SYBILLE KRÄMER

Script and Sound

Reflections on the Creative Function of Visualization and Spatialization for Time-Bound Processes like Speech and Music

What is at issue

Speech and music occur through the medium of sound; they take place in the temporal order of succession. Whether it concerns linguistic or musical sounds: Whenever a sound occurs it is also already gone. Spoken language and music consist of an extremely fleeting, ephemeral material; it is a kind of substance which only exists in its disappearance. It is therefore no surprise that speech and music have a significant common characteristic: For both, the invention of techniques of inscription is a far-reaching event with serious consequences for the conceptualization of language and music. Writing negates the temporal evanescence of sound. It transmutes the ephemerality and fluidity of spoken words and music with the help of a stable symbolic configuration that is spatially and visually organized.

Yet, as long as writing is interpreted as the fixing of fluid tonality, writing is seen as a *secondary* system of symbols, which refers to speech and music as its primary objects. In this perspective, writing is considered a subordinate medium, which extracts its fluid reference item from the flow of time and transfers it to the fixed state of a spatial structure. Let us call this concept of writing, as the vehicle and functionary of the sounds it records and represents, the "phonographic dogma."

The main idea of this essay is to discuss and revise the "phonographic dogma," in so far as it is an insufficient perspective for understanding the real "genius" of creating inscriptions as a cultural technique.[1] The potential of the spatiality and visuality associated with script is not adequately grasped when writing is reduced to the translation of the linear order of temporal succession into the linear order of spatial succession. "For visual signs are not necessarily linear."[2] Rather, the specific feature of writing is its ability to transgress this linearity, which is typical of spoken words and performed music. This transgression consists in the two-dimensional form of ordering, which usually underlies the use of writing. It is simultaneity that matters: The spatial simultaneity of the written image contains—together with the stable materiality and visual perceptivity of the written sign—an operative potential, which has no

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1   For the concept of "cultural techniques," see "Cultural Techniques," ed. Geoffrey Winthrop-Young, Ilinca Iurascu, and Jussi Parikka, special issue, *Theory, Culture & Society* 30, no. 6 (2013).
2   Roy Harris, "On Redefining Linguistics," in *Redefining Linguistics*, ed. Davis Hayley and Talbot J. Taylor (London: Routledge, 1990), 39.

analog in the fluid temporality of spoken and musical sounds. Written characters can be handled. This creative and operative power comes into view when writing is not simply considered a form of transcribed speech or music, but rather when its iconicity and thus its "pictorial character" are taken into account. To be more precise: In order to recognize the creativity of writing for all practices of language games and musical performances, one must first acknowledge that visibility and spatiality play a decisive role in the process of transcription. What speech and music "are," how they are interpreted, and how we act with language and music will change under the conditions of their spatial transcription.

I will elaborate on these ideas in three steps: (1) The implicit "scripticism" of the theory of language and philosophy of music is described as a latent and hidden consequence of the phonographic dogma. (2) "Artificial flatness" is considered a special form of spatiality associated with writing and graphism in general. (3) The role that imagery plays in music and speech is examined by means of two historical examples: René Descartes' musical diagrammatics and Friedrich Nietzsche's idea that language results from the union of music and image.

An implicit scripticism?

For Jacques Derrida, Western philosophy marginalizes writing in favor of the living presence of the voice. He characterizes this as "phonocentrism."[3] However, this diagnosis of a *phono*centric orientation to the vocal as the sole and guiding tendency is incomplete. As long as writing remains a blind spot in the traditional theory of speech and music—and this applies to speech theory until the debate on orality/literacy,[4] and to music theory until today—the influence of writing in theorizing speech and music remains nearly unrecognized. The "blind spot" returns from behind: The hidden impact of the written medium is even more obvious. Therefore, we have to transform Derrida's picture of "phonocentrism": What comes to light is not simply a phonocentric privileging of the voice, but rather an "implicit scripticism."[5]

Two examples—taken from the fields of linguistic theory and musicology—will illustrate scripticism as a non-explicit dimension: They both depend on the connection between the expulsion of the genuine sensuality of speech and music, on the one hand, and the hypostatization of their systematicity, on the other. Thinking about speech and music first and foremost in terms of the idea of a system means modeling them along the lines of writing.

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3   Jacque Derrida, *Grammatologie*, trans. Hans-Jörg Rheinberger and Hanns Zischler (Frankfurt am Main: Suhrkamp, 1983), 35.

4   Starting with Jack Goody, *Literacy in Traditional Societies* (Cambridge, MA: Cambridge University Press, 1968); *The Logic of Writing and the Organization of Society* (Cambridge, MA: Cambridge University Press, 1986); Eric A. Havelock, *Preface to Plato* (Cambridge, MA: Harvard University Press, 1963); Walter J. Ong, *Orality and Literacy: The Technologizing of the Word* (London: Methuen, 1982).

5   See Christian Stetter, *Schrift und Sprache* (Frankfurt am Main: Suhrkamp, 1997), 117.

Look at the origin of modern linguistics: Ferdinand de Saussure distinguished between "parole"—spoken language—and "langue"—the system of language.[6] The latter constitutes the original and sole object of linguistics, while the phonetic or graphic sensuality of speech is not taken into linguistic consideration.[7] For Saussure, the audible sounds of speech are not part of language as a scientific object.[8] At the same time, however, he unintentionally employs writing as a silent model of the fundamental properties of language. For example, his principle of differentiality breaks with the idea that words have specific, well-defined meanings. For Saussure, the meaning of a word—what he calls its "value"—emerges from its difference from all the other words that are part of the system of language.[9] The structural principle of determining an individual element through the exclusion of all others is in its rigidity only legitimate in finite artificial sign systems, for example in writing: The function of the letter "a" is not to be "b," "c" … "z." The differentiality principle, which for Saussure is based on the genuine systematicity of human language, stems not from the autonomy of spoken "natural" language, but rather from that of artificially invented writing.

Let us move on to music theory. A contemporary philosopher, Gunnar Hindrichs, recently presented a philosophy of music.[10] Although Hindrichs considers the musical sound to be the material of music,[11] he emphasizes that this sound should *not* be identified with what is heard by the senses.[12] Rather, the sound emerges as a musical phenomenon—much like Saussure's differentiality principle—from its relation to all the other sounds that constitute the whole sound system.[13] This system principle is a characteristic feature of European art music. According to Hindrichs, it was already established in ancient Greece, as the Pythagoreans discovered the mathematical proportionality between audible relations and tonal ratios, characterizing the "logos" of music. The musical meaning of a sound is thus rooted in its system-based relation to other sounds; for Hindrichs, it is something that cannot be ascertained through the senses, but only through the intellect, by rational insight. Yet such a tonal relationality and systematicity of sounds is evident not in the auditory event itself, but rather in the image of written music. Nevertheless, the musical notation plays no role whatsoever in Hindrichs' philosophical discussion of European art music. Music in its written form remains the blind spot of his philosophy of music, although transcription is the necessary condition of especially that form of art music which Hindrichs thematizes as "pure music": We have known it under the heading of "autonomous music" since

6   I disregard his third concept, in French "langage," which refers to attributes which—for Saussure—cannot be reconstructed scientifically.

7   Ferdinand de Saussure, *Grundfragen der Allgemeinen Sprachwissenschaft*, ed. Charles Bally and Albert Sechehaye, trans. Herman Lommel, 2nd ed. (Berlin: de Gruyter, 1967), 13.

8   Saussure, *Grundfragen*, 141.

9   Ibid., 132.

10   Gunnar Hindrichs, *Die Autonomie des Klangs: Eine Philosophie der Musik* (Frankfurt am Main: Suhrkamp, 2014).

11   Hindrichs, *Autonomie des Klangs*, 36.

12   "Denn der musikalische Klang soll vom akustischen Klang unterschieden sein." Ibid., 90.

13   "Das, als was der Klang verständlich wird, ist seine Funktion. Seine Funktion wiederum stellt den Klang in einen Bezug auf andere Klänge sowie auf den Gesamtzusammenhang des Werkes." Ibid., 197.

Eduard Hanslick.[14] For musicology, a debate analogous to the debate on orality/literacy is yet to come.[15]

In cultural studies, literary studies, and linguistics the debate on orality/literacy overcomes the paradigm of writing as secondary and recognizes the oral and the written as two equivalent forms of language.[16] Distinguishing between acoustic and visual modalities is a decisive and even exciting turn within cultural research in language theory. Yet, we must recognize that the phonographic dogma remains undisputed in the theory of literacy, as writing is still considered the *transcription* of spoken language; and that means that writing is still interpreted as a *form of language*.[17] When ranked in the familiar matrix of the distinction between language and image, discursivity and iconicity, writing belongs to the field of language, not to that of image. However, the creativity and operativity of writing are based on the fact that scripture is more than a phenomenon in the realm of language: Its spatial-visual characteristics indicate that it is a mixture of linguistic *and* pictorial attributes. In written signs language and image are merged into a hybrid phenomenon. But why is it important to consider this hybridity?

Artificial flatness

According to the phonographic perspective, writing transfers and translates: The temporal order of succession in speaking is transformed into the spatial ordering of letters in strings of text. The idea of the linearity of writing is commonplace. Even a media philosopher as critical as Vilem Flusser insists on the linear character of writing;[18] and

14   For Hanslick, music consists in forms of sounds only without external reference and without connections to feelings: Hanslick attributed autonomy to music as artwork. *Vom Musikalisch-Schönen: Ein Beitrag zur Revision der Ästhetik der Tonkunst* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1991), 32.

15   First works include Dieter Appelt, Hubertus von Amelunxen, and Peter Weibel, eds., *Notation, Kalkül und Form in den Künsten* (Berlin: Akademie der Künste, 2008); David Magnus, "Transkription und Faktur musikalischer Zeichen von Anestis Logothetis," *Zeitschrift für Sprache und Literatur* 107, no. 42 (2011); Hermann Gottschewski, "Musikalische Schriftsysteme und die Bedeutung ihrer 'Perspektive' für die Musikkultur: Ein Vergleich europäischer und japanischer Quellen," in *Schrift, Kulturtechnik zwischen Auge, Hand und Maschine*, ed. Gernot Grube, Werner Kogge, and Sybille Krämer (München: Fink, 2005); Hyuntaek Yim, "Der Begriff und die Funktion der 'Schriftbildlichkeit' im Rahmen der Beziehung zwischen dem koreanischen Schriftsystem und dem traditionellen koreanischen Musiknotationssystem," *Zeitschrift für Sprache und Literatur* 107, no. 42 (2011).

16   Peter Koch and Wulf Oesterreicher, "Schriftlichkeit und Sprache," in *Schrift und Schriftlichkeit: Writing and its Use; Ein interdisziplinäres Handbuch internationaler Forschung*, vol. 1, ed. Hartmut Günther and Otto Ludwig (Berlin: de Gruyter, 1994); David R. Olson, "Literacy as Metalinguistic Activity," in *Literacy and Orality*, ed. David R. Olsen and Nancy Torrance (Cambridge, MA: Cambridge University Press, 1991); Wolfgang Raible, "Die Entwicklung ideographischer Elemente bei der Verschriftlichung des Wissens," in *Vermittlung und Tradierung von Wissen in der griechischen Kultur*, ed. Wolfgang Kullmann and Jochen Althoff (Tübingen: Narr, 1993); Paul Zumthor, *La poésie et la voix dans la civilisation médiévale* (Paris: Presses Universitaires de France, 1984)

17   An important handbook defines: Writing is "the amount of graphic signs with which spoken language is recorded." Hartmut Günther and Otto Ludwig, eds., *Schrift und Schriftlichkeit: Writing and its Use; Ein interdisziplinäres Handbuch internationaler Forschung*, vol. 1 (Berlin: de Gruyter, 1994), viii.

18   Different from the flatness of pictures and the punctuality of computer-generated pixels: Vilém Flusser, *Lob der Oberflächlichkeit: Für eine Phänomenologie der Medien* (Mannheim: Bollmann, 1995), 9–46.

many critics of Western rationality ascribe the sequentiality of deductive reasoning to the sequentiality of writing as a universal representation of rational thought.

However, the assumption that writing is linear misjudges precisely what distinguishes visual script from audible speech. Writing uses the two-dimensionality of the plane—a quality it shares with images, diagrams, tables, and all types of graphism. Planes do not empirically exist. Through the act of inscription and annotation, surfaces with depth are transformed into planes without depth. The virtual metamorphosis that transforms three-dimensionality into two-dimensionality is triggered by the performance of writing or drawing. What emerges is a separate space, an artificial spatiality that is completely neat, understandable, controllable, and often also manageable, as it excludes everything hidden behind and below, which is normally part of our living space. An illustrated or inscribed surface can become a laboratory of cognition as well as a workshop for aesthetic experimentation.[19] The cultural technique of flattening[20] is a development principle that shapes our symbolic and technical devices. This is clearly demonstrated by the role of screens, which permeate everyday life with mobile communication, such as iPhones and tablets.

Yet the graphical production of flatness embodies an ancient anthropological technique.[21] It extends from carvings on bones, tattoos on skin, paintings on walls, pictures, diagrams, maps, writing, through to contemporary computer screens and mobile phones. The mobility and creativity of the mind are indelibly linked to the invention and evolution of spatial flatness. Is the obligatory privileging of "depth" and "deep structure," as a signature feature of successful thought—in contrast to the discrediting of "superficial thought"—a rhetorical compensation for the constitutive role of the cultural technique of flatness?

Writing, which is etched or applied onto mobile storage media, establishes an operational space for artistic and cognitive designs. The inscribed surface gives rise to the procedure of time axis manipulation:[22] The irreversibility of time is—to some extent—revised in the terrain of the inscribed surface. Think about oral language: It is possible to repeat a spoken word, but it is impossible to take it back literally and transform it. It is also impossible to recite a word backwards or sing a melody backwards. However, in the medium of written language and music it is easy to invert the sequence of letters or musical figures. Every drawn configuration can be reverted; every structure can be turned around. Or think about the phenomenon of crossword puzzles. It is clear that this operative potential of writing exponentially multiplies linguistic and musical

19   Sybille Krämer, "Trace, Writing, Diagram: Reflections on Spatiality, Intuition, Graphical Practices and Thinking," in *The Power of the Image*, ed. András Benedek and Kristóf Nyíri (Frankfurt: Lang, 2014).

20   Sybille Krämer, "Graphism as Flatness: The Line as Mediator between Time and Space, Intuition and Concept," in *The Power of the Line*, ed. Marcia Faietti and Gerhard Wolf (München: Hirmer, 2015).

21   David Summers has examined the aesthetic consequences of "flatness" in the realm of art history; an analog examination of the cognitive impacts of flatness in the history of the mind is still missing. *Real Spaces: World Art History and the Rise of Western Modernism* (London: Phaidon, 2003).

22   Friedrich Kittler defines media by the process of time axis manipulation. Sybille Krämer, "The Cultural Techniques of Time Axis Manipulation: On Friedrich Kittler's Conception of Media," *Theory, Culture & Society* 28, no. 7–8 (2006).

inventiveness. Compositional work is hardly possible without musical notation, just as spoken theater is hardly possible without scripts, and dance performances often depend on forms of choreography. The complexity of literature and European art music is inconceivable without the operational space of notational practices.

To sum up: The idea that writing is the spatial transmission of temporal spoken language and is thus subordinate to the linearity principle obscures the fact that writing establishes an operational space of simultaneity, which is precisely *not* associated with the linguistic, but rather with the graphic and the pictorial. I call this dimension the "notational iconicity" of writing.[23] The representational and operational potential of writing is anchored in the combination of linguistic *and* pictorial characteristics, of the discursive *and* the iconic.

But what are the consequences of "notational iconicity" under the condition that it shapes the way "language" and "music" are conceived, theorized, and practiced in the Western tradition? Remember that Saussure's differentiality principle of language and Hindrichs' systemic determination of the aesthetic properties of sound demonstrated that writing was implicitly and involuntarily used as a model for the system-oriented approach to speech and music. The idea of an inherent systematicity that is valid for both language and music is the unintentional trace left behind by the influence of the inscription system, which reveals itself behind the backs of the authors.

However, there is another way in which the elements of imagery and visuality have shaped the conception and interpretation of language and music. However, this is not implicit, but rather explicit, and it is done deliberately. I start with a musical example: René Descartes' musical diagrammatics.

René Descartes: the genesis of music theory from musical diagrammatics

Writing shares an operative form of iconicity with tables, diagrams, and maps, which all result from the graphic interaction of point, line, and plane. "Operative iconicity"[24] means that the representation of a mostly non-pictorial phenomenon in the form of these iconic configurations reveals insights through operating with the configurations that would be impossible or at least difficult to achieve without this kind of visualization. At the same time, it is clear that such visualizations are not to be understood as straightforward translations or mappings; they rather imply a metamorphosis of the represented and visualized object.

What is important here with regard to "graphing" structures in music is that the visual-spatial representation of musical processes not only creates new possibilities for the composition of music; it can also be used as a means of acquiring knowledge of musical phenomena.

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23   Terminus introduced in Sybille Krämer, "Writing, Notational Iconicity, Calculus: On Writing as a Cultural Technique," *Modern Languages Notes* 118, no. 3 (2003).
24   Sybille Krämer, "Operative Bildlichkeit: Von der 'Grammatologie' zur 'Diagrammatologie'? Reflexionen über erkennendes 'Sehen,'" in *Logik des Bildlichen: Zur Kritik der ikonischen Vernunft*, ed. Martina Heßler and Dieter Mersch (Bielefeld: Transcript, 2009).

This is precisely the concern of René Descartes' (1596–1650) first completed work, *Compendium Musicae* (1618), an introduction to music theory, where he summarizes the state of diatonic musical thinking in the 16th century; it was not published until 1650 though.[25] Here Descartes wants to understand and determine more precisely the emotional and aesthetic effect of the sensual tonality of music on humans. For this purpose, he includes a variety of diagrams depicting acoustic features. Please note that the subject of Descartes' investigation remains music as a sound event. The visualization serves to understand and demonstrate why we experience music as an acoustic phenomenon the way we do. One example is intervals, which are experienced by listeners as either harmonious or dissonant. Descartes is searching for the underlying cause of this distinction in the auditory impression. To this end, he visualizes tones as graphic line ratios and examines their relations. In doing so he introduces and debates the distinction between proportional and non-proportional line ratios.[26] His thesis is that harmonious sounding intervals can be reconstructed according to the principle of arithmetic proportionality, while disharmonious intervals have a line ratio that is incommensurable: These lines do not share even the smallest common feature, and therefore their relation cannot be expressed as a simple numerical ratio.
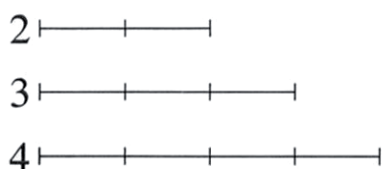

Figure 1: Three line segments visualizing harmonic relations by arithmetic proportionality.[27]

In contrast to the harmonious sounding intervals, no proportional relationship appears to exist between the line ratios of the disharmonious sounding intervals: They are lacking what we visually experience as "symmetry."
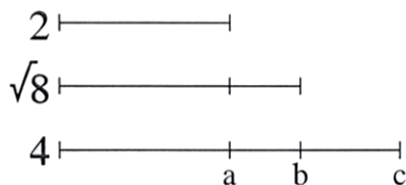

Figure 2: Three incommensuralbe line segments visualizing disharmonic relations.

25   Daniel Muzzulini, "The Geometry of Musical Logarithms," *Acta Musicologica* 87, no. 2 (2015).
26   René Descartes, *Musicae Compendium: Leitfaden der Musik*, ed. and trans. Johannes Brockt, 2nd ed. (Darmstadt: Wissenschaftliche Buchgesellschaft, 1992), 11.
27   Figures 1 and 2: Descartes, *Musicae Compendium*. See Dennis L. Sepper, *Descartes's Imagination: Proportion, Images, and the Activity of Thinking* (Berkeley: University of California Press, 1996), 40.

I will not go into the details of Descartes' musical analyses in the medium of musical diagrammatics, but I will add a few general observations. Descartes' object of inquiry is not written musical notation, but rather the acoustic sounds in musical performance. To get access to the acoustic music, he translates tonal ratios into graphic line relations, which negates the ephemerality of sounds and makes their internal relations understandable, observable, and analyzable. In doing so the diagrams do not serve simply to illustrate a claim; rather they are employed as an epistemological instrument: The phrase "Ex hac figura apparet, quid […]" ("From this figure one recognizes […]")[28] is frequently found in his text. For Descartes, musical diagrams function as a means for scientific discovery, which is called the *ars inveniendi*, as well as a means for evaluation, which is called the *ars iudicandi*. Moreover, Descartes understands his musical diagrammatics as a set of guidelines that facilitate the composition of music and help the composer to avoid mistakes.[29] —Music should therefore not be deprived of its sensual qualities; rather, graphism, spatialization, and visualization should serve to stimulate the creative production of music through visualizing and understanding the underlying structure.

Nietzsche: the birth of language from the combination of music and image

After this example from the philosophy of music I will now turn to the philosophy of language in order to demonstrate how the reference to the visual is constitutive for a concept of language that does not follow the hidden tracks of scripticism discussed in the beginning of the paper. With Friedrich Nietzsche (1844–1900) we find a very unusual picture of what it is to be a language.[30] His notes on language are dispersed throughout his oeuvre. For him, language has a double life: It is a "tonal language" as well as a "gestural language."[31] This does not refer to the familiar distinction between speech and gesticulation, but rather to a difference within the *spoken* word itself. By "gesture" Nietzsche means "Mundgeberde," "the mouth gesture,"[32] which refers to the formation of consonants and vowels, but without their tonality;[33] in other words, the gesture is only understood as a configuration of the organs of speech. Through these mouth gestures a symbolism, something that is semiotic, is produced. According to Nietzsche, this symbolism is linked to an accompanying mental image, and therefore it is associated with the visual. In contrast, the aesthetic dimension of vocality, the tonality of speech, is for Nietzsche not linked to visual images, but rather to "Strebun-

28   Descartes, *Musicae Compendium*, 20.

29   Ibid., 57.

30   Corina Caduff was the first to discuss orienting language to music by Nietzsche. "Vom Urgrund zum Supplement: Musik in den Sprachtheorien von Rousseau, Nietzsche und Kristeva," *Musik und Ästhetik* 1, no. 3 (1997). See also Sybille Krämer, "Negative Semiologie der Stimme: Reflexionen über die Stimme als Medium der Sprache," in *Medien/Stimmen*, ed. Cornelia Epping and Erika Linz (Köln: DuMont, 2003), 75–77.

31   Friedrich Nietzsche, *Sämtliche Werke: Kritische Studienausgabe*, ed. Giorgio Colli and Mazzino Montinari, vol. 7 (München: dtv, 1980), 362.

32   Nietzsche, *Sämtliche Werke*, vol. 1, 575.

33   Nietzsche, *Sämtliche Werke*, vol. 7, 379.

gen des Willens" ("strivings of the will"),[34] which are expressed as pleasure and pain and are always associated with power or powerlessness.

For Nietzsche, human language emerges from the combination of mouth gestures and tonality: "The most intimate and most frequent merging of a type of gesture symbolic and the tone we call language."[35] We see: Nietzsche makes language a hybrid of image and music. However, the visual and the musical sides are not equally important: "The most understandable aspect of language is not the word itself, but rather the sound, volume, modulation, and tempo with which a series of words are spoken; in short, the music behind the words."[36] Unlike many philosophies of language committed to the linguistic turn, which attribute a foundational and unavoidable authority to language, Nietzsche thus characterizes language itself as generated by and emerging from the interaction of music and image.

The musical and pictorial genesis of language opens up an innovative perspective and has far-reaching consequences: We are used to looking at music as a kind of language. It was Adorno who last advocated the idea of language as a character of music. Albrecht Wellmer's philosophy of music also provides a starting point for the idea of interpreting music as a kind of language.[37] With Nietzsche, however, this perspective can be problematized and reversed: not all music has to be interpreted oriented to the model of language, yet language can be interpreted according to the model of music. What is fundamental for Nietzsche is not the language-like character of music, but rather the music-like character of language.

This methodological reorientation has interesting implications for the observation and theory of language: The act of communicating with one another can be understood as analogous to the collective act of making music together.[38] Communication is not harmony in terms of the shared meanings of words, but rather a resonance in the "wavelengths" of the speakers, in tone and rhythm, and it is here that social bonding and agreement—as well as the potential for rupture and disagreement—develop. This can be seen as a perspective-rich supplement to the socio-philosophical theory of communication. Communicative consensus is usually associated with the ability to raise and criticize claims dialogically; however, recognition of a musicality in speech could attribute consonant and dissonant communication to the pre-propositional parameters of speech as a sound event.

Nietzsche's idea that language originates from the spirit of the combination of music and image raises yet another issue. His distinction between Apollonian and Dionysian is a very familiar conceptual pair in art theory.[39] Nietzsche uses Apollonian and Dionysian to articulate two dynamics of artistic development: Apollonian energy is associated with measurements and ratios, and it is realized in the drawing of bounda-

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34   Nietzsche, *Sämtliche Werke*, vol. 1, 572.
35   Ibid., 575.
36   Nietzsche, *Sämtliche Werke*, vol. 10, 89.
37   Albrecht Wellmer, *Versuch über Musik und Sprache* (München: Hanser, 2009).
38   Werner Nothdurft and Johanes Schwitalla, "Gemeinsam musizieren: Plädoyer für ein neues Leitbild für die Betrachtung der mündlichen Kommunikation," *Der Deutschunterricht* 47, no. 1 (1995).
39   Nietzsche, *Sämtliche Werke*, vol. 1.

ries between objects, the creation of distance between the artist and the work, and the foundation of individuality. In contrast, Dionysian energy breaks down boundaries, is excessive, collapses and negates distances, and merges individuality into collective experience; this energy is a performance of power. Nietzsche associates the Apollonian with the properties of the image and the Dionysian with the power of music. And yet hardly anyone is aware that Nietzsche originally developed this distinction as an insight into the philosophy of language. He attributes a Janus-faced nature to speech as simultaneously gesture and sound, as it oscillates between the Apollonian and the Dionysian or between something analogous to the image and something analogous to music. Nietzsche explicitly emphasizes that, for him, the difference between tonal language and gestural language is a model for both the distinguishability and the interaction between the Dionysian and Apollonian dimensions in the arts.

If Apollonian and Dionysian dynamics work together in speech, then this sheds a revealing light on our understanding of the role of the voice. The orality/literacy debate associates literacy with propositionality, rationality, deductive thinking, and science. As a result, the voice and orality are mostly associated with the extra-rational and the prepredicative, the affective and appellative dimensions of communication. If we follow Nietzsche, however, this division of voice and writing between the poles of the Dionysian and the Apollonian is incorrect. Rather, the complex interaction of *both* dynamics in spoken as well as in written communication needs to be examined. The role of the vocal cannot be reduced to affectivity; and the role of writing cannot be released from affectivity.

By the way: A subsequent question arises on this point. Does digital writing in the virtual worlds of online forums, social networks, and blogs, in which phenomena like cyberbullying and "hate speech" are so ubiquitous as urging, reveal that writing—and not just the voice—has an inherently Dionysian dimension? If that is the case: Why is the net such a privileged medium for a "liberation" of this violent form of the Dionysian?

Conclusion

Let us underline short conclusions that can be drawn from these considerations, reflecting on new methodologies in word and music studies.

1. The media-theoretical discussion of speech and music has to take into account the shaping power of iconicity and the pictorial of both spoken and musical forms. Yet this influential power cannot be reduced to "visuality"; rather, we have to reflect on this iconicity in terms of spatiality and operativity. The spatiality, visuality, and tactility of the written image influence the culturally specific ways in which speech and music are realized and theorized under the conditions of their transfiguration into spatial configurations.

2. The formative potential of writing can only be understood in connection with the human invention of flatness and the formatted surface. To use surfaces as planes of inscription and picturing is so "natural" that we normally do not notice the cultural

power of this medium. The interaction of point, line, and plane creates a space for creative, cognitive, and aesthetic operations.

3. One of the most significant forms of intermediality is that which occurs between time and space. Inscription systems spatialize temporal sequences, just as spatial arrangements are turned into temporal performances. The role of time and space is not symmetrical under the cultural-historical conditions of ocularcentrism. Due to the culture-endowing role of images, graphs, and writing, the spatial patterns of ordering seem to constitute a privileged medium. Note that the temporal is preferably represented in spatial constellations.

4. To finish with a very general remark: Whenever there is a problem in practical or theoretical orientation and insight, humans tend to resort to inscribed surfaces. Is there something like a "cartographic impulse" within our culture, not only for bodily, but also for mental orientation? Writing in the realm of language and music provides a "cartography" of both.