*A Companion to Nietzsche*
Edited by Keith Ansell Pearson
Copyright © 2006 by Blackwell Publishing Ltd

# 6

# Nietzsche's "Gay" Science

BABETTE E. BABICH

Nietzsche's conception of a gay science is alluringly seductive, comic, and light – and accordingly many readers have celebrated it as the art of laughter. And, to be sure, the first edition of *The Gay Science* began with a teasing series of light, joking rhymes.[1] Taking this teasing further, the 1887 title page replaces the 1882 epigraph from Emerson with a gently unserious rhyme, adding a fifth book and finishing it off with an additional cycle of songs – *Songs of Prince Vogelfrei*[2] – invoking at once the knightly as well as the chastely[3] erotic character of the troubadour (and recurring in the arch allusions of Nietzsche's *Ecce Homo*).

Nevertheless, a "gay" science, emphasizing light and laughter, has well-known risks: success in the parodic art of laughter seems to block the seriousness of science. Nietzsche recollected what he mocked as the "vanity" of then contemporary scholars, incensed by his use of the "word 'science,'" – a pique that not has quite played itself out – and their complaint, "'gay' it may be, but it is certainly not 'science'" (*KSA* 12, 2[166]). The objection is a pointed one. Nietzsche had hoped to articulate a profoundly "serious" science (*GS* 382), gay only out of profundity – just as the ancient Greeks had discovered the art of drawing his delight in the surfaces of things, his gay "superficiality," from the depths of tragic wisdom (*GS*, preface, 4).

From the start, Nietzsche's joyful science goes beyond the fun of mockery and "light feet." Alluding to the song art of the troubadours, the book itself might be regarded as a handbook to the art of poetry, as Nietzsche suggests, playing on the notion of *vademecum* in the series of short poems that made up his "'Joke, Cunning, and Revenge': Prelude in German Rhymes," a title which alludes to Goethe's *Scherz, List, und Rache*, via a musical setting.[4] *The Gay Science* thus explicates the science of philology as much as it exemplifies the art of composition. In this sense, one might literally say that *The Gay Science* is Nietzsche's most scientific book.

The dimension of song, the "gay" dimension, complicates this perspective. As we know from the quotation marks in the subtitle Nietzsche added to the second edition of *Die fröhliche Wissenschaft*, the language of *la gaya scienza* is not Nietzsche's coin. Indeed, in his notes, Nietzsche decries the blindness of his academic readers apart from their "misunderstanding of cheerfulness [*Heiterkeit*]," but beginning with the title itself, Nietzsche sniffed, "most scholars forgot its Provençal meaning" (see *BGE* 260; *KSA* 11, 35[84], 36[6]).

From Provence to the Occitan, one of Nietzsche's *Nachlass* drafts, *Gai Saber*, introduces an address to "the mistral" (*KSA* 11, 35[84]; cf. *GS Songs of Prince Vogelfrei*; *EH*, "GS"). This is the troubadour's art (or technic) of poetic song, an art at once secret (cf. the discussion of *trobar clos* in Aubrey et al. 1999: 263), anonymous and thus non-subjective (Aubrey et al. 1999: 259),[5] but also including disputation[6] and comprising, perhaps above all, the important ideal of action (and *pathos*) at a distance: *l'amour lointain*. Nietzsche's exploration of the noble art of poetic song is intriguing enough to compel attention. As he details these song forms in his notes,[7] Nietzsche also seems to have modeled some of his own poetic forms on this tradition. In one obvious instance, the 1887 appendix of songs to *The Gay Science* includes a dance song entitled "To the Mistral," to be heard together with Nietzsche's praise of the south and affirming Nietzsche's love of Dame Truth herself (*Songs of Prince Vogelfrei*, "In the South"). Even more, as Roger Dragonetti reminds us at the start of his reflections on the origins of the *gay saber*, the playful context of laughter – "hilarity" – and the joy of play are as central to Nietzsche's *The Gay Science* as they are to this same medieval tradition of vernacular song. *The Gay Science* begins with just such a reference to gaiety as such, while recollecting the focus of Nietzsche's first book on musical poetry, *The Birth of Tragedy*, "Not only laughter and gay wisdom but the tragic too, with all its sublime unreason, belongs among the means and necessities of the preservation of the species" (*GS* 1).

Nevertheless a focus on the art of the troubadour as key to Nietzsche's "gay" science inevitably takes the interpreter in only one direction. As the art of contest in poetic song, and given Nietzsche's courtly allusions to Goethe as noted above, or else – and more patently – to Wagner, it is important to explore the tradition of the troubadour. One might go still further afield to an unattested (but rather likely) connection with Frédéric Mistral, the Occitan poet who popularized the inventive Provençal tradition of poetry, and who was a contemporary of Nietzsche.[8] But we should also move slowly here, and not just for reasons of philological care (Nietzsche's *lento*). Thus, just as one might restrain the assumption that the clear erotic undercurrent along with the recurrent focus on shame in *The Gay Science* (Nietzsche concludes both Books II and III on the note of shame: "as long as you are in any way *ashamed* of yourselves, you do not yet belong to us" [*GS* 107] and, again, "*What is the seal of liberation?* No longer to be ashamed before oneself" [*GS* 275, see also *GS* 273 and 274]) entails Nietzsche's homosexuality,[9] a similar restraint is in order in this case as well. If Nietzsche himself claims the reference to the troubadours for his own part (and to this extent, the current reading is not speculation), the riddle of *The Gay Science* hardly reduces to this.

We need more than a recollection of the Provençal character and atmosphere of the troubadour in order to understand Nietzsche's conception of a joyful science, even if, given the element of a complex and "involuntary parody" (*GS* 382), the spirit of the Occitan certainly helps, especially where Nietzsche adverts to dissonance throughout (betraying the disquiet of the mistral wind as well as its seasonal relief). For nothing less than a critique of science understood as the collective ideal of scholarship, and including classical philology as much as logic, mathematics, and physics (Babich 2003, 1994), is essential for an understanding of the ideal of Nietzsche's gay science. A philological reflection on the origins of ancient Greek music drama had occupied

Nietzsche's first concerns with this general question as what he subsequently summarized as the "problem of science" in his 1886 reflections on his first book, *The Birth of Tragedy*. This was Nietzsche's declared discovery of the birth – in music and words – of tragedy in the folk song, in lyric poetry (*BT* 5, 17).

Seen from this perspective, *The Gay Science* articulates Nietzsche's life's work in terms of his scholarly achievements as well as his own deployment of the same: putting this "science" to work on his own behalf and taking this as far as the consummate promise of his troubadour's (and even Catharist) ideal of self-overcoming. This is the context of impossible love, the condemnation "never to love," as that intimate disappointment in which David B. Allison quotes Nietzsche's resolution to effect his own healing transfiguration (Allison 2001: 154). If the gay science is a handbook of song, it prefigures what Allison has delicately analyzed as what will become Nietzsche's recipe for inventing "the alchemical trick for transforming this – muck into gold" (Allison 2001: 115, cited from Nietzsche's letter to Franz Overbeck, December 25, 1882). If Nietzsche's self-therapy works for the love of a woman, for Lou Salomé, as Allison argues, it is because the alchemical transformation consummates *amor fati* – loving life, real life, not just "warts and all," but as intimately necessary to life, the whole gamut of illness and suffering, mis-recognition and disappointment, as well as death.

Nietzsche's gay science is a passionate, fully joyful science. But to say this is also to say that a gay science is a *dedicated science*: scientific "all the way down." This is a science including the most painful and troubling insights, daring, to use Nietzsche's language here, every ultimate or "last consequence" (*BGE* 22; *KSA* 13, 14[79]). Doubting just as well as Montaigne, doubting in a more radical fashion than Descartes, and still more critical than Kant or Schopenhauer, dispensing with Spinoza's and with Hegel's (but also with Darwin's and even Newton's) faith, Nietzsche's joyful, *newly* joyful, scientist carries "the *will* henceforth to question further, more deeply, stringently, harshly, cruelly, and quietly than one had questioned heretofore" (*GS*, preface, 3). Even confidence in life itself, as a value, of course, but also as such, now "becomes a *problem*." The result is a new kind of love and a new kind of joy, a new passion, a "new happiness."

The commitment of a joyful science includes body and mind (Descartes). Nietzsche does not distinguish these any more than he distinguishes between soul and spirit (Kant and Hegel). The reference to the body derives from Nietzsche's experience of suffering as an adventure in transmutation. This transfigured suffering or pain he calls "convalescence," reminding us of the influence of the body and its milieu – interior and exterior, physiological and ecological – in the purest aspirations of reason. Like Montaigne, again, if also playing off Spinoza and Leibniz, Nietzsche invokes the need for self-questioning and for self-experimentation precisely with an eye to the importance of physiological influences as these may be found on every level of thought, finally pronouncing philosophy nothing but an "interpretation" and "misunderstanding" of the body (*GS*, preface, 2).

As a philosopher in the fashion of the gay science, you can play or experiment with yourself in your own thinking, you can be the phenomenologist of yourself, varying the effects of health, illness, convalescence or the persistence of illness and pain on thought itself. For neither science, nor scholarship, nor philosophy, Nietzsche tells us, has ever been "about 'truth' " (*GS*, preface, 2). Each of these occupations, as Nietzsche

tells us, has always had some other motivation or aim in mind, e.g., "health, future, growth, power, life" (*GS*, preface, 2). Acknowledging the passions of knowledge heretofore, Nietzsche is at pains to argue that the ideal of objectivity is either a delusion of self-deceiving idealism or a calculated mendacity. Belief in such an ideal is the default of science altogether. In its place, Nietzsche argues against both the idea and the ideal of pure science, dedicated to sheer knowledge as if knowing should be its own end (*GS* 123), as he also argues against knowledge for gain and profit. In every case, his reference-point is the *noble* ideal of *la gaya scienza* (cf. *D* 308 and *BGE* 212). Contra the idealistic convictions of the "will to truth," and "truth at any price," Nietzsche dares the proposition that truth, once "laid bare," no longer remains true (*GS*, preface, 4). A gay science will *need* to know itself as art.

Reflecting on the title of Nietzsche's *Die fröhliche Wissenschaft*, Martin Heidegger has emphasized that metonymically tuned as it is in conjunction with science (*Wissenschaft*), the word *fröhliche*, happy or gay, light or joyful, evokes *Leidenschaft*, passion (Heidegger 1982: 20). In this way, Heidegger argues, Nietzsche's passionate, joyful science can be opposed to the dusty scholarship, let us call it the "grey science,"[10] of his peers. This same claim supports the surmise that, like *Beyond Good and Evil* and *Twilight of the Idols*, Nietzsche's joyful science was intended as a challenge to Wilamowitz (and thence contra philology as the discipline that had excluded Nietzsche's contributions).

The test of Nietzsche's joyful science, *amor fati*, finds its planned and executed exemplification in *Thus Spoke Zarathustra*, as well as in the retrospective song cycle appended to the later written fifth book of *The Gay Science*.[11] In this experimental fashion the promise articulated on behalf of music in *The Birth of Tragedy* might finally be fulfilled, as his reflections in *Beyond Good and Evil* and *Ecce Homo* suggest. If the "spirit of science" and techno-mechanical progress could be shown to have the power to vanquish myth (even if only with a myth of its own) and poetry (even if only with poetry of its own), the "spirit of music" might be thought – this remains Nietzsche's finest hope, it is his philosophical music of the future – to have retained the power to give birth once again to tragedy. Such a rebirth compels us to seek out the spirit of science precisely in terms of its antagonistic opposition to music's power of mythical creativity.

As preserved in written form, like Homer's epic song, like Greek musical tragedy, *la gaya scienza* corresponds to the textual fusion of oral traditions – composition, transmission, performance – in the now frozen poems of the troubadours. It is important, as with the ancient tradition of epic poetry, that the knightly art of poetry, the gay science as recorded in the fourteenth century,[12] presumed a much older tradition dating back to the twelfth or eleventh centuries earlier still.[13] This older legacy was the historical meaning of the *gai saber*. In parallel fashion, Nietzsche's discovery had been that the musical tradition of the folk song gave birth to the archetypical Greek tragic art form, a genealogy which was for Nietzsche to be descried in the rhythmic structures which he called the music of lyric poetry.

The spirit of music gives birth to tragedy, the tragic art and knowledge that are ultimately the metaphysical comfort of the artist (*BT* 25). In *The Gay Science*, Nietzsche articulates this "metaphysical comfort" as the distance and light of art (*GS* 339). By contrast with such a metaphysical or musical comfort, the comfort of the spirit of science is a physical one: "eine irdische Consonanz" (*BT* 17). In *The Gay Science*,

Nietzsche will analyze this saving grace, this working functionality as the reason that we, too, remain "still pious" (*GS* 344). Astonishing in its patent, empirical but insuperably contingent success, what "holds up" (*GS* 46) in science as the (technological) scientific solution to life is the gift of a *deus ex machina*, as Nietzsche clarifies the vision of Prometheus for us (*GS* 300), the "God of the machines and the foundries" (*BT* 17), put to work on behalf of a "higher" egoism, confident in the "world's correction through knowing", and of the viability of a "life guided by science" (*BT* 17) but above all, capable of concentrating the individual within the most restrictive sphere of problem-solving (the scientific method).

To illuminate the point of Nietzsche's allusion here, if Goethe's own Faust had been fixed together with the spirit of the Earth so densely summoned forth at the start and compelled to turn within the same circle, he might well have declared, in advance of the whole tragedy, I and II, "Ich will dich: du bist werth erkannt zu werden" (*BT* 17, cf. *GS* 1). For Nietzsche, as for the rest of us, the method at work – stipulation, mechanism, and above all delimitation, i.e., method *as such* – is the key to the modern scientific age. The same methodification is also the means whereby science becomes art, but to say this is also to say that science departs from theory alone, from its metaphysical heaven or perfection, to become practicable and livable, viable, as such.

However effective they are (and they are very effective as Nietzsche underscores), the expression of natural laws in human relations or numerical formulae (*GS* 246) remains a metaphorical convention: a Protagorean conventionalism Nietzsche famously compares to a deaf person's visually metaphorical judgment of the acoustic quality of music on the basis of Chladni sand/sound figures (*GS* 373), just as we today might reimagine the metaphor as the "music" of a digital music file deliberately downloaded as a text file or a CD hung as a lightcatcher.[14] In this way, when Nietzsche first sets up the opposition between art and science in terms of music and myth – in distinction to logic and calculative advantage – what is at issue is a proportionate achievement. As Nietzsche had argued in his first book, both art *and* science are ordered to life. Art seeks to harmonize dissonance, resolving it by transfiguration: not by elimination but rather by way of musical incorporation: "a becoming-human of dissonance" (*BT* 25). By contrast, especially in the guise of the technological science of modernity, as it begins with Socrates and the promise of logic and truth, mechanical or physical science effectively corrects or improves the world. Science thus substitutes an earthly consonance in place of the elusive promise of the tragic art, or music, which for its part offers no solutions to mortal problems (this is tragedy), only beautiful concinnities or harmonies (this is the art of music).

Nietzsche opposes, first, the failure of music in such a scientifically improved world; second, the self-deceiving truth of earthly consonance with respect to its own illusions (this would be a "lack" of science, beyond the praise for the probity of the thinker that compels him to turn to science [*GS* 335]; this would be "the good, stupid will to 'believe'" which Nietzsche challenges as a "lack of philology," that is, "the lack of suspicion and patience" [*BGE* 192]).

When modern scientific rationality (*GS* 358) turns its eye on suffering, it conceives and so reduces suffering to a problem to be solved (*UM III*, 6). There is a whole skein of difficulties here for Nietzsche, beginning with the question of the nature and extent of suffering (psychic or physical, cultural or historical) and including the quality and

character of comfort and relief. The compassionate and tragic element will always be important for Nietzsche, a sensitive pathos he shared with Schopenhauer. But beyond Schopenhauer, Nietzsche would also argue that the problem of suffering eludes ameliorating reduction for the very reason that a solution to the problem of suffering also and inevitably elides the whole fateful range of what belongs to suffering (*GS* 338). This is a complex point and it does not mean that Nietzsche was in favor of passively enduring suffering, much less inflicting it. But to strip off the multilayered, complex covering of truth is also to dissolve what is true (*GS*, preface, 4), in the same way that Rome as an empire came to dominate its world, to use Nietzsche's example of cultural supremacy (for a contemporary example, we can think of what we call "globalism"). Imperial Rome blithely obliterated the traces of its past (or, better, the past of its predecessors) without the slightest inkling of bad conscience (if also with baneful consequences for the science of history): "brushing off the dust on the wings of the moment of the historical butterfly" (*GS* 83). In one's own life this is the inscrutability of suffering (and is that which gives suffering its *meaning*) (*GS* 318). More critically, it is the problem of the meaning and significance of suffering for another (this is the problem of other pains, as it were) (*GS* 338). In this reflection, key to the notion of the eternal return, Nietzsche touches upon the deep relation of suffering to happiness as well as everything that suffering necessitates and makes possible. Nietzsche's appeal to the "higher ethic of friendship" (*KSA* 8, 19[9]) presents a challenge to contemporary expressions of the ethics of care and of compassion: "I want to teach [ . . . ] what is understood by so few today, least of all by the preachers of pity [*Mitleid*]: *to share not suffering but joy* [*Mitfreude*]" (*GS* 338).

Nietzsche's gay science of morality is complicated precisely because he is interested less in promulgating a moral theory than in questioning the presumptions of the same. For Nietzsche, questioning is the most important element in science. Nietzsche confesses as his personal "injustice" his very scientific conviction that everyone must somehow, ultimately *have to have* this "Lust des Fragen" (*GS* 2). In other words, Nietzsche permitted himself to believe that everyone was in some measure possessed by a desire for questioning, indeed a passion for questioning "at any price" (*GS* 344).

## Science and *Leidenschaft*

Reviewing the motivations of established scholarship, i.e., a job, a career, dusty and bored with itself ("lacking anything better to do"), the "scientific drive" of traditional, grey scientists turns out to be nothing but "their boredom" (*GS* 123). By contrast what Nietzsche calls "the passion of the knowledge seeker" is a very erotic drive: a drive for possession. This is acquisitive to the point of abandon, "yearning for undiscovered worlds and seas" (*GS* 302), completely lacking selflessness, lacking disinterest, and in place of the ideal of scholarly detachment, "an all-desiring self that would like, as it were, to see with the eyes and seize with the hands of many individuals – a self that would like to bring back the entire past, that wants to lose nothing it could possibly possess!" (*GS* 249). So far from science's celebrated objectivity and neutrality (*GS* 351), "the great *passion* of the knowledge seeker" is a matter of intimate and absolute or utter cupidity (*GS* 249, 345). As Nietzsche regarded this passionate drive from the

perspective of nobility (*GS* 3), the archaic quality of Nietzsche's joyful passion is ineluctably alien to modern sensibilities – if simply and fundamentally because (and this is what Nietzsche always understood by the ideal of nobility) the cupidity or desire of gay science is a non-venal one (*GS* 330). Nietzsche explains this passion as the passion of one "who steadfastly lives, must live, in the thundercloud of the highest problems and the weightiest responsibilities (and thus in no way an observer, outside, indifferent, secure, objective [ . . . ])" (*GS* 351). The passion of this quite Nietzschean vocational ideal influenced not only Max Weber, who is usually associated with it, but Martin Heidegger as well.

Both science and art draw upon the same creative powers, both are directed to the purpose of life, and, most importantly for Nietzsche, both are illusions. Denying a Platonic world of noumenal truth, there is for Nietzsche only nominal truth (*GS* 58) – sheer illusion – but no noumenon. Indeed what is key to Nietzsche's inversion of Plato/Kant (i.e., Christianity), is that without the noumenal, there is no phenomenal world; without metaphysics, no physics. The world is mere will to power, chaos, and nothing besides (*GS* 109). The only truth is illusion, and there is no truth beyond illusion. But this is Schopenhauer's world, not Kant's. To make any headway with this, one needs a non-Western logic, the logic of the veil of Maya. But to say this, for the Nietzsche who always remains a scientist, ultimately means that one is grateful to art.[15]

But what is science? Science is routinely presumed to be a matter of method (and quantifying analysis) and it was exactly the character of science as method that Nietzsche had in mind. Hence in the context of his early (and later) reflections, when Nietzsche proposed to examine "the problem of science" what he meant by science presupposed its broadest sense (*Wissenschaft*) because what he wanted to address was nothing less than the specifically *scientific* character of science. For this reason too, Nietzsche's talk of science with regard to aesthetics and philology (i.e., in his book on tragedy) inevitably exceeded aesthetic philology (or literary classical theory) in its scope and works and brought Nietzsche to speak of logic, rationality, and even of the mechanized way of life of modernity, in order to speak, in the classical mode, of the contemporary possibilities of Western culture.

It is the meaning of science that remains problematic here. Very few scholars have adverted to the problems of the compound construction of a "gay science." Among the few who have, Heidegger, in asking "What does *gay science* mean?," reminds us that Nietzsche's "science [*Wissenschaft*] is not a collective noun for the sciences as we find them today, with all their paraphernalia in the shape they assumed during the course of the last century" (Heidegger 1982: 20). Nietzsche's conception of a gay science is thus opposed to the nineteenth-century ideal of the positive, measuring, or technologically defined sciences. By contrast with modern science and its calculative technologies (where physics is *the* paradigmatic science), the passion of Nietzsche's *fröhliche Wissenschaft* "resounds" like "the passion of a well grounded mastery over the things that confront us and over our own way of responding to what confronts us, positing all these things in magnificent and essential goals" (Heidegger 1982: 20). As we have already suggested, in order to make some headway with the question of this passion for knowledge, a gay science requires the art of love. And the erotic art must be learned, so Nietzsche argues, exactly as we learn to love anything at all.

Nietzsche's example for such learning is music itself: the cultivated love of which is, like every other art of love, an acquired passion (*GS* 334). Indeed, for Nietzsche, only such a cultivated passion for knowledge has a justifiable claim to the title of science. In this sense, a supposed science of music apart from the art of music, apart from "what is music in it" (*GS* 373), would not be merely abstract. Blind and empty, a tone-deaf musical science would not be a science worthy of the name (*GS* 374).

## The Music of the Gay Science and the Meaning of *Wissenschaft*

Regarded as a symptom of life, science, Nietzsche argued, could well constitute a "subtle form of self-defense against the truth" (*BT*, "Self-Criticism," 1). Suggesting that truth (and the will to truth) might be less than salutary, Nietzsche opposes both Socratic rationality (better living through science) and Christianity (truth saves). For the same reason, the task of presenting "*the problem of science itself*, science considered for the first time as problematic, as questionable" exposes the thinker to the danger of truth (*BT*, "Self-Criticism," 2). We recall Nietzsche's description of his own first book's grappling with what he called a "problem with horns." Ignoring the focus on science as problematic, scholars have routinely argued that Nietzsche's attempt "to view science through the lens of the artist and art through that of life" was not addressed to what we take to be science today, not natural science, not *real* science.

Walter Kaufmann sought to assure us that the science in Nietzsche's *The Gay Science* has nothing to do with *science* per se but rather and only refers to the troubadour's art, just as noted above. And it is quite clear that Kaufmann is not uncovering an obscure detail but one Nietzsche himself emphasizes, not only indirectly but on the title page to the second edition as well as in his later writings and throughout his *Nachlass* notes (complete, as we have already seen, with schematizations of the song forms). Indeed, if anything Kaufmann's gloss tells us *less* than Nietzsche does. For *The Gay Science* manifestly refers to the troubadour's art. But what art of song was that to be for Nietzsche? Was that the art of the famous Jaufré Raudel (ca. 1125–8) or Guiraut Riquier, the so-called "last" of the troubadours?[16] Or was it the lyre song of Homer's Achilles? Or Pindar's "crown"[17] of song? Or Machiavelli's musical art? Or are we merely speaking of Orpheus? Or Wagner? Or, and this solution is still the favorite amongst most readers, are we speaking of Nietzsche himself, when he claimed that one *should* range his Zarathustra under the rubric of music, and given the portents of his concluding incipit in *The Gay Science*? At the very least, it would seem that Nietzsche aligns the gay science, as the art of the troubadour, with the ancient musical art of tragedy, as Nietzsche sings himself the song of his songs – and including the troubadour's *serenas* or evensong, or, given the context of music and Venice, his planctus (*planh*) – in his *Ecce Homo*.[18]

For Nietzsche, as for any German, both in his day and our own, the term *Wissenschaft* or science applies as much to historical studies of ancient philology as to the natural sciences.[19] Where the problem of science *qua* science, i.e., the problem of the scientificity of science, also corresponds to the logical problem of reflexivity, the general problem of science as such – both natural (and phenomenological) and philological (and

hermeneutical) – calls for critical reflection. Nietzsche had argued that science as such (including the natural, physical sciences, as well as mathematics and logic) cannot be critically conceived (or founded) on its own ground; nor indeed (and this was Nietzsche's most esoteric point as a hermeneutic of hermeneutics) can philology be so founded. It was because he wrote as a philological scholar, as a *scientist*, by his own rigorous definition of the term, that Nietzsche could regard his methodological considerations as directly relevant to the "problem of science."

We may note that, in distinction to the narrow focus of the English *science*, the inclusiveness of the German *Wissenschaft* illuminates the parallels between Nietzsche's self-critique and Kant's expression of metaphysics in terms of a science of the future (as a future metaphysics). Thus it is important to affirm that the present author is well able, as others seemingly are not, to assume that Nietzsche had "read" Kant. We betray our own prejudices when we assert that Nietzsche *could not* have read Kant or argue that he could only have gotten his Kant second-hand, via Schopenhauer or Lange. For Nietzsche, the achievement of Kant's critical philosophy was to engage the logical contradictions of the logical optimism of modern science. For Nietzsche, Kant's critical philosophy, which conceives "space, time and causality as entirely unconditioned laws of the most universal validity," demonstrated that these same concepts "really served only to elevate the mere phenomenon [ . . . ] to the position of the sole and highest reality, as if it were the true essence of things" (*BT* 18). Logical optimism is the positivist confidence that knowledge is both possible (in theory) and attainable (in practice). We still subscribe to the same optimism in our ongoing conviction that "all the riddles of the universe can be known and fathomed" (*BT* 18) and thus we faithfully denounce anyone who criticizes this conviction in the slightest as anti-scientific and willfully obscure.

Yet here the question of the meaning of *Wissenschaft* for Nietzsche (as for Kant, Hegel, and even Goethe but also Marx, Freud, Weber, Husserl, Heidegger, etc.) remains elusive. For if the *fröhlich* in the title of *Die fröhliche Wissenschaft* has required our attention, taking us to passion (with Heidegger) but also taking us to a willingness to dance over the abyss of unreciprocated or failed love or the dark neediness of the soul (with Allison), and ultimately to Nietzsche's own concerns as he summarizes these for us, daring the dangerous play of experimental questioning (*GS* 374), the meaning of *Wissenschaft* turns out to be similarly complicated. It is worth asking, again, what Nietzsche really means by science, be it gay or otherwise.

Intriguingly, although it is routinely observed that the German term *Wissenschaft* and the English word *science* ought to be distinguished, commentators tend not to explicate the difference in question. Each word carries its own penumbra of meaning and substitutions, articulating on each side a divergent range of associations, both metonymic and metaphorical. Dating from the fourteenth century, the term *Wissenschaft* was coined in German for the needs of a theological and mystical context in order to translate the Latin *sciens*, *scientia*, terms given as *science* in English, and related to *scire*, to know, *scindere*, to cut or divide. Key here in understanding *Wissenschaft* is the set of associations of the root terms, in particular the powerful etymological array via *wissen* linked to the Old High German *wizzan* and Old Saxon *wita* but also the English *wit* and *wot* and thence to the Sanskrit *vēda* and the ancient Greek *οἶδα* as well as the Latin *videre*.[20]

However, it is only from the eighteenth century that the current meaning of the sciences can be dated (that is, as distinct from the arts in the characteristically Anglo-American contrast between *the arts* and *the sciences*). If it can be argued that the meanings of *Wissenschaft* and *science* now and increasingly tend to coincide, *Wissenschaft* yet remains unquestionably broader, as it corresponds to the collective pursuit of knowledge kinds. This collectivity is the meaning of *-schaft*, analogous to the suffix *-ship*, as in scholarship (a term that only partially renders *Wissenschaft*). As the noun corresponding to *wissen*, *Wissenschaft* also retains connotations of the "ways" or conduits of knowing, ways that can still be heard in English with the archaic *wis* (to show the way, to instruct) or *wist* (know).

At a minimum, the above reflections remind us that, although Nietzsche's identification of himself as a "scientific" practitioner strikes a contemporary English speaker as eccentric, routinely calling forth at least a footnote (if not whole books on source criticism) designed to explain the problem away, remanding it to the conventionality of the history of ideas and influences, his identification of his research interests as "scientific" would still be accurate in contemporary German usage. But this is exactly not to say that all Nietzsche was talking about was his own disciplinary field. For Nietzsche, as should now be clear, what made his own discipline scientific was what made any discipline scientific.

The problem is not at issue in German readings of Nietzsche (although a parallel remains in German contributions to epistemology and the philosophy of science to just the degree that these fields continue to be received as Anglo-Saxon disciplines). The problem is in understanding Nietzsche's references. And the problem is the problem of equivocation. For in spite of all the well-known rigor of the study of classics, we are hard pressed to see classics as a "science" per se. For this reason, when Nietzsche, a classicist, speaks of himself as advancing science, we do not quite take his reference except by putatively broadening his claim to an assertion about "scholarship" in general, but by which we mean literature, and particularly classical philology and then, following Wilamowitz's academically devastating critique of Nietzsche's supposed innovations, not even that (see Wilamowitz-Möllendorff 2000, and, further, Porter 2000).

Nietzsche poses the question of science not as a resoluble but much rather as a critical problem. As a critical project, Nietzsche adverts to the stubborn difficulty of putting science in question – the difficulty of questioning what is ordinarily unquestionable. Science, indeed, as presumptive authority and as "method," is ordinarily the ground or foundation for critical questioning. For this same critical reason, Nietzsche holds that the project of raising "the problem of science itself [ . . . ] as a problem, as questionable" (*BT*, "Self-Criticism," 2) was a task to be accomplished over time, not merely a point to be made, or a problem to be remedied.

If he liked to assert that he aspired to a more radical doubt than Descartes, and if he was more critical than Kant in calling for the reflexivity of the critical project to be turned against itself, Nietzsche nonetheless differs from the Enlightenment project of philosophical modernity in general. Thus Nietzsche *does not* exclude his own deliberately provocative solution as a problem at the limit of critical reflection. Instead, Nietzsche presupposes an unrelenting self-critique, precisely for the sake of science.

Self-criticism, critique of one's tacit assumptions, has to be a constant attendant to philosophical critique but – and Nietzsche is just as quick to remind us of this – where are we to position ourselves for the sake of such self-critique? Raising the question of the subject, challenging that there is nothing that thinks, the Archimedean standpoint provided by the Cartesian thinking subject is suspended where it emerges – in the middle of nowhere – and this is, if it is nothing else, a questionable foundation. The result is the giddiness Nietzsche claims as endemic to the modern era, an era without definable up and down (and the orienting disposition of the same to above and below), without belief in God, and increasingly lacking even the firm foundation of the ultimacy of the human subject.

## Gay Science: Passion, Vocation, Music

As a *Leidenschaft* in Heidegger's sense, Nietzsche's science opposes the usual conception of either science or scholarship, even and perhaps especially philosophy (even if, as Nietzsche remarks, philosophy is the discipline named for love or passion). Nietzsche's gay science is not just relevant to science in general but is exactly to be understood in opposition to the nineteenth-century ideal of the positive, measuring, or technologically defined sciences.

If this were an armchair problem of the classically metaphysical kind we could let it go at that: as a puzzle of the ordinary Kuhnian kind; science as Popperian problem-solving. But because the problem is the problem of science as the "theory of the real" (see *GS* 57), we have been attempting to take it by its figurative horns, in the very spirit of Nietzsche's own metaphorical invocation of the Cretan art of bull dancing (*BT*, "Self-Criticism," 2). The horns of this dilemma may also remind us of Nietzsche's polemical language in his preface to *Beyond Good and Evil*, whereby all of us, as philosophers and as scientists/philologists, conceived as impotent, or at least as inconsequential, suitors of the truth, are also crowned with all the allusions to the liar that are inevitable with reference to Nietzsche or even, thinking of Ariadne, to Theseus himself. But here, our ambition is more sober than trivial matters of scholarly pride, or what Nietzsche called "scientific pedantry." An unquestioning inattention to modern science and technology continues to rule in modern confidence, that is, in what Nietzsche called our "convictions."

For Nietzsche, we explain (or as he takes care to specify, we "describe") everything with reference to ourselves and our own motivational intentionality; consequently and inevitably (here Nietzsche goes beyond *both* Kant and Schopenhauer), we fashion (or invent) the very concept of a cause, and thereby misconstrue both the world *and* ourselves in a single blow (*GS* 112). Nietzsche argues that "The sole causality of which we are conscious is that between willing and doing – we transfer this to all things and signify for ourselves the relationship of two alterations that always happen simultaneously. The *noun* is the resultant of the intention or will, the *verb* of the doing. The animal as the creature that wills – that is its essence" (*KSA* 7, 19[209]). Like the sand patterns of the Chladni sound figures that so captivated Nietzsche's imagination, the question of science can be raised in terms of music, not only in terms of the troubadour's

musical art but also in terms of its remainder. This is its ineffable residue, sedimented in the words that still remain to be sung.[21]

In *The Gay Science*, Nietzsche outlines a critical revision of the standard genealogy of science out of the spirit of myth and magic and alchemy, as he also finds science modeled on the occluded paradigm of religion (*GS* 300; *GM* III. 25). Nietzsche does not merely parallel science and religion in terms of both faith and ultimate goals, that is, piety and metaphysics (*GS* 344) but in Book II, in a rarely remarked upon aphoristic tour de force, Nietzsche plays between science and religion and the prejudices proper to both. Thus Nietzsche tells a parable to explain (and not quite to denounce) an earlier era's wholly scientific (one thinks of the Jesuit scholar Robert Bellarmine) resistance to Galileo and to Copernicus and so on. In the very way that the noble passion of love and the purity of the lover – the same purity that forgives even the visceral vigor of lust itself, as Nietzsche notes (*GS* 62) – would be disinclined to wish or to be asked to imagine the inner guts of the beloved, the whole network of tissue and blood and nerves in all their glistening truth, so the believer had, in times gone by, a similar lover's horror with respect to the divine sensorium. In earlier, more religiously (as opposed to more scientifically) pious times, one recoiled from the viewpoint that would reveal the beloved: the cosmos and thus God himself, laid bare by the incursions of telescopes and astronomical theory: "In everything that was said about nature by astronomers, geologists, physiologists, and doctors, he saw an intrusion on his choicest property and thus an assault – and a shameless one on the part of the attacker" (*GS* 59). We see here the sensitivity of Nietzsche's rhetorical style at work: beginning where "all the world" knows its way around and knows all about (love and love affairs), Nietzsche's parable carries the reader to a more esoteric insight (into scientific cosmology and the trajectories of its historical contextuality and thence to philosophy).

For the sake of the philosophical question of truth and logical rationality, Nietzsche raises the question of science as the question of the measure of the world of real and not ideal things. For Nietzsche, just as one cuts away the metaphysical domain of the noumenal, real/ideal world and loses the phenomenal world in the same process, the clarification of the human being in modern scientific, evolutionary, and physiological terms also works to eliminate the pure possibility of knowledge as such. If what works in us are tissues and cells, genes and evolutionary history, associations and habits, then we cannot speak of knowledge, and certainly not "reality." The problem is worse than a Kantian conceptual scheme, space-time, causality, etc.; the problem is the inmixture of ecology, physiology, and electro-chemical processes. Thus Nietzsche can conclude: "There is for us no 'reality' " (*GS* 57). When, in the following section, Nietzsche goes on to detail his radical nominalism he is not merely invoking the sovereignty of human invention but its impotence. Thus he declares his conviction "that unspeakably more lies in what things are called than in what they are" (*GS* 58). Moreover: "appearance from the very start almost becomes essence and works as such." But cutting through all of this is itself a proof of its efficacy and origin and, above all, "it is, we should not forget, enough to create new names and estimates and probabilities in order to create new 'things' in the long run" (*GS* 58). This poetic creativity is the ultimate meaning of the troubadour's art (*trobar*, an etymologically disputed term, meaning invention but also related to tropes and their variations) as a science: it is the heart of what Nietzsche called *la gai saber*.

For Nietzsche, "all of life is based on semblance, art, deception, points of view, and the necessity of perspectives and error" (*BT*, "Self-Criticism," 5). Nietzsche saw that the critical self-immolation of knowledge ("the truth that one is eternally condemned to untruth," *KSA* 1[760]; "On the Pathos of Truth," 65) that stands at the limit of the critical philosophic enterprise is to be combined with the sober notion that insight into illusion does not abrogate it and, above all, such insight does not mean that illusion lacks effective or operative power. To the contrary, "from every point of view," Nietzsche argued, "the *erroneousness* of the world in which we live is the surest and the firmest thing we can get our eyes on" (*BGE* 34). Nor, as we have traced the etymology of *Wissenschaft*, is this visual metaphor an incidental one here. For Nietzsche, to regard the body as a complex knowing instrumentarium, widely keyed to all its senses and not restricted to sight alone, offers an understanding of the body itself as mind, that is, not opposed to the mind, and not imagined as a Cartesian or Lockean adjunct to the mind, but, writ large and veritably Hobbesian (if beyond Hobbes), a "great reason, a plurality with one sensibility, a war and a peace" (*Z* I, "On the Despisers of the Body"). Nietzsche continues: "The tool of your body is also your little reason, my brother, which you call 'spirit,' a little tool and plaything of your great reason." With even more Kantian clarity, we hear: "There is more reason in your body than in your reason" (*KSA* 10, 4[240]). Nietzsche thus sets the body in contrast to the intellect, our "four-square little human reason" in the materialist context of empirical science (*GS* 373).

As a physician of culture, the philosopher is to be an artist of science, a composer of reflective thought, refusing the calculations of science as the thickness deadly to the "music" of life (*GS* 372, 373). Refusing such calculations, the gay science promotes a more musical, more passionate science. In this way, the "only" help for science turns out to be not more science or better scientific understanding but the therapeutic resources and risks of art. The goal is not a more charming, comic or "light" science but a science worthy of the name: a gay science with the courage truly to question, resisting what Nietzsche analyzes as the always latent tendency of degraded and ordinary science, grey science as I have been calling it, to rigidify into either dogma – "You must be mistaken! Where have you left your senses! This cannot be true!" (*GS* 25) – or empty and mindless problem-solving, "an exercise in arithmetic and an indoor diversion for mathematicians" (*GS* 373). What Nietzsche means by thinking in the critical service of science (as the artful "mastery" of this newly won gay science) can only be expressed in its contextual connections to topics in other kinds of philosophic reflection traditionally regarded as distinct. One allies laughter and wisdom, rejoining art and science because, for Nietzsche, the problem of science corresponds to the problem of art and life.

It is for this reason that one always misses the point when one maintains that Nietzsche is either "for" or "against" science. Instead, Nietzsche's interpretive touchstone contrasts what affirms mortal life on this earth with what denies that life. But because mortal life includes sickness, decay, and death, this tragic perspective opposes the nihilism (be it mystico-religious or rational-scientific) which would seek, as does religion, to redeem or else, as does science, to improve life because *both* perspectives turn out to *deny* mortality (suffering, frustration, death – an emphasis common to the troubadours as well as ancient Greek music drama or tragedy and, indeed, opera).

Nietzsche's philosophy of science addresses the problem of mortal life without seeking to solve it. For Nietzsche, "knowledge and becoming" (truth and life) mutually and incorrigibly exclude each other (*KSA* 12, 9[89]). Thus, to say that "our art is the reflection of *desperate knowledge*" (*KSA* 7, 19[181]) is to set art and knowledge on the same level and for this same reason: both art and knowledge can be used either against life or in the service of life (and we recall that "life" is the "woman" of Nietzsche's troubadour song in *Thus Spoke Zarathustra* (see too *GS* 229). But when Nietzsche writes in *The Gay Science* that "*science* can serve either goal" (*GS* 12), he cannot be articulating a traditionally naive expression of science's celebrated neutrality, as we have seen. Instead, and precisely as a logical or theoretical project, science is the kind of art or illusion (or convention) that remains inherently nihilistic. Because science (as such) is not objectively neutral, science must *always* be critically reviewed not on its own basis (this cannot be done) but rather on the ground of what makes science possible, and that is what Nietzsche originally named the "light" of art.

Only art gives us perspective on things, only art permits us to see things from the proper distance. This is the knowledge proper to the art or science of rhetoric. That same optic – or perspective prism, to allude to a Goethean metaphor for Nietzsche's own approach to science – focuses on life regarded in such a way that it can be seen in all its shifting complexity: "At times we need to have a rest from ourselves by looking at and down at ourselves and from an artistic distance, laughing *at* ourselves or crying *at* ourselves; we have to discover the hero no less than the fool in our passion for knowledge; we must now and then be pleased about our folly in order to be able to stay pleased about our wisdom" (*GS* 107).

This joyfulness (or gaiety) is what Nietzsche encourages us to learn from "the artists," and in the same manner as we learn from physicians how best to down a bitter drink: by thinning it, to diffuse or veil it, or by mixing sugar and wine into the potion (*GS* 299). Art has at its disposal a variety of means for *making* things beautiful, alluring, and desirable, precisely when they aren't – for "in themselves, they never are" (*GS* 299) Here Nietzsche calls upon us to be wiser than, to go further than, the artist who forgets his magic at the point where his art leaves off: "We however want to be the poets of our lives, and first of all in the smallest and most everyday way" (*GS* 299).

As "the actual poets and authors of life", this poetizing would extend to a benediction of life, as it is, *amor fati*. Promising to bless life, Nietzsche made this his own St. January resolution of the great year of eternity, "I want to learn more and more how to see what is necessary in things as what is beautiful in them – thus I will be one of those who make things beautiful" (*GS* 276). This alliance of science (necessity) and art (creativity) is the art of living, the achievement of Nietzsche's gay science.

*See also* 3 "The Aesthetic Justification of Existence"; 13 "The Incorporation of Truth: Towards the Overhuman"; 15 "The Body, the Self, and the Ego"; 17 "Naturalism and Nietzsche's Moral Psychology"

## Notes

1 Translations are my own, modified to accord, as much as possible, with the usage of Josefine Nauckhoff's translation of *The Gay Science*.

2 The title plays off many things, particularly Wagner's *Meistersinger*, but it also alludes to Walther von der Vogelweide, especially as Nietzsche had heard a course on his poetry during his time at the University of Bonn.

3 That one should take this "chaste" character lightly seems advisable. See Bec (2003) and de la Croix (1999). Nietzsche himself corroborates this erotic dimensionality in a note where he affirms the "*Provençale*" as a "highpoint" in European culture just because they were "not ashamed of their drives" (*KSA* 10, 7[44]). Despite the appeal of identifying Nietzsche's "immortal beloved" with Lou Salomé or tracing his passions for the boys of southern Italy, as some have speculated, it is more likely that the addressee of the love songs of Nietzsche's "gay science" would have been Cosima Wagner. I say this not because I am personally especially persuaded of Cosima's charms but because of the very nature of the gay science. The ambiguous coding of the troubadour's message was for public display: a love song in the direct presence of the beloved's husband, who, for good measure, would also be one's own patron. For a study of this coding see Zumthor (1975).

4 Number 7 of these rhymes is entitled "*Vademecum – Vadetecum*," literally "go with me" and "go with yourself." For the collective title of rhymes taken as a whole, the reference is Goethe's *Singspiel* from 1784, originally set to music in 1785 by Goethe in collaboration with the composer Philipp Christoph Kayser. In 1799 E. T. A. Hoffman wrote stage music for Goethe's lyric play, but in connection with Nietzsche it is especially significant to note that among Max Bruch's first compositions included the music for Ludwig Bischoff's 1858 adaptation of Goethe.

5 Due to its non-modern quality, this anti-lyrical (i.e., a-personal) lyricism absorbed Nietzsche's interest in *The Birth of Tragedy*. See *BT* 5.

6 The *tenso* is regarded as the model for scholastic reasoning. See Aubrey et al. (1999: 335). Some part of the justification for this association is found in Peter Abelard's compositions, compositions which Héloïse recalls to him as seductively enchanting and which, as he tells us in his own reflections on his "calamities," he directed into philosophy. Although apart from Héloïse's recollection of them to us and his own allusions, Abelard's secular songs have been lost, his sacred songs have been transmitted.

7 "*Albas* – Morningsongs; *Serenas* – Evensong; *Tenzoni* – Battlesongs; *Sirventes* – Songs of Praise and Rebuke; *Sontas* – Songs of Joy; *Laïs* – Songs of Sorrow" (*KSA* 9, 11[337]).

8 Marcel Decremps (1974) has traced this connection from Herder onwards.

9 Joachim Köhler, among others, has made the case for this claim, but it is complicated because, as David B. Allison and Marc Weiner have also shown, another argument for a similarly shameful eroticism, namely autoeroticism, can also be made. See Köhler (2002), Allison (2001), and Weiner (1995: 335–47).

10 I use the term "grey science" for reasons of assonance and contrast. Nietzsche characterizes Platonism in terms of its "grey concept nets" (*BGE* 14), yet he also invokes the color grey, especially silver grey among his many declared "favorite" colors. Yet Nietzsche's grey is not the grey of Hegel's night of obscurity but of distinctions. The grey of context and differentiation, Nietzsche's hermeneutic grey, as he remarks in an arch reference to Paul Rée in his preface to *On the Genealogy of Morals*, serves to outline "the whole, long hieroglyphic text, so difficult to decipher of humanity's moral past!". This grey of shades and differentiations makes a pencil sketch or pen-and-ink drawing more precise than even the most colorful photograph for scientists concerned with pragmatic details, as in a medical handbook.

11 Nietzsche's *Thus Spoke Zarathustra* begins with a dawn song (*Albas*) exemplifying another of Nietzsche's master song cycles, in addition to the instantiation of, and ironic variation upon, the more typical troubadour's dawn song (which was traditionally more a song sung less to greet the new day than to mourn the close of the alliances of the night, as the

hours steal into the claims of the day) in the *Songs of Prince Vogelfrei*, "Song of a Theocritical Goatherd."

12 This refers to the *Leys d'Amor* – laws of love – a work compiled in Toulouse by seven troubadours who established the Académie littéraire de Toulouse ou Consistoire du Gai Savoir, a group that transmitted the poetic code of the *gay saber*. On the relation to law see Goodrich (2001: 95–125).

13 Regarding the troubadours see Treitler (2003) and Aubrey (1996). For a discussion of the distinction between vocal and unaccompanied song in the context of the tradition of musical accompaniment, see Page (1976) and Zumthor (1975).

14 The full context here is as follows "The *human being* as the measure of things is similarly the basic concept of science. Every law of nature is ultimately a sum of anthropological relations. Especially number: the quantitative reduction of every law, their expression in numerical formulas is a μεταφτρά, as someone one who lacks the ability to hear judges music and tonality according to the Chladni sound patterns" (*KSA* 7, 19[237]).

15 The critical distance Nietzsche maintains with respect to Buddhism may thus be understood with respect to his own rigorously "scientific" temperament. See *GS* 78, 299, 301, 339.

16 See Aubrey et al. (1999: 277–9), "Les Troubadours."

17 For a discussion of this particular metaphor see Steiner (1986).

18 The *planh* is the troubadour song sung to lament the death of the singer's "master" or protector. Although the setting of Nietzsche's Venice poem in his *Ecce Homo*, "On the Bridge . . ." is twilight and thus would seem to be a plain evening song, it may also be regarded as a lament for Wagner, who died in 1883. The 1886 poem, "My Happiness" ("Mein Gluck!"), included in the *Songs of Prince Vogelfrei* would also seem to make reference to this death. For further discussion of Nietzsche's Venice poem, including its association with Wagner, and in the context of Nietzsche's recollection of Hölderlin, see Babich (2000: 267–301).

19 For a longer consideration of Nietzsche and "science" see Babich 1994 and 2003.

20 As a philologist, Nietzsche was characteristically conscious of this root connection between vision and scientific knowledge – hence his focus on the ocular tendency of science in general – but especially natural science. See the following note: "Science aims *to interpret the same phenomenon through different senses* and to reduce everything to the most *exact* sense: the optical. Thus do we learn to understand the senses – the darker are illuminated by the lighter" (*KSA* 11, 25[389]). And it might be worth investigating the degree to which this ocular conception inspired both his focus on what he called the "science of aesthetics" in his first book, his emphasis upon the importance of the haptic sense in the physical sciences (cf. *TI*, " 'Reason' in Philosophy," 3), and his special attention to the sense of "taste," a focus he earlier played back to its etymological association with wisdom as such. The Greek word which signifies "wise" etymologically belongs to *sapio*, I taste, *sapiens*, the one who tastes, *sisyphos*, the man of the keenest taste; a keen ability to distinguish and to recognize thus constitutes for folk consciousness, the authentic philosophical art. Be it deliberate or not, Nietzsche's example remarkably parallels David Hume's reflections on aesthetic taste. I discuss this further in Babich 2003.

21 Like the problem of the "music" of ancient tragedy, the problem of the "gay science" turns out to be the problem of the "music" of the troubadours' songs. The performative parallel to the Homeric problem is clear: there are thousands of preserved songs – and this is only part of the originally greater song tradition, recorded centuries after its heyday – and only a fraction of these preserved songs have written indications of musical melodies. An intriguing application of digital analysis offers some support for Nietzsche's own conviction that the words themselves constitute the music. See Hardy and Brodovitch

(2003: 199–211). The authors use the computer's capacity for phonetic analysis not by relying on transcription into modern linguistic phonetic conventions but by invoking instead Robert Taylor's observation that "Old Occitan is largely phonetic; that is, in most cases, the spelling reflects the actual pronunciation" (in McGee et al. 1996: 105). The literally phonetic quality of Provençal (as opposed to modern French) makes it possible to teach (shades of Nietzsche's own usage) computers "to 'hear'." See *Zarathustra*, prologue, 5. Nietzsche here is inverting Aristotle's reference to the use of proportional metaphor in his *Rhetoric* (bk. III, 10 and 11) for helping one's hearers "see."

## Editions of Nietzsche Used

*Beyond Good and Evil*, trans. Walter Kaufmann (New York: Vintage Books, 1966).
*The Birth of Tragedy*, trans. Walter Kaufmann (New York: Vintage Books, 1967).
*The Gay Science*, trans. Walter Kaufmann (New York: Vintage Books, 1974).
*The Gay Science*, trans. Josefine Nauckhoff (Cambridge: Cambridge University Press, 2001).
"On the Pathos of Truth" (1872), in *Philosophy and Truth: Selections from Nietzsche's Notebooks of the Early 1870s*, ed. and trans. Daniel Breazeale (Atlantic Highlands, NJ: Humanities Press, 1979), pp. 61–9.
*Thus Spoke Zarathustra*, trans. R. J. Hollingdale, 2nd edn. (Harmondsworth: Penguin, 1969).

## References

Allison, David B. (2001). *Reading the New Nietzsche* (Lanham, MD: Rowman & Littlefield).
Aubrey, Elizabeth (1996). *The Music of the Troubadours* (Indianapolis: Indiana University Press).
—— et al. (1999). "Les Troubadours," in Françoise Ferrand (dir.), *Guide de la musique du moyen âge* (Paris: Fayard).
Babich, Babette E. (1994). *Nietzsche's Philosophy of Science: Reflecting Science on the Ground of Art and Life* (Albany: State University of New York Press).
—— (2000). "Between Hölderlin and Heidegger: Nietzsche's Transfiguration of Philosophy," *Nietzsche-Studien*, 29, pp. 267–301.
—— (2003). "Nietzsche's Critique of Scientific Reason and Scientific Culture: On 'Science as a Problem' and 'Nature as Chaos'," in Gregory Moore and Thomas Brobjer (eds.), *Nietzsche and Science* (Aldershot: Ashgate), pp. 133–53.
Bec, Pierre (2003). *Le Comte de Poitiers, premier troubadour, à l'aube d'un verbe et d'une érotique* (Montpellier: Université Paul Valery "Collection lo gatros").
de la Croix, Arnaud (1999). *L'Éroticisme au moyen âge: Le Corps, le désir, l'amour* (Paris: Tallandier).
Decremps, Marcel (1974). *De Herder et de Nietzsche à Mistral* (Toulon: L'Astrado).
Goodrich, Peter (2001). "Gay Science and Law," in V. Kahn and L. Hutson (eds.), *Rhetoric and Law in Early Modern Europe* (New Haven: Yale University Press), pp. 95–125.
Hardy, Ineke, and Brodovitch, Elizabeth (2003). "Tracking the Anagram: Preparing a Phonetic Blueprint of Troubadour Poetry," in Barbara A. Altman and Carleton W. Carroll (eds.), *The Court Reconvenes: Courtly Literature Across the Disciplines* (Cambridge: D. S. Brewer), pp. 199–211.
Heidegger, Martin (1982). *Nietzsche*, vol. 2: *Eternal Recurrence of the Same*, trans. David Farrell Krell (San Francisco: Harper & Row).
Köhler, Joachim (2002). *Zarathustra's Secret: The Interior Life of Friedrich Nietzsche*, trans. Ronald Taylor (New Haven: Yale University Press).

McGee, T. J. et al. (eds.) (1996). *Singing Early Music: The Pronunciation of European Languages in the Late Middle Ages and Renaissance* (Bloomington: Indiana University Press).

Page, Christopher (1976). *Voices and Instruments of the Middle Ages* (Berkeley: University of California Press).

Porter, James I. (2000), *Nietzsche and the Philology of the Future* (Stanford: Stanford University Press).

Small, Robin (2001). *Nietzsche in Context* (Aldershot: Ashgate).

Steiner, Deborah (1986). *The Crown of Song: Metaphor in Pindar* (Oxford: Oxford University Press).

Treitler, Leo (2003). *With Voice and Pen: Coming to Know Medieval Song and How It Was Made* (Oxford: Oxford University Press).

Weiner, Marc A. (1995). "The Eyes of the Onanist or the Philosopher Who Masturbated," in id., *Wagner and the Anti-Semitic Imagination* (Lincoln: University of Nebraska Press).

Wilamowitz-Möllendorff, Ulrich (2000). "Future Philology," trans. Gertrude Pöstl, Babette E. Babich, and Holger Schmid, *New Nietzsche Studies*, 4(1/2), pp. 1–32.

Zumthor, Paul (1975). *Langue, texte, énigme* (Paris: Éditions du Seuil, 1975).