Evolution's Eye: A Systems View of the Biology-Culture Divide (Science and Cultural Theory)

Susan Oyama
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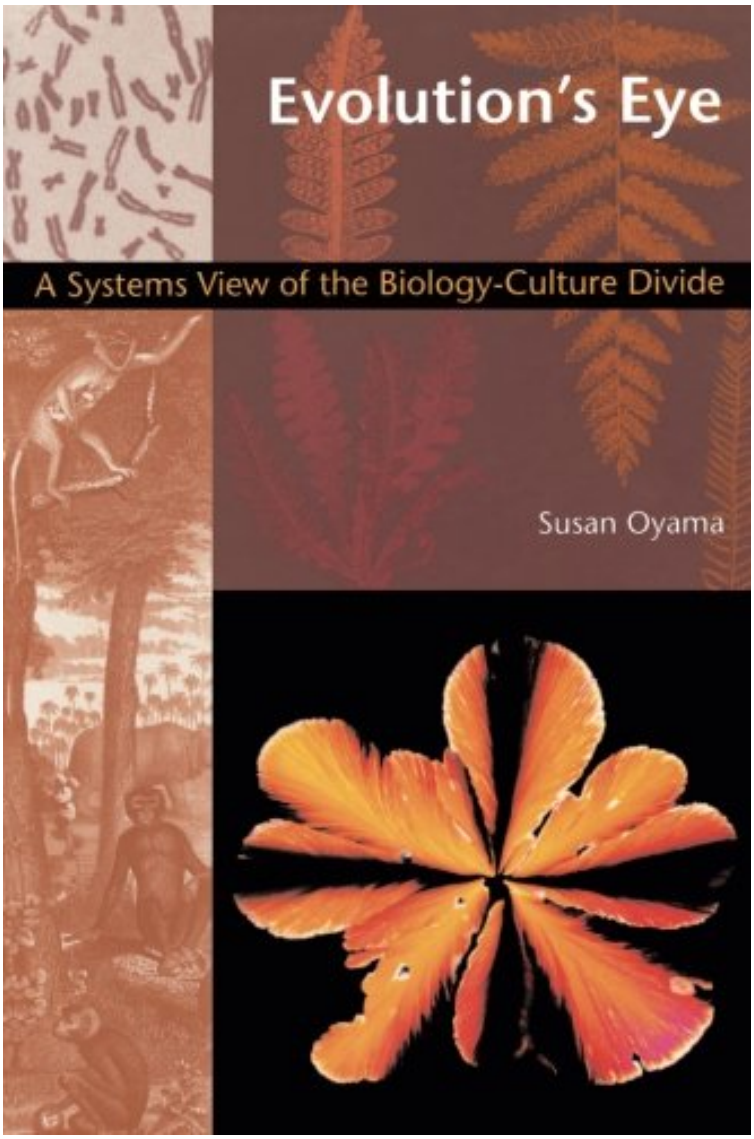

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Susan Oyama : Evolution's Eye: A Systems View of the Biology-Culture Divide (Science and Cultural Theory) before purchasing it in order to gage whether or not it would be worth my time, and all praised Evolution's Eye: A Systems View of the Biology-Culture Divide (Science and Cultural Theory):

44 of 47 people found the following review helpful. Essential reading for those interested in anti-essentialismBy Henry BarnardThis is a collection of essays that advances the interesting arguments of Oyama's earlier work: `The

ontogeny of information'. Oyama helps us to rethink in subtle and complex ways the concepts of `biology', `inheritance', `nature', `evolution', and so on and she also reconfigures the relationships between them. Together the reworkings of these ideas provide a sophisticated framework which eschews various forms of reductionism and determinism whilst emphasising contingency, history, and complexity. Her discussions of developmental systems are essential reading for anyone seeking a more complex way of engaging with the complexity of life and our understanding of it.1 of 5 people found the following review helpful. Bad philosophy of developmental biologyBy Tim TylerThis is a book about incorporating developmental biology into evolutionary theory. The book is split into two sections, roughly to do with science and its human impact. The "science" section is a series of rants with the theme that evolutionary theorists messed up evolutionary theory and developmental biologists are the ones to fix it. The "human impact" section looks into the harm done to various minorities and down-trodden folk by policies based on the bad biology discussed in the first section.Though the topic of the first section science, the approach is philosophical. There's practically no talk about measuring things or performing experimental tests. One of Susan's main themes is that scientists split thing up too much. In going so, they miss out the glorious complexities of the interactions between the parts. Splits such as those between nature and nurture, biology and culture and organism and environment are described as dualisms to be vanquished. As a big proponent of splitting complex things up in order to analyze them, many of Susan's positions made no sense to me. As far as I could see, Susan showed no understanding of why so many scientists like to split things up in the first place. That's not a good position from which to launch criticisms. Alas, this lack of understanding of scientific practice isn't the biggest flaw in the book. What irritated me most was the combination of ignorance and arrogance. Susan obviously sees herself as a scientific revolutionary and seems to be very confident of her own position. Displays of confidence often play a signaling role and that seems to be the case here: Susan is apparently being overconfident in the hope of being persuasive. In my opinion, if you disagree with so many other biologists, you ought to have a bit of humility.This was all rather a shame. Developmental biology was left out of the evolutionary synthesis on the 1930s. There, it was treated as a black box. That's not an unreasonable way to deal with some of the complexities of development, but it was inevitable that some evolutionists would at some point delve into the box. Susan has presumably delved into the box, but she doesn't seem to have managed to present her findings in a manner digestible to other scientists. Instead she seems to be trying to start a kind of bizarre developmental biology cult where members compete to see who's the most holistic. It looks as though others will have to perform the required work.Like Susan, I see myself as an evolution revolutionary. Most of the things I learned from the book were to do with how not to present a scientific revolution. I'm pretty sure that that's not the lesson which she was going for.

In recent decades, Susan Oyama and her colleagues in the burgeoning field of developmental systems theory have rejected the determinism inherent in the nature/nurture debate, arguing that behavior cannot be reduced to distinct biological or environmental causes. In Evolutions Eye Oyama elaborates on her pioneering work on developmental systems by spelling out that works implications for the fields of evolutionary theory, developmental and social psychology, feminism, and epistemology. Her approach profoundly alters our understanding of the biological processes of development and evolution and the interrelationships between them. While acknowledging that, in an uncertain world, it is easy to blame it on the genes, Oyama claims that the renewed trend toward genetic determinism colors the way we think about everything from human evolution to sexual orientation and personal responsibility. She presents instead a view that focuses on how a wide variety of developmental factors interact in the multileveled developmental systems that give rise to organisms. Shifting attention away from genes and the environment as causes for behavior, she convincingly shows the benefits that come from thinking about life processes in terms of developmental systems that produce, sustain, and change living beings over both developmental and evolutionary time. Providing a genuine alternative to genetic and environmental determinism, as well as to unsuccessful compromises with which others have tried to replace them, Evolutions Eye will fascinate students and scholars who work in the fields of evolution, psychology, human biology, and philosophy of science. Feminists and others who seek a more complex view of human nature will find her work especially congenial.

From Publishers WeeklyEvolution's everywhere these days, and some of its most strenuous public explainers like to make claims about genes and human nature: often they say they can show how the first shape the second. Oyama (The Ontogeny of Information) wants to complicate that picture. Her subtle and sometimes abstruse study of recent concepts in biology and social science--concepts like "evolution," "development," "phenotype," "construction" and "competition"--aims to displace models of selfish genes with models of competing and interacting processes: these processes, working at every level, can improve our explanations of how populations and (especially) people grow, differ and change. Oyama's developmental systems theory draws on the newish field of "science studies" (in which philosophers and sociologists look at the assumptions and logic of scientific disciplines), on biologists' critiques of their field (among them Richard Lewontin and Evelyn Fox Keller) and on bits of literary theory. A professor of psychology at New York's John Jay College of Criminal Justice and at the CUNY Graduate Center, Oyama writes for

a highbrow audience, though one spread across many disciplines. Her prose can sound too academic or drably general: she hopes, for example, "to adopt a thoroughgoing interactive constructivism with respect to both developmental and evolutionary processes." What she means is that she wants to think--and to get us to think--about how culture, environment and genetic programming are constantly "talking to" one another, and how it's their interaction that creates us. It's a worthy goal, and one her book should advance. Illus. (May) Copyright 2000 Reed Business Information, Inc. Oyama writes elegantly and from a deep intellectual base. This alternative view to the dominant genetic determinism will be of interest to all who seek a more complex view of human nature. It is an excellent book, beautifully composed.Katherine Nelson, City University of New York