that does not shrink from metaphor, to prepare the way for those literary experiments that underline the reality of change and relationality. The authors in this part present how the various particular writerly techniques devised by the leading writers of the modernist aesthetic revolution were attempts to align consciousness with the idea that meaningful experience must constantly negotiate its singular contours with and alongside, not against, the reality of permanent change.

As an afterthought, I would add that the discussions in Part 2 of the volume provide vistas that go beyond High Modernism. They also convincingly, if indirectly, suggest that continuous attention to James's thought makes very good sense in reference to those aesthetics that have grown out of the modernist moment and are part of the contemporary moment.

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Rüdiger Kunow. *Material Bodies: Biology and Culture in the United States*. Heidelberg: Universitätsverlag Winter, 2018. 483 pages.

Rüdiger Kunow's massive volume offers an intricate analysis of intersections of and interdependencies between biology and culture. In the sections that make up the book, the author demonstrates numerous and complex ways in which biology organizes and challenges disparate life experiences, and, in view of recent biomedical technologies, poses new theoretical questions about life, ethics, and American identity. According to Kunow, biology has become thoroughly culturized, and has transformed into "a discursive anchor in debates about what can count as a good life worth having, what relations humans develop toward their bodies, their offspring, their own old age" (7). Moreover, a significant part of cultural productions is expressed via biological imagery, thus testifying to the way biology expands beyond the sphere of exclusively scientific projects and permeates everyday practices. To bring together all these questions and concerns, the author engages various critical approaches, from materialist cultural critique, Marxism, gender studies, ecocriticism, Foucauldian biopolitics, science and technology studies and posthumanism.

While the relationship between biosciences and the humanities is not a new idea, and Kunow acknowledges influences of such new interdisciplinary fields as medical humanities, literature and medicine (and the journal of the same title), and narrative medicine to name just a few examples, *Material Bodies* calls for a profound analysis of the two-directional engagements between sciences and the humanities. "If the cultural side of biocultures," writes Kunow, "is understood merely as offering cultural counseling to scientists or as providing the ethics component required in federal grant applications in the U.S., then the biocultures project will run the risk of merely 'reinforcing the structural problematic that too often governs disciplinary relations in the academy: the sciences are rich, the humanities poor" (Clayton et al. qtd. in Kunow 20). What Kunow repeatedly emphasizes and demonstrates with a myriad of examples is the fact that literary and cultural criticism may significantly expand contexts in which biology and biocultures operate.

As promised in the title, Kunow offers an analysis of biological influences on American culture, which, in his view, has recently been marked by the process he calls "biologization of the signifier America" (17). Even though the proliferation of biology-related images and language is observable everywhere, the author claims that the discipline of American Studies has in fact shown little interest in "how biology (of the human body or the natural habitat) has been foundational for the formation and stabilizing of 'America'" (21). This seems to be a problematic statement considering a long history of processes aimed at precisely stabilizing the definition of who counts as American (or more importantly, who does not) using (pseudo)scientific discourses, that of biology included. Similarly, Kunow's take on race and gender is equally problematic. The introduction does offer an extensive summary of how biology is implicated in the production of racialized and gendered bodies, along with analyses of constructivist theories which underpin the critique of these categories as well as the intersectionality of race, class, and gender. The author explains that his emphasis on biology as a "foundational feature in thinking about race and gender" allows him to demonstrate how "the figurative energy of the discursive field of biology has been a powerful medium to render human beings differently present, at times even highly visibly different, and thus vulnerable, in the public sphere" (30). That said, in the following paragraph Kunow provides "a note of caution" that "[t]his is not a book about 'race,' nor, for that manner, about 'gender'" (31). While the author is indeed at liberty to choose his theoretical and thematic framework, ironically, the analyzed contexts and cultural and literary examples clearly demonstrate that, as far as biology and the effort to stabilize the idea of America are concerned, race and gender do come to the forefront.

In the first section, entitled "The Materialism of Biological Encounters," Kunow concentrates on the spaces of interactions between biology and mobility. Drawing from Louis Althusser's work, Kunow refers to these interactions as "biomedical encounters" and demonstrates how these seemingly unambiguous communal events produce serious social geopolitical consequences. In a series of examples, the chapter shows how the context of human mobility creates situations of the mingling of biological materials (bacteria, microbes, and viruses, to name just a few). Thus, human mobility can no longer be perceived solely in terms of individual interactions, productive in their intellectual and cultural potential, but instead becomes subject to policies regarding the prevention and containment of contagious diseases such as SARS, MERS, avian and pig influenzas or HIV-AIDS. The examples selected by Kunow-the case of Mary Mallon better known as Typhoid Mary, the Bubonic Plague of 1899-1990 and the discourse of the "Yellow Peril" used in relation to Chinese immigrants as well as epidemics of Yellow Fever in New York (1668) and Boston (1691), to mention just a few—aptly illustrate various critical debates that biomedical encounters initiate: mobility and (im)migration, the postcolonial context of human mobility, the spread of epidemics in public discourse, and public health and the methods of its protection. The topic of public health and its representation in mass media is emphasized in the second part of the first section. Here, Kunow uses various literary and pop culture examples to illustrate the "culturization" of mass disease. The proliferation of representations of mass diseases is a fascinating phenomenon as well as a somewhat ironic choice of

emphasis: even though cardiovascular diseases and cancer are the main causes of death in the United States, it is rare infectious diseases such as MRSA (Methicillin-resistant Staphylococcus aureus) that receive the most attention (Kunow 132-33). Moreover, using a number of contemporary films and literary works, Kunow analyzes the emergent language of mass disease which is characterized by the well-known pervasive application of military metaphors (invasion) as well as the production of new terms and concepts ("biological vulnerability" or "biological containment").

Section two, entitled "Not Normatively Human: Cultural Grammars and the Human Body," begins with an exhaustive analysis of the creation and functions of bodily norms in Western culture. Biology actively participates in the creation and promotion of categories defining normalcy and setting standards of beauty, health, fitness, etc. thus demonstrating its entanglement with cultural ideas about what constitutes the normal. Drawing from the work of Georges Canguilhem, Michel Foucault, and Jürgen Habermas, the author reveals the often contradictory nature of logic applied in the creation of norms: norms rely on binaries, they are descriptive and prescriptive, and they are fixed and at the same time flexible to react to changing historical and social conditions. To illustrate this versatility of norms, Kunow analyzes such diverse phenomena as the cultural requirement to comply with body ideals (Audre Lorde's Cancer Journals), ageism and disability. Ageism and disability are discussed in separate, lengthy subsections and perspectives are offered from the critical positions of Age Studies and Disability Studies. Again, Kunow provides many interesting cultural and literary examples (Philip Roth's Everyman, the autobiographies of disabled war veterans, Indra Sinha's Animal's People) to demonstrate how the conditions of being old and disabled depart from what the culture defines as normal. However, these categories "do not have a stable referent in bodily conditions (be they mental or physical) but are instead realized in communicative interaction in the public domain" (321). It is precisely in social interactions where Kunow identifies the space of emerging non-normative categories that reject the confining logic of binaries.

The third section, entitled "Corporeal Semiotics: The Body of the Text/ the Text of the Body," begins with questions about the ways in which genetics and molecular technologies redefine the ways in which the body is given cultural and social presence and how its perceptions are dramatically challenged by a possibility of intervention on the body's smallest possible building blocks. Genetics, which as Kunow rightly observes, has quickly entered popular culture to produce a rich body of technologically-driven imagery, has also created new discourses pertaining to describe new experiences of corporeality. To provide a theoretical and thematic framework for these considerations, Kunow discusses the relationship of soma and seme, body and meaning, materiality and culture, and also the textuality of the body and what such a concept may entail in the era of genetics. Again, the discussion aptly illustrates the author's point and gives a sense of the complexity of the problem. The section addresses topics as diverse as Emmett Till's case, harvesting organs for transplants, genetic screening, and technology-based body enhancement. In the middle subsection, Kunow shifts his gaze to the theme of pain and the question of multiple meanings ascribed to this particular manifestation of embodiment. The last subsection provides a thematic closure to the two previous subsections as it discusses various images of cancer(s).

Drawing on the seminal work of Susan Sontag and Siddhartha Mukherjee's more recent *The Emperors of All Maladies*, Kunow summarizes the most prevalent ideas about cancer and its cultural representations, and moreover, demonstrates how discourses of biotechnologies expand this discussion. An interesting example is Kunow's analysis of a case described in Rebecca Skloot's *The Immortal Life of Henrietta Lacks*, which "invites renewed reflection of the spatial and temporal circumference of the human body and human life in general" (404).

Material Bodies is impressive in its scope, a well-researched and elegantly written book about the intersections of biology and culture, a connection that cannot be ignored in the context of contemporary applications of biomedical technologies. Kunow poses probing questions and provides countless examples from popular culture, literature, film, and biosciences. Moreover, he can boast fluency in an array of theoretical approaches, which demonstrates to what great extent the analyzed phenomena engage a number of disciplines and create new discourses of approaching the human body and the experience of life in the twenty-first century. The book is indeed an interdisciplinary and highly engaging project.

However, there arises the question of whether limiting the scope of inquiry would not have greatly benefited the entire project. In fact, each of the three sections provides ample material for a separate book, which, considering the author's erudition and dedication, would produce excellent results. Moreover, a more limited scope would allow for a more exhaustive analysis of the selected cultural and literary texts, and a concentration on issues that are not in the background of inquiry, for instance race and gender. More emphasis on the interconnection between genetics and race would allow for a demonstration of how biosciences are often employed to recreate well-known racial categories and how they become implications implicates in biocolonialism practices, which in turn would serve as an opportunity to engage in a discussion of the excellent work of Jenny Reardon on the Human Genome Project.

Finally, considering the size of the book, the organization into chapters calls for a better execution. *Material Bodies* consists of three long sections and, as the reader learns from the contents, smaller subsections which in the text are referred to as chapters. However, there is almost no visual separation (line breaks, titles in bold, a larger font) which announces the beginning of a new chapter, which leaves the reader with a sense of dealing with three massive thematic sections. Moreover, the closing chapter does not offer a comprehensive summary of the presented arguments. Instead, the author concentrates on multiplying questions to ponder, whereas the reader would perhaps appreciate an elegant summary. Similarly, the book does not include an index, which, considering the size and scope of the project, is a serious disadvantage and makes navigating the text truly difficult.

All in all, *Material Bodies* is a highly recommended text for all scholars interested in the topic of biocultures, as well as those searching for interesting material for research or class use. Kunow poses penetrating questions and offers illuminating analyses supported by well-selected literary and cultural examples.