]he explanation of events and processes such as Hannibal's victory at Cannae, or the decline of the Roman Empire, the Industrial Revolution, or the rise of Romanticism has nothing to do with the matter of which the explanada are made, since they are not made of anything [...]. Legal systems consist of laws and not of matter; poems consist of stanzas, not of ink; and revolutions consist of human actions and events.

(Bennett/Hacker 2003, 358f.)

But isn't this Dilthey's old divide between *Geisteswissenschaften* and *Naturwissenschaften* all over again? And isn't this divide based on an obsolete dichotomy of nature and history? Aren't my objections to neo-naturalism based on what neuroscientists like to call »the Cartesian error«, i.e. the dualist separation of mind and body (Damasio 1994)?

I repeat my point: The neo-naturalist position is marred by a *conceptual* – not necessarily an ontological – confusion between humankind's first and second nature and by an attendant confusion between the modes of knowledge appropriate to either realm. Neo-naturalism suffers from a failure of logic, not a failure of morality or a failure of aesthetic piety. In other words: What needs to be mended is the way that neo-naturalists, and even many scientists proper, *talk* about their objects of study. This is nowhere more evident than in the manner neo-naturalists employ the word »the mind«, perhaps the most fetishistic and at the same time most central constituent of their vocabulary. It occurs in book titles such as *The Adapted Mind* (Barkow/Cosmides/Tooby), *How the Mind Works* (Pinker), *The Literary Mind* (Turner), and *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities* (Fauconnier/Turner). It also occurs, quite typically, in pronouncements such as the following, taken from a contribution to *The Literary Animal*: »Whether we like it or not, the mind is present in culture, and the mind has intrinsic form and content« (Nettle 2005, 74).

Thus we are made to understand that the mind is an empirical entity, a substance with tangible form and describable content. We would expect nothing

else from a scientific object of study. But what *is* the mind? And *where* can it be found and studied? This is the crucial question asked by M. R. Bennett and P. M. S. Hacker in their imposing *Philosophical Foundations of Neuroscience*, a study that presents the most comprehensive and most challenging critique of ruling neuroscientific orthodoxies so far. For neo-naturalists, it should be of consequence that this critique of their »model-field« was formulated neither by post-structuralist relativists nor by humanistic nostalgists, but by an analytic philosopher and a neuroscientist, both leading representatives of their fields. It is widely held that all future research in the cognitive sciences will have to come to terms with the issues raised by Bennett and Hacker. However, no reception in literary scholarship has yet taken place, as far as I can see.

One of Bennett and Hacker's basic claims, somewhat indebted to Gilbert Ryle, is that much neuroscientific research is marred by what they call the »me-reological fallacy«. This fallacy occurs when someone uses certain predicates in order to refer to the part of an object, when only the whole object can serve as subject matter. Thus, it makes no sense to say: »My hand is in pain«. Because: »when my hand hurts, I am in pain, not my hand« (2003, 73). Cognitive scientists, however, quite routinely speak of the brain or even of the mind in such a fallacious manner. As a result, Bennett and Hacker argue, they often misconstrue their questions and misinterpret their results.

Bennett and Hacker thus object to the neuroscientific tendency to think of the brain as an independent causal agent that intentionally controls other body parts. But it is not the brain »that feels pain, perceives, thinks and desires, makes decisions and forms intentions, but the person« (ibid., 106), i.e. the individual human being (which does not preclude that those thoughts, desires, or intentions can be determined by external or trans-individual factors as well). Such personifications of the brain are obviously not the result of empirical observations which show that the brain thinks and reasons. For Bennett and Hacker, this »would be absurd because we do not even know what would show that the brain has such attributes« (ibid., 72). What are those personifications then? According to Bennett and Hacker, they are »adopted *without argument or reflection* [...] as result of an unthinking adherence to a mutant form of Cartesianism« (ibid.). And upping the ante: »in spite of their adamant repudiation of Cartesianism, [...] neuroscientists [...] have in effect replaced the Cartesian dualism of mind and body with an analogous dualism of brain and body« (ibid., 111).

This is more than just a little bit surprising because the intellectual appeal of the cognitive sciences rests to a considerable degree on their claim to have overcome »Descartes' error« (the dualism of mind and body). Practitioners of cognitive poetics, for example, incessantly tell us that literary meaning is a question of »embodiment«, i.e. made possible and actualized by basic physiological facts. It is not the incessant repetition of this insight that is troublesome; it is the conceptual confusion it entails. Bennett and Hacker write:

It is, [Descartes] held, the mind (thus embodied) which has sensations, perceives (i.e. has the sensible experience as of perceiving an external object), imagines, thinks and doubts, feels emotions, wills and decides [...]. [T]oday [...] many scientists are prone to ascribe a similar range of psychological predicates to the brain. Some, in the wake of Chomsky and his followers, are even prone to speak of the »mind/brain«, as if the mind and the brain were (or might be discovered to be) one and the same entity. This is no less erroneous than the Cartesian confusions it displaces. (ibid., 104)

Identifying the mind with the brain is in fact an extremely widespread habit among scientists and then also among neo-naturalists. Some seem to be aware that this is a disingenuous way of solving the problem of dualism. Therefore, they posit »the mind« to be an organ *within* the brain (as Damasio basically does). In what has been celebrated as one of the most advanced surveys of neurobiology, *The Quest for Consciousness*, Christof Koch has recently declared that

somewhere [!] in the confines of the frontal lobe are neuronal networks that act to all intents and purposes like a homunculus. This is a nonconscious homunculus who receives massive sensory input from the back of the cortex [...], makes decisions, and feeds these to the relevant motor stages [...]. The nonconscious homunculus [...] is responsible for many complex operations, such as thoughts, concept formation, intentions, and so on. (Koch 2004, 297f.)

It doesn't take an analytic philosopher to understand that this idea of a »non-conscious homunculus« in our heads only shifts a conceptual puzzle from one level to the next. And while the advocates of cognitive poetics may think they are participating in the exciting new knowledge of post-Cartesian science, they are participating in a history of terminological substitutions (from mind/body to brain/body to mind-in-the-brain/body).

What, then, is »the mind«? Paradoxically, neo-naturalist scholarship is of little help in answering this question. When Karl Eibl treats »innate plots«, he writes that their basic schemas or scripts are stored »in our mind [*Geist*] or brain« (2004, 265). A passage earlier he notes about »innate epic schemas«: »There are probably a lot of those in the human soul« (ibid., 265). Later, we read: »What is the mind other than thought [*das Denken*]« (ibid., 296) So what is it? The brain, the soul, thought? Is this all the same? For an approach that prides itself on its *Wissenschaftlichkeit*, there is an astonishing terminological fuzziness, and it concerns some of the field's most central concepts. In the end, it doesn't even matter which word is used for »the mind«, because the way neo-naturalists talk about – and hence think of – this concept is very frequently erroneous. For there is nothing *in* the soul; the soul *contains* nothing, just as the brain cannot *store* scripts and schemas (Bennett/Hacker 2003, 152, 165, 182). Knowledge is not *in* the brain, and thinking is not done *by* the brain, but people need brains in order to think – in the same manner as they need eyes in order to see (but it is not the eye that sees and looks, it is the embodied, living person). As Patrick Bateson and Paul Martin have pointed out, concerning another popular fallacy: »Genes make proteins, not behaviour« (1999, 63). Or in the words of Bennett and Hacker:

[I]nasmuch as the mind is not a substance, indeed not an entity of any kind, it is not *logically possible* for the mind to function as a causal agent that brings about changes by acting on the brain. This is not an empirical discovery, but a conceptual clarification. (2003, 64)

What becomes evident is that »the mind« – in book titles such as *The Literary Mind* or in statements by, say, Antonio Damasio – is a *trope*. It is a »*façon de parler* for talk about human powers and their existence«, not an empirical object or material substance. Thus, »the mind cannot be explained by reference to what is known about the brain« (ibid., 62):

[I]f we are puzzled by a person's actions, if we wish to know why A signed a cheque for £ 200, no answer in terms of brain functions is likely to satisfy us [...]. A description of neural events in A's brain could not possibly explain to us what we want to have explained [...]. Explanation of action by redescription, by citing agential reasons, or by specifying the agent's motives (and there are other forms of explanation of related kinds) are not replaceable, even in principle, by explanations in terms of neural events in the brain [...]. The type of explanation is categorically different, and [...] not reducible to explanations of muscular contractions produced as a consequence of neural events. (ibid., 64)

All of this has consequences for the interaction of the sciences and the humanities. Both realms of knowledge are not separated by an ontological difference or by an unbridgeable institutional gap of understanding. But their separate institutionalization pays tribute to the fact that each of the two branches produces a type of knowledge that is categorically different from the other. We can see now that the unsatisfactory character of neo-naturalist readings is not a coincidence; it inheres in the chosen approach. So if we want to make naturalist approaches productive for the study of literature and culture, we must first relieve them of some of their logical errors. Prime among these errors is a misguided conception of literary and cultural activity as something that essentially occurs *in* human beings, in their bodies and brains, as opposed to something that is an act *of* human beings, for which they make use of their bodies and brains, acting on and contributing to their self-created environments. Culture is not simply physiological matter; it is a historical process of differentiation involving intentions, non-intended determinations of intentions, misunderstandings, appropriations, and contingencies. To paraphrase Bennett and Hacker, these questions call for conceptual clarification, not for experimental investigation (ibid., 71). If we want to profit from the important issues raised by evolutionary and cognitive discussions of literature, we therefore need to restate these issues at the level of culture(s), where they belong.

6. Scenes of Recognition

Why do we teach Jane Austen, or Icelandic sagas, or Hindu funerals? Just that: to wound our complacency, to make us a little less confident in and satisfied with the immediate deliverances of our here-and-now imperious world.

(Geertz 2003, 33)

What I have been arguing so far is that physiological or biological discussions of literature are not in conflict with historical or interpretive scholarship; nor are they in competition with it (cf. Bennett/Hacker 2003, 366). Both forms of knowledge are categorically distinct, not at variance or incompatible. But neo-naturalists frequently misunderstand *what kind* of knowledge is produced by culturalist approaches, seeing in them nothing more than radical constructivism or epistemological relativism. Neo-naturalists also tend to misunderstand the *forms of ignorance* that are characteristic of interpretive scholarship, taking an approach's necessary limits as proof of its illegitimacy.

Curiously, however, neo-naturalists regularly reach a stage of argumentation where they begin to question the value of scientific foundationalism for the study of culture. This is particularly true for literary scholars, but linguists and scientists, too, often come close to such conclusions. In fact, it could be argued that the major drift of Mark Turner's *The Literary Mind* is anti-foundationalist, being directed against the Chomskyan assumption that grammar is prior to meaning. Not so, says Turner, and illustrates how story and what he calls ›parable‹ in fact produce syntax, rather than the other way round. This insight leads to a provocative new account of grammatical features such as tense, which according to Turner arises ›essentially from focus and viewpoint‹ (1996, 161). Thus, Turner concludes, linguistics – often proud of seeing itself as a ›hard science – needs to be informed by literary theory, because ›[t]he complexities of [...] narrative imaginings have been surveyed by rhetoricians and literary critics for many centuries‹ (ibid., 120). It is ironic that some literary scholars in their reading of *The Literary Mind* construe this to mean that literary scholarship must become more like Chomskyan linguistics.

Of course, Turner does not intend to take an anti-foundationalist stance. He merely wants to establish what is *more* fundamental: an inherited grammatical ›deep structure‹ or inherited cognitive capacities such as ›blending‹ (i.e. the human ability to mix concepts or to project them onto various different objects). But when Turner comes down on the side of an active and fluid – rather than a static and structured – notion of meaning, his position is not altogether incompatible with the counter-intuitive claims of much postmodern philosophy:

Meanings, in this way, are not mental objects bounded in conceptual places but rather complex operations of projecting, blending, and integrating over multiple spaces [...]. Meaning never settles down into a single residence. Meaning is parabolic and literary [...]. [It] is typically a dynamic and variable pattern of connection over many elements. Our conscious experience seems to tell us that meanings are whole, localized, and unitary. But this is wrong. Blending is already involved in our most unitary and literal perception and conception of basic physical objects, such as *horse* and *born*. (Turner 1996, 86, 106, 112)

This image of meaning as vagrant hybridity is not quite the same as Jacques Derrida's startling assertion that writing precedes speech, but Turner's own claim that »story precedes grammar« (ibid., 168) leads him to conclusions about the subversive force of narrative that Derrida would certainly recognize. In his paean to Scheherazade, for example, Turner praises story-telling as a form of political destabilization with almost utopian consequences. Scheherazade resists power, not by speaking truth to it, but by arresting power in an endless web of imaginings:

Shahrazad [...] is an absolute genius. She is [...] portrayed as starting from a position of no institutional power at all and bringing about what no one else of any institutional authority could possibly have done. It is Shahrazad that we admire and remember. She accomplishes all this through parable. (ibid., 132)

In this connection, Turner recognizes that human nature is not sufficiently described by timeless principles and laws, because »a human being – a mind in a brain and a body – leads a singular rather than a general existence«:

To the eye of God, there would not be alternative ways of seeing, but only seeing pure and absolute and permanent. A human being does not have a God's-eye view. A human being has always only a single view, which is always local [...]. It is astonishing that we forget so easily that we have only a single, local view. (ibid., 116)

Human subjectivity, however, does not prevent us from studying humanity in universal terms, for it is precisely this subjectivity that is universal – as is the human proclivity to ascribe universal meaning to subjective perspectives. According to Turner, then, our forgetfulness »that we have only a single, local view« is not »astonishing« after all, but it is actually inevitable:

What we see of an event may look entirely unlike what a person on the other side of the event may see or entirely unlike what we ourselves actually do see when we walk to the other side, but we imagine that these views from either side are nonetheless views of the *same* story, despite the manifest differences in perceptions. (ibid.)

According to Turner, this recognition of a common humanity is primarily achieved in »literature«, which becomes an umbrella term now for all sorts of »blendings«, including instinctive and everyday imaginings: »As sensory beings, our view is always single and local because we have a single life and not a general life. As imaginative beings, we constantly construct meanings designed to transcend that singularity« (ibid., 117). For Turner, as for many neo-naturalists who follow him, this is enough. Now we can talk about »the basic human story« that grounds and unites all cultural diversity: »There is a basic human story here – the story of a person recognizing a story« (ibid.).

The consolatory power of this story is unquestionable, as is its verisimilitude. We may even feel reminded of Jürgen Habermas, whose theory of »communicative reason« is based on a similar insight into the universality of rational differences, and hence their potential conciliatoriness. But while for Habermas, this is where the trouble begins, for Turner, the question of subjectivity and objectivity is settled now. Such contentment springs, once more, from a failure to grasp the fundamentally intersubjective, and hence conflictive, nature of literary communication. Whenever we »transcend our singularities« by »inhabiting a role« or taking on a character's »focus or viewpoint«, we certainly make use of a universal human capacity (Turner 1996, 134), but this is not to say that we have attained an objective perspective or that rational disagreements are now ruled out. On the contrary, rational disagreements presuppose that we recognize ourselves as interlocutors in an act of communication. Only then can and will we begin to argue about *which* story is the proper one to recognize. So when I read *Moby-Dick* with regard to the content and structure of *this* book, I am not fusing my imagination with that of another concept-blender in one large anthropological embrace – unless I'm reading the book as religion – but I am transcending my own subjectivity by confronting it with, not one, but many different alternatives of subjectivity. This is a demanding, if rewarding, activity because it requires a constant negotiation and renegotiation of meaning: Should I be content with recognizing what I have already established? Should I affirm the book's perspective(s) as an absolute other in which I can joyfully lose myself? Should I return to the narrative after it has changed my outlook? Will it then be a different book to me?

These questions suggest that intersubjectivity is not a matter of thinking that all stories are essentially and statically the same. Our universal human nature makes intersubjective encounters possible in the first place, but each encounter is a particular and consequential one, taking place at a specific time, in a specific place, within specific contexts, and often with contingent and disharmonious results. Intersubjectivity, in other words, has a historical and a communicative dimension. This explains why intersubjectivity always entails conflict and debate, often between competing universals (Lepenies 2003). Literary holism is badly equipped to deal with these issues, because it naturally *deploras* that the last word on, say, *Moby-Dick* can never be spoken. But the fact that literary scholarship produces little timeless knowledge is not a sign of its irrationality; it is one of its defining features. We may dislike the volatility of such inquiries, but that's what we are concerned with in the study of literature and culture. And there are fairly well-established forms of methodological reflection on the problem of valid negotiation, ranging from traditional hermeneutics to more recent models of historical pragmatism. Turner lacks such theories of intersubjectivity. (So does Derrida.)

Ever so often, however, neo-naturalists seem to feel that they are in need of such theories. Toward the end of Stockwell's *Introduction* to cognitive poetics,

the author recognizes that readers require more than intact brains to understand a given text. They require knowledge of contexts and a sense of their history. What we think of a given book, Stockwell writes, is »the outcome of a process of reading and social negotiation« (2002, 123). Stockwell thus complains that neo-naturalist approaches so far have paid »only implicit attention to the social and interactive dimensions of human cognition« (ibid., 169). He goes on to demand a »more radical understanding of *discourse*« which »foregrounds a wider view of the social dimensions of language than simple face-to-face interaction«, including an increased critical awareness of »ideology in language« (ibid., 169 f.). Surprisingly, this does not lead him beyond sociolinguistics to enter into a dialogue with established culturalist approaches that have been dealing with exactly these issues for quite some time now, from Foucauldian discourse analysis to the New Historicism.

I consider this to be a characteristic moment in neo-naturalist criticism. Repeatedly, neo-naturalist scholars reach a point where they recognize that in order to do literary analysis they need to confront questions of social and cultural construction in their historical specificity, and not just physiological or pragmatolinguistic verities. Stockwell's acknowledgment that mental categories determine what world we think we live in finds a congenial counterpart in the New Historicist insistence that literary works do not simply reflect social reality but help to create it. Similarly, *Animal Poeta* echoes Clifford Geertz when Eibl speaks of culture as »a web of reified concepts« (2004, 216) and concedes that human dispositions developed in the Pleistocene »partly stand in completely different contexts today and have a completely different function« (ibid., 327). Pronouncements like these typically occur in the final chapters or pages of neo-naturalist books and articles. Here, evolutionary theory comes around and finally catches up with cultural studies and the social sciences, usually defamed as »constructivist« in the first pages and chapters of those books and articles. Sometimes, evolutionary theory even catches up with postmodernism. David Sloan Wilson reflects on »the genelike nature of stories«:

[W]e constantly construct and reconstruct our selves to meet the needs of the situations we encounter, and we do so with the guidance of our memories of the past and our hopes and fears for the future [...]. How we behave toward our loved ones depends upon whether we regard love as a fantasy story, a business story, a collector story, a horror story, a pornography story, and so on [...]. [W]e are a composite of our stories. As Immanuel Kant pointed out in *The Critique of Pure Reason*, if there is an objective reality, it is unknowable. All we can know is the reality we construct. (Wilson 2005, 30)

Wilson has no quarrel with Foucault here. This is not to belittle the differences in aim and intellectual style between an evolutionary and a postmodern perspective. But it seems curious that in confronting the peculiarities of their object of study, literary Darwinism and cognitive poetics are regularly brought to inferences that parallel those from which culturalist approaches take their departure.

Regularly, too, literary Darwinism and cognitive poetics refuse to draw the conclusions from this situation and to read – critically, but generously – what has already been done and achieved along these lines of inquiry (cf. Stolzenberg 2001, 34). If it is acceptable and accepted that in order to make sense of literature, we ultimately need to study textual and ideological structures in their historical contexts, whence the neo-naturalist pathos of fundamental innovation? And if naturalists can describe even scientific knowledge as something that is dependent on metaphor and narrative,⁹ why are they so hostile to ›science studies‹? The *tone* of the debate points to something other than the issues.

7. Theory Redux

I think we need to take cognizance of this tendency in academic and intellectual life to imagine that the truth, or the most revealing methods, or the paradigm with the answer, is just over the road apiece – in your neighbor's yard or department or academic journals rather than your own.

(Garber 2001, 67)

If the tone of the debate between naturalism and culturalism points to something other than the issues, it still influences the way those issues are treated. This is unfortunate, because neo-naturalist approaches have something crucial to contribute to the study of literature and culture in the early twenty-first century. Their dissatisfaction with self-serving theoretical disputes provides a necessary antidote to the obscurantism of much humanist scholarship today. Their interest in principled analysis has the potential of opening up cultural studies to unjustly forgotten fields such as rhetoric and stylistics. And their concern with the anthropological status of literature can act as a control on hasty brands of cultural relativism. But all of this depends on the capacity and willingness of neo-naturalist and culturalist approaches to face their own necessary limits and enter into an unprejudiced dialogue with each other. It seems unlikely that such a dialogue will soon take place, because the differences between both approaches are not just intellectual – they are ideological as well.

The background and history of this ongoing ideological strife – known in the United States as ›the culture wars‹ – deserves a study of its own. It is a strife characterized by uncompromising polarizations and polemics, as when neo-naturalists

⁹ Compare Mark Turner: ›Blended spaces play a routine role in the development of even the most fundamental scientific concepts‹ (1996, 95). See also David Sloan Wilson, approvingly quoting Albert Einstein: ›it is the theory that decides what we can observe‹ (2005, 34).

suggest that critics of an evolutionary perspective must be creationists or worse. (Nobel laureate Steven Weinberg insinuates that critics of scientism have something in common with Aryan fascists.)¹⁰ In turn, those engaged in »science studies«, while often lacking the necessary training to evaluate their object, regularly make a caricature of scientific aims and methods. If my arguments above are valid, a dialogue between the sciences and the humanities that is mutually enhancing requires more – and something different – than the hope for a holistic form of knowledge in which all these differences will disappear. On the contrary, a mutually enhancing dialogue must begin with disciplinary self-awareness: with recognizing and respecting the real contentions that exist between categorically distinct types of knowledge. A mutually enhancing dialogue would have to be inter-disciplinary in the same manner in which our best scholarship would have to be inter-subjective.

But strikingly, the call for interdisciplinarity has recently mutated into something quite different. This call is omnipresent in neo-naturalist rhetoric. There is hardly a paper, article, or book in the field that does not stress the need to cross boundaries, to fight against intellectual insularity, and to »reverse the trend of extreme specialization of knowledge« (Gottschall/Wilson 2005, xvii). It is hard to resist these morally charged appeals. And yet, in an important sense they must be resisted, because more often than not, the call for interdisciplinarity now indicates a lack of disciplinary self-knowledge and modesty. At its worst, it masks intellectual imperialism. Nowhere is this more obvious than in Edward O. Wilson's promotion of sociobiology as a discipline providing »consilience«, i.e. »the unity of all knowledge«. No doubt, the idea that the warring branches of learning can be reconciled for good is very attractive. Yet it is erroneous. As Tzvetan Todorov has shown, Wilson's sociobiology »seeks not to reconcile the natural sciences and the social sciences, but to facilitate the absorption of the latter by the former« (1998, 29, cf. Garber 2001, 29). Literary and cultural studies, too, are to be reduced to the paradigm of biological research, but without ever being allowed to become proper sciences themselves. In his brief »Foreword from the Scientific Side« to *The Literary Animal*, Edward O. Wilson notes with unequivocal lopsidedness: »Those who take the naturalistic approach stand apart from science in important ways but have much to accomplish if they draw upon all it has to offer« (2005, xi). Literary scholars thus are the unskilled workers in an empire of knowledge where biology rules premier. This »third« culture is essentially a case of the first culture colonizing the second. Similarly, Steven Weinberg's bestseller *Dreams of a Final Theory* prophesies that the laws of nature will soon be united in one complete, mathematically correct scientific statement.

My contention, which Weinberg even seems to share, is that this »theory of everything«, if it is ever formulated, will exactly not render redundant human

¹⁰ See Weinberg 1992, 15. Compare also Kleeberg/Walter (2001, 21) on strategies of argumentation in Dennett 1995.

art or humanist knowledge about art. Some of the most pressing problems of human existence will not have been touched upon, as Ludwig Wittgenstein reminds us. Nor will they have disappeared. History will continue, human mortality will continue, and with it contentions and negotiations about texts, beliefs, and actions. The questions that we cannot reject – as Eibl calls them – will still concern us in an unpredictable variety of discordant cultural shapes. And humanist knowledge about these concerns will neither be in conflict nor in competition with Weinberg's scientific ›world formula«. It will also be necessary. In other words: The consilience of all human learning is not only logically untenable, it would not even be desirable – not even *within* the sciences, as Tilmann Walter points out (2001, 247).

Thus, what is most remarkable about books such as *Consilience*, *Dreams of a Final Theory*, and similar publications is not the sweeping range of their claims but their popular success in the 1990s and early 2000s. It has been suggested that Wilsonian sociobiology actually marks a dramatic regression from the traditionally high standards of scientific reflection on method (Kleeberg/Walter 2001, 23, 47). The same can be said about numerous publications in the burgeoning field of neuroscience. But the popular image of science today is determined to a considerable degree by such holistic and utopian publications (Nelkin/Lindee 1995/2004). In the public media, science increasingly appears as a branch of learning that may soon be able to solve all questions of human knowledge at once, and that already today provides an altogether cosmic explanation for human existence. In this connection, Tilmann Walter's analysis of Edward O. Wilson's language has revealed a welter of religious metaphors and explicitly millennial promises, all stated in the diction of exact science. Walter concludes that Wilson's bestselling books are astonishingly similar to popular esoteric literature (2001, 241). In the same vein, Bennett and Hacker deplore that many cognitive scientists »are fostering a form of mystification and cultivating a neuro-mythology« that confuses and deludes the public (2003, 409).

Strikingly, it is this popular, mythologized image of scientific knowledge that underpins much of the contemporary humanist enthusiasm for the ›life sciences«. Obviously, the time-honored nature/nurture-debate has undergone some striking changes in the 1990s and 2000s. In terms of cultural history, we have been witnessing a spectacular shift in interpretive authority from the humanities to the sciences. When C. P. Snow wrote about the ›two cultures« of knowledge in 1959, he could still complain about the low public prestige of the sciences and about the lack of basic scientific education among literary intellectuals. Today, the fronts are reversed. When a journal like *Social Text* publishes a parody of poststructuralist ›science studies« without noticing the hoax, it is justly ridiculed. But when Edward O. Wilson and Steven Pinker address questions of literary and cultural studies in a crassly dilettantish manner and without the least interest in the methods, goals, and questions of the fields they dismiss (and without intending a hoax either), they are publicly celebrated as courageous trans-

gressors of disciplinary boundaries. In view of their Pulitzer prizes and in view of the support they receive from the media against ›constructivists‹, ›relativists‹, and ›tenured radicals‹, it is strange to envision neo-naturalists as embattled and suppressed (as they like to present themselves in the prefaces of their books).

Marjorie Garber has written engagingly about the recent »disequilibrium between science and literature« and how this disequilibrium feeds »discipline envy« (2001, 31, 58). It may be useful here to think of the advent of cognitive poetics and literary Darwinism in historical terms: as an example of growing humanist self-doubt in the face of a rapidly shifting balance of symbolic power between the disciplines. I have already pointed out how ironic it is that some scholars construe Mark Turner's plea for a more ›literary‹ linguistics as an occasion for self-castigation. Re-channeled uncritically into philology, Turner's insights into the basic human functions of narrative often produce a strange feedback noise which pronounces the end of philology as we know it. The academic »fantasy of becoming that more complete other thing« (Garber 2001, 67) can be a stimulating incentive to intellectual curiosity, but in this case it is doing a disservice to the critical self-awareness of literary and cultural studies. There is little doubt that the poststructuralist paradigm has exhausted its historical usefulness and is on its way out, but in the process, there is the very real danger that the humanities will surrender whole areas of knowledge to the fashionable promises of a flawed understanding of interdisciplinarity as transdisciplinarity. Those endangered areas of knowledge are precisely the ones that the natural sciences are least successful in dealing with: areas of knowledge concerned with the conflictive plurality of human imaginations and cultures.

What we are witnessing, then, is less a paradigm shift than a shift in institutional power and cultural capital (and it would be naïve to believe that the humanities only have to follow the flow of cultural capital in order to get at the economic capital as well). As far as paradigm shifts go, neo-naturalism satisfies the humanist desire for such revolutions no better or worse than earlier master theories in our fields. In fact, it is remarkably similar to them. Like the maligned theoretical jargons of poststructuralism, for example, neo-naturalism has developed a specialist vocabulary that signals in-group commonality, reinforces internal conviction about aims and methods, but is often hard to unravel (or appreciate) from the outside. In order to state that Oscar Wilde challenges his audience by playing with the identities of his characters in *The Importance of Being Earnest*, Stockwell writes: »Not only do enactors proliferate as different permutations of relationships emerge or are disconfirmed, but the audience has to monitor each particular permutation and identify it correctly within the belief frame of the appropriate character« (2002, 161). This certainly *sounds* scientific – in the same manner in which much poststructuralist rhetoric sounds ›deep‹ – but more than employing (necessary) ›terms of the art‹, it performs (unnecessary) jargon. If this jargon proves successful in attracting followers – and there is little doubt it will

continue to do so – we can expect to find the word *cognitive* as a talismanic token in a lot of future conference titles, graduate student papers, and grant proposals. Stockwell sometimes comes close to parodying the promising self-sufficiency of this new jargon, for instance when he explains which requirements literary analysis has to fulfill »in order to be fully cognitive poetic« (ibid., 136), or when he says: »Though Halliday comes out of a different tradition, he has recently affirmed that his approach is cognitively sympathetic« (ibid., 70).

Obviously, then, those who are hoping that with neo-naturalism we can reach a blissful age of »Post-Theory« will be disappointed. The institutional force and attractiveness of neo-naturalism as an academic movement lies precisely in its competitive continuity with the rhetorical and ideological practices of earlier humanist master theories such as Marxism, psychoanalysis, or poststructuralism. A few parallels shall suffice. Like these earlier master theories, neo-naturalism always finds itself wherever it looks. Literary Darwinists read Victorian novels in order to discover allegories of Darwinism; Stockwell reads surrealist poetry in order to recognize that »the surrealist view of language was holistically cognitive, though expressed in the psychoanalytical and political terminology of the time« (2003, 21). Thus, the object proves the method (rather than the method being used to illuminate the object). The charisma of neo-naturalist approaches here resides in their internal intellectual irresistibility: It is impossible to *argue* with dedicated Darwinists or Marxists or Deconstructionists, because once they have established the truth of their theories, *everything* makes sense *within* their propositional system. External critique, that is, can either be dismissed as incompetent or restated *in terms of the theory criticized*, thus proving the theory's fundamental veracity. Most notorious in this regard is the Freudian assumption that resistance to psychoanalysis is actually a case in point for the psychoanalytic concept of »repression«. It is no argument against these comparisons that Darwinism is a scientific theory, while psychoanalysis and Marxism are only superstitions, because this is what competing universals always claim about each other. And it is not to say that the theory of evolution is implausible or even wrong when we recognize that it is based on a hypothetical, self-recognizing, though scientifically controlled, narrative (Kleeberg/Walter 2001, 47–49). Similarly, the »mind«, as spoken of in the cognitive sciences, is a metaphor – which is not to say that it is a fiction and cannot be studied in a methodical manner.

Like Marxism, psychoanalysis, or poststructuralism, then, neo-naturalism always approaches its objects of study with a firm belief that methods and models represent truths, rather than serve as tools. There is no phenomenon that cannot be reduced to a Darwinist description which then sees itself as a fundamental explanation of this phenomenon. In the study of literature and culture, this is not a petty objection, as long as we are looking for a properly object-attuned way of study. But like its theoretical predecessors and competitors, neo-naturalism is able to accommodate each novel, each poem, each restaurant menu by familiar-

izing and universalizing it in the context of a self-reinforcing and consoling master narrative. Like some of its most defamed ›constructivist‹ antagonists, such as Friedrich Kittler's media theory, this master narrative is fascinated with the reducibility of cultural meaning to mechanical and causal operations: not to technological determining forces, in this case, but to the causal sufficiency of the body-machine itself. In the process of doing so, neo-naturalism routinely trivializes what is historically, culturally, and linguistically distinct about the things it studies. Whenever this happens, neo-naturalism provides Theory with a capital ›T‹, as described by Patai and Corral: ›an institutionalized belief system claiming total explanatory force« (2005, 23).

Thus, from their standardized jargon to their pathos of radical innovation, neo-naturalist approaches commonly offer themselves as the humanities' latest purging overhaul that no-one can afford to miss. It's not unlikely that this new aspiring paradigm will breed powerful disciples, stack editorial boards to preclude dissent, foster sectarian schisms, keep everyone busy in refashioning their vocabularies and research agendas – while already conjuring up the *next* paradigm shift that will redeem the excesses of this soon to be routinized master theory. All of this is not necessarily a bad thing; it may teach us equanimity about our work and our own historical position. Before long, we may look back on the exciting prophecies of literary Darwinism and cognitive poetics and regard them in the same light as we do the rapturous proclamations of early postmodernism: as enthusiastic, now almost quaint fantasies of a new age of knowledge. Nevertheless, these fantasies contain important truths of and for their times, and many useful methodological tools as well. If only we don't forget what those tools are for and which complexities and demands we face in the study of culture. As early as 1979, Edward O. Wilson declared with confidence: ›Human nature might be simpler than we thought« [1].

Think again.

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