

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

Introduction

I

Initially conceived as a branch of aesthetics within the larger discipline of philosophy, somaesthetics reflects my pragmatist efforts to reshape both these fields. But it has blossomed into a truly interdisciplinary enterprise. Many fine scholars in diverse disciplines have developed the somaesthetic project in fascinating and useful ways. Before introducing the essays that constitute this collection, I should note some of these developments along with the major criticisms somaesthetics has received and the challenges it needs to address in future work. First, however, I should briefly sketch how somaesthetics seeks to reorient its original disciplinary domain of aesthetics and philosophy. The ensuing chapters of this book flesh out this sketch in much greater detail.

Art enchants us through its richly sensuous dimensions, perceived through the bodily senses and enjoyed through embodied feelings. Yet philosophical aesthetics largely neglects the body's role in aesthetic appreciation. No theorist could ignore the frequent focus of painting and sculpture on beautiful bodily forms, nor deny the obvious fact that artworks are made through bodily efforts and skill; but philosophers generally disregard the body's broader aesthetic importance, conceiving it as a mere physical object for artistic representation or a mere instrument for artistic production. Even when Alexander Baumgarten, in the mid-eighteenth century, first defined modern aesthetics explicitly as a science of sensory perception (deriving its name from the Greek word for such perception, *αἰσθησις*), the body played no part in his theory, despite the bodily nature of our senses. Although Kant continued to treat aesthetic appreciation in the sensory terms of "judgment of taste" and "feeling of pleasure," the body remained excluded from its determining "a priori

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

grounds” of form. Truly aesthetic judgments of taste are distinguished from bodily “judgments of sense” in that they involve “not what gratifies in sensation but merely by what pleases by its form,” and are thus untainted with the “merely empirical delight” from somatic feelings, charm, and emotion.¹

With Hegel’s idealist, conceptual turn that essentially set the subsequent direction of modern aesthetics, the body is still more firmly dismissed because the focus on sensory perception, pleasure, and judgment is replaced by the project of defining fine art. Such art, he argues, should not be “servile” by satisfying “the ends of pleasure,” but rather achieve its freedom (paradoxically) by its service in revealing and expressing spiritual truth, particularly “the most comprehensive truths of the mind.” No longer the Baumgartian science of perception, aesthetics becomes “the *science* of art,” a project not for increasing “our immediate enjoyment” or “stimulating art production, but in order to ascertain scientifically what art is.”² Even analytic philosophy, which originally cut its teeth by rejecting Hegelian views, has now long been wedded to the project of defining aesthetics through the key issue of defining art. Some analytic aestheticians combine this project with Kantian ideas that define art in terms of aesthetic experience and judgment as disinterested, nonfunctional, and concerned with pleasure and beautiful form; others instead reject Kantian concerns with beauty and pleasure as inessential for art.³

As pragmatist aesthetics rejects the essential Kantian opposition of the aesthetic to the practical by insisting that art and aesthetic experience can serve life’s interests without losing their status as worthy ends, so it also opposes Hegel’s idealist scientism by celebrating the value of immediate enjoyment and of the body as a central locus where life’s interests, pleasures, and practical purposes are realized. If pragmatist aesthetics likewise resists the traditional aesthetic attitude of distanced, disinterested contemplation by advocating an aesthetics of active, creative engagement, then it also should recognize that all action (artistic or political) requires

¹ Immanuel Kant, *The Critique of Judgment*, trans. J.C. Meredith (Oxford: Oxford University Press, 1986), 57, 63, 65, 67.

² G.W.F. Hegel, *Introductory Lectures in Aesthetics*, trans. Bernard Bosanquet (London: Penguin, 1993), 9, 13.

³ This was not always the case. On the contrary, early analytic aesthetics often strongly resisted the project of defining art because of art’s great diversity and open, dynamic character. For more details on this transformation, see Richard Shusterman, “On Analytic Aesthetics: From Empiricism to Metaphysics,” in *Surface and Depth: Dialectics of Criticism and Culture* (Ithaca: Cornell University Press, 2002), 15–33.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

the body, our tool of tools.⁴ Building on the pragmatist insistence on the body's central role in artistic creation and appreciation, somaesthetics highlights and explores the soma – the living, sentient, purposive body – as the indispensable medium for all perception.

Somaesthetics thus redirects aesthetics back to the core issues of perception, consciousness, and feeling, which are embodied in the root meaning of “aesthetic” and its familiar contrast – “anaesthetic.” Freed from the limiting focus on philosophy of language and metaphysics – the preoccupation with deriving definitions for the field of fine art and describing the ontology of its objects or artworks – aesthetic inquiry emerges enriched through somaesthetics as an exploratory orientation for new research in philosophy of mind. Aesthetic experience in the special sense of art can thus be better understood through a better grasp of its underlying ground in more basic forms of perceptual experience that are also essentially and actively embodied. If experiences of art and beauty are distinctive for the powerfully gratifying ways they absorb our attention, unify our consciousness, and engage our emotions, then increasing our powers of awareness, focus, and feeling through better mastery of their somatic source could render more of our experience similarly rewarding in such ways. Not only art's creation and appreciation would be enhanced through this heightening of consciousness; the attractive shaping of our lives as an art of living could also be enriched by greater perceptual awareness of aesthetic meanings, feelings, and potentials in our everyday conduct of life.

Beyond reorienting aesthetic inquiry, somaesthetics seeks to transform philosophy in a more general way. By integrating theory and practice through disciplined somatic training, it takes philosophy in a pragmatic meliorist direction, reviving the ancient idea of philosophy as an embodied way of life rather than a mere discursive field of abstract theory. As embodiment becomes an increasingly trendy theme in academia, the idea of embodied philosophy is often affirmed, but nonetheless remains ambiguous. Minimally, it signifies a philosophy that (unlike idealism) takes the material body seriously as a valuable dimension of human experience and knowledge. Embodied philosophy means something stronger in phenomenologies like Maurice Merleau-Ponty's, in which the body forms a central perspective that structures the philosophical system and

⁴Pragmatism's engaged stance includes the recognition that social forces significantly shape art's aesthetic experience and its social and political visions, but also that art reciprocally can inspire social and political transformation.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

is celebrated as a sentient, intelligent, purposive, skilled subjectivity that likewise helps construct the world rather than being a mere physical object in it.

My somaesthetics differs from such phenomenologies in a number of ways. First, rather than seeking to reveal an alleged primordial, foundational, and universal embodied consciousness that (in Merleau-Ponty's words) is "unchanging, given once and for all," and "known by all men" in all cultures and times, I claim that somatic consciousness is always shaped by culture and thus admits of different forms in different cultures (or in different subject positions within the same culture).⁵ Second, somaesthetics is interested not merely in describing our culturally shaped forms of somatic consciousness and modes of somatic practice, but also in improving them. Third, to effect such improvements, it also includes practical exercises of somatic training rather than mere philosophical discourse.⁶

In short, for somaesthetics, embodied philosophy is more than the theoretical affirmation and articulation of the body's crucial role in all perception, action, and thought; it is more than the elaboration of this theme in the familiar discursive forms of writing, reading, and discussing texts. Embodied philosophy also means giving real body to thought through somatic style and behavior, demonstrating one's philosophy through one's own bodily example, expressing it through one's manner of living. Adapting more colloquial idioms, it means putting one's body where one's mouth is; to really walk the walk, not just talk the talk. Building on pragmatic insights and ancient philosophical traditions (of both East and West), somaesthetics advocates somatic training as a worthy dimension of philosophical cultivation and expression. Confucius clearly affirmed somatic cultivation as a crucial dimension of philosophical education, once informing his disciples that he could cease speaking and simply teach, as nature does, by embodying his philosophy in his bodily behavior. Greek and Roman thinkers often likewise advocated this ideal, sometimes by contrasting true philosophers who lived their philosophy to those who merely wrote philosophy and thus were denigrated

⁵ See Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London: Routledge, 1962), xiv; and Maurice Merleau-Ponty, *In Praise of Philosophy and Other Essays*, trans. John Wild, James Edie, and John O'Neill (Evanston: Northwestern University Press, 1970), 63.

⁶ What precisely constitutes improvement is not a question that admits of a single, general, definitive answer. Different contexts and problems will demand different solutions. Moreover, one dimension of somaesthetic inquiry involves the debate over somatic norms, methods, and values that eventually determine how to understand improvement in particular contexts.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

as mere “grammarians.”⁷ The idea of philosophy as an embodied art of living found renewed expression in American thinkers like Emerson and Thoreau who inspired both pragmatism and somaesthetics, underlining the distinction between mere “professors of philosophy” and real philosophers who truly embody or live their thought.⁸

Invoking this ancient tradition, I introduced somaesthetics “as a new name for some old ways of thinking,” borrowing the shrewd formulation William James used to subtitle his first book on pragmatism. I wanted a new name to represent the new project of somatic philosophy I envisaged, because new names can be helpful both in stimulating new thinking and in reorganizing and reanimating older insights. Established terms such as “aesthetics of the body” or “philosophy of the body” were too rife with problematic associations that provoke misunderstanding. First, the definite article in these expressions suggests a dangerous essentialism or uniformity about our embodiment, as if we are dealing with only one single thing – “the body” – rather than doing justice to the diversity of our bodies (in terms of gender, age, and ethnicity, for example) and the different ways of experiencing them. Moreover, familiar expressions such as “body aesthetics” evoke our culture’s persistent preoccupation with superficial stereotypes of bodily beauty (our unhappy domination by somatic norms focused on external bodily appearance and derived from supermodels, beauty queens, and body builders), while I wish to promote a much broader palette of somatic forms of aesthetic experience. Besides, because of our culture’s deeply entrenched body/mind dualism, the very notion of body suggests mere material mass and mindlessness, which makes “philosophy of body” seem a contrast to philosophy of mind. I seek to overcome such dualisms by recognizing the body as a site of active perception and subjectivity.

The term “soma” (a less familiar expression deriving from the Greek word for body) struck me as a useful way of designating embodiment but without all the problematic associations of the terms “body” or “flesh.” I chose soma to insist that my project concerns the sentient lived body rather than merely a physical body.⁹ It can thus incorporate dimensions of bodily subjectivity and perception that I regard as crucial to the aesthetics

⁷ For more on these points, see Richard Shusterman, *Practicing Philosophy: Pragmatism and the Philosophical Life* (London: Routledge, 1997); and “Pragmatism and East-Asian Thought,” in Richard Shusterman (ed.), *The Range of Pragmatism and the Limits of Philosophy* (Oxford: Blackwell, 2004), 13–42.

⁸ Henry David Thoreau, *Walden*, in Brooks Atkinson (ed.), *Walden and Other Writings* (New York: Modern Library, 2000), 14.

⁹ Homer is the exception among ancient Greeks in using *σῶμα* to designate the corpse, using instead *δῆμας* (frame) for the living body of a person. For more details, see H. G.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

of embodiment and to aesthetic experience in general (since all experience, at least for us humans, is embodied). So “somaesthetics” (a simple splicing of “soma” and “aesthetics”) seemed an apt name for my new project, which sought to give the body more careful aesthetic attention not only as an object that externally displays beauty, sublimity, grace, and other aesthetic qualities, but also as a subjectivity that perceives these qualities and that experiences attendant aesthetic pleasures somatically.

Admittedly, the term is not without problems. It lacks the vivid imagery of “washboard abs” or “buns of steel”; phonetically, it is more ugly than mellifluous, and its unfamiliar character can cause confusion. (The first time I gave “Somaesthetics” as the title of an invited lecture outside North America, the conference organizers misread my handwritten fax and announced the title as “Some Aesthetics” in their program). By and large, however, the term is immediately understood as relating to the aesthetics of embodiment (including embodied perception), and I am very pleased that many scholars in diverse fields have adopted it. Some critics have worried that “soma” ambiguously refers to a divine ritual drink described in the Vedic tradition and has served to designate a hallucinogenic, pleasure-producing drug in some twentieth-century fiction.¹⁰ These spiritual and literary associations strike me as far less troubling than today’s commercial use of “soma” as the brand name of an addictive, perception-dulling muscle relaxant often prescribed for backache. For such musculoskeletal ailments, I would prefer to recommend somaesthetic cultivation of heightened body awareness and control.

Philologists have sometimes complained that the term “somaesthetics” is a morphologically misconstrued compound whose proper form should instead be “somatoaesthetics” (as in the somatosensory system). But I can defend the construction by noting its established use in neurophysiology, where it typically appears without the “a” (as “somesthetic”) to designate the somatosensory. In neuroscience, the somaesthetic system refers most specifically to bodily senses other than those of sight, hearing, smell, and taste; that is, it designates feelings of skin (touch), proprioception, kinaesthesia, bodily temperature, balance, and pain. I was not aware of this usage when I chose the term “somaesthetics” for the field I envisaged, but its existence is encouraging because it suggests how somaesthetics can usefully intersect with neuroscience and philosophy

Liddell and Robert Scott (eds.), *A Greek-English Lexicon* (Oxford: Clarendon Press, 1996), 378.

¹⁰ Kathleen Higgins, “Living and Feeling at Home: Shusterman’s Performing Live,” *Journal of Aesthetic Education*, 36 (2002): 84–92.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

of mind in exploring a common concern with bodily perceptions. Moreover, it signals the interdisciplinary nature of somaesthetics, guided by my premise that philosophical thinking thrives better through collaborative engagement with other disciplines than through a purist policing of disciplinary borders. While my own somaesthetic theorizing is principally in the philosophical genre (because of my academic training), somaesthetic research can be pursued through other disciplines in the humanities, arts, and social and natural sciences.

My choice of the term “somaesthetics,” I should confess, was also motivated by its elegant way of mitigating an orthographical problem that increasingly perturbed me: Should the discipline Baumgarten founded be rendered in English as “aesthetics” or more simply as “esthetics”? Although the question seems trivial, it is as stubbornly pervasive as the written use of the term (and its cognates); it cannot be evaded, and for me it posed some deeper issues of identity. My analytic philosophical education at Jerusalem and Oxford taught me to use the more sophisticated Greek-styled diphthong “ae” that was standard in English literature, but having become an advocate of American pragmatism, should I not adopt the simpler, more streamlined spelling “esthetic” that John Dewey insisted on using? The “ae” was more familiar and more elegant, but the plain “e” seemed clearly more honest and economically functional, and thus more in keeping with pragmatism.

The “ae”-versus-“e” dilemma is thematized in a cartoon that Saul Steinberg created for the poster celebrating the fiftieth anniversary of the American Society for Aesthetics, in which a thick, monumental-sized “E,” solidly planted on the earth and towering over surrounding trees, imagines itself as a slim, elegant “Æ” in an ethereal cloud-like cartoon bubble above its head. In discussing Steinberg’s poster, Arthur Danto describes this “aesthetics” / “esthetics” difference as one merely “in font” and visual appearance, with no semantic or phonetic significance.¹¹ Though the difference of a letter is surely more than a difference of font, Danto is right that the “a” in “aesthetics” does no real semantic or phonetic work, so that “aesthetics” and “esthetics” are phonetically and referentially the same. Principles of functional economy that are central to philosophical reasoning and especially to pragmatism should then convince a pragmatist to drop the unnecessary, nonfunctional “a” as Dewey did. Nonetheless, I remained charmed by the more visually elegant diphthong. The term

¹¹ Arthur Danto, “Minding His A’s and E’s,” *Art News* (November 2006): 112, 114; quote on 114.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

“somaesthetics” resolves this discomfort by giving the “a” a real semantic function through its use in “soma” but preserving the visual form and pronunciation of “aesthetics” within its longer lexical frame, while also enriching the field of aesthetics by highlighting the vital bodily dimension of creating, perceiving, and appreciating works of art and other objects of aesthetic experience.

II

Engaging a wide variety of knowledge forms and disciplines that structure our somatic experience or can improve it, somaesthetics is a framework to promote and integrate the diverse range of theorizing, empirical research, and meliorative practical disciplines concerned with bodily perception, performance, and presentation. While originally rooted in philosophical research, it is not a single theory or method advanced by a particular philosopher, but rather an open field for collaborative, interdisciplinary, and transcultural inquiry. Its applications already extend beyond philosophy to a broad array of topics ranging from the arts, product design, and politics to fashion, health, sports, martial arts, and the use of hallucinogenic drugs in education.¹² Somaesthetics’ most notable developments thus far can be grouped into three general areas: arts, politics, and design technology.

Although dance may be the most paradigmatic of somatic arts, somaesthetics has been likewise applied to theatre in analyzing the somatic styles of movement and posture of actors on stage.¹³ Eric Mullis does this with

¹² See, for instance, Titti Kallio, “Why we choose the more attractive looking objects: somatic markers and somaesthetics in user experience,” *Proceedings of the 2003 International Conference on Designing Pleasurable Products and Interfaces* (New York: ACM, 2003), 142–143; N.W. Loland, “The Art of Concealment in a Culture of Display: Aerobicizing Women’s and Men’s Experience and Use of Their Own Bodies,” *Sociology of Sport Journal*, 17 (2000): 111–129; J.G. Forry, “Somaesthetics and Philosophical Cultivation: An Intersection of Philosophy and Sport,” *Acta Universitatis Palackianae Olomucensis. Gymnica*, 36 (2006): 25–28; Michael Surbaugh, “‘Somaesthetics,’ Education, and Disability,” *Philosophy of Education*, (2009): 417–424; S.J. Smith and R.J. Lloyd “Promoting Vitality in Health and Physical Education,” *Qualitative Health Research*, 16 (2006): 249–267; Ken Tupper, “Entheogens and Education,” *Journal of Drug Education and Awareness*, 1 (2003): 145–161.

¹³ For applications to dance, see, for example, Peter Arnold, “Somaesthetics, Education, and the Art of Dance,” *Journal of Aesthetic Education*, 39 (2005): 48–64; Lis Engel, “The Somaesthetic Dimension of Dance Art and Education – a Phenomenological and Aesthetic Analysis of the Problem of Creativity in Dance,” in E. Anttila, S. Hämäläinen, T. Löytönen & L. Rouhiainen (eds.), *Ethics and Politics Embodied in Dance: Proceedings of the*

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

Introduction

9

respect to some Western theories of acting, while I analyze (in Chapter 9) the somaesthetic training and ideals of movement and posture in Japanese Nō theatre. Somaesthetic concepts and theories have been just as extensively deployed for understanding music and music education.¹⁴ Beyond concepts and theories, practical somaesthetic training in heightened body consciousness has also found a place in the performing arts, particularly in music and dance education.¹⁵

In visual arts, somaesthetics has been used to explain not only how artists use their bodies in making artworks, but also how observers deploy themselves somatically to perceive such works. Many works of visual art (whether paintings, sculptures, photographs, or installations) consciously presuppose and play with the viewers' somatic standpoint, so that the soma can be powerfully thematized in a work without a body being visually represented in it.¹⁶ As I explain in Chapter 10, the body (with its multiple senses and movement through space) likewise plays a formative role in architectural design and experience. Performance art presents a distinctive case in which the body is not only a tool of creation and means of perception, but also the expressive medium and visual end product or art object. Building on my somaesthetic theory, Martin Jay shows the political import of body-centered performance works that challenge the prevailing norms of bodily form and comportment with their attendant sociopolitical hierarchies of domination. Drawing on my analysis of hip hop's integration of somatic energy and political protest,

International Dance Conference, December 9–12, 2004 (Helsinki: Theatre Academy, 2005), 50–58; Patricia Vertinsky, "Transatlantic Traffic in Expressive Movement: From Delsarte and Dalcroze to Margaret H'Douler and Rudolf Laban," *The International Journal of the History of Sport*, 26 (2009): 2031–2051; and Isabelle Ginot, "From Shusterman's Somaesthetics to a Radical Epistemology of Somatics," *Dance Research Journal*, 42 (2010): 12–29. For applications to acting, see Eric Mullis, "Performative Somaesthetics: Principles and Scope," *Journal of Aesthetic Education*, 40 (2006): 104–117.

¹⁴ See, for example, the special issue on somaesthetics (focused on my book *Body Consciousness*) in the journal *Action, Criticism, and Theory for Music Education* 9 (2010): <http://act.maydaygroup.org/php/archives.v9.php#g.1>.

¹⁵ I have given practical somaesthetic workshops for choreographers and dancers in France (in the training programs of Myriam Gourfink at Royaumont and Maguy Morin at Lyon) and for musicians at the Sibelius Academy in Finland. Clips from the workshop at Royaumont can be viewed at the somaesthetics site <https://sites.google.com/site/somaesthetics/>

¹⁶ See, for example, David Zerbib, "Soma-esthétique du corps absent," in Barbara Formis (ed.), *Penser en corps: Soma-esthétique, art, et philosophie* (Paris: L'Harmattan, 2009), 133–159; Aline Caillet, "Emanciper le corps: sur quelques applications du concept de la soma-esthétique en art," in Formis (ed.), *Penser en corps*, 99–112.

Cambridge University Press

978-1-107-01906-5 - Thinking through the Body: Essays in Somaesthetics

Richard Shusterman

Excerpt

[More information](#)

Jay helpfully extends its Deweyan democratic message to a visual art of high culture (albeit one that often deploys a style of crude lowness as part of its critical, provocative purpose).¹⁷

Somaesthetics has begun to have an impact not only on the analysis of visual art but on its practice as well. One prominent example is its use as a generative theoretical background for Peng Feng's curatorial project for the Chinese Pavilion of the 2011 Venice Biennale. Entitled *Pervasion*, this show of five installation pieces (including clouds with tea fragrance; pipes dripping with Chinese schnapps; fragrant porcelain pots of herb medicine; fog of incense; and lotus-scented virtual snow) sought to emphasize that our appreciation of even visual art is always much more than visual, and to highlight the soma's role as a transmodal perceiving subjectivity by engaging the pleasures of other bodily senses as well.¹⁸ Somaesthetics has also been used as a creative framework for a series of photographic and cinematic works that Parisian artist Yann Toma has realized in close collaboration with me. Here, I assume the role of performance artist, somatically reshaped (and somewhat challenged) by a tight-fitting gold latex body stocking through which I encounter the camera, the artist, and the wider world. If this artistic series of *SOMAFLUX* embodies one particular role that somaesthetics can play in contemporary art, it likewise exemplifies the more general aim of pragmatist aesthetics to narrow the gap between theory and practice, between philosophy and art, by inserting the philosopher – in the flesh – into active artistic practice. I elaborate some of the theoretical lessons learned from this creative adventure in Chapter 11, with a discussion of photography as performative process.¹⁹

Among political applications of somaesthetics, feminist interventions loom large. This should not be surprising, for women are traditionally identified with body and thus negatively contrasted with what our culture deems to be the superior male principle of mind. As Shannon Sullivan uses somaesthetic ideas to critique the devalorization of bodily practices associated with women and to insist (through notions of somaesthetic teaching, caring, and dialogue) that working on the body is not a merely

¹⁷ See Martin Jay, *Refractions of Violence* (New York: Routledge, 2003), 163–176.

¹⁸ For a brief account of this show and its relation to somaesthetics, see my discussion with curator Peng Feng in *Art Press* 379 (June 2011): Venice Biennale Supplement, 24–25.

¹⁹ A more personal, colorful account of this experience (including images) can be found in Richard Shusterman, "A Philosopher in Darkness and in Light: Practical Somaesthetics and Photographic Art," in Anne-Marie Ninacs (ed.), *Lucidité. Vues de l'intérieur/Lucidity. Inward Views: Le Mois de la Photo à Montréal 2011* (Montréal: Le Mois de la Photo à Montréal, 2011), 280–287.