Google Drive



Ontogeny and Phylogeny

Stephen Jay Gould

Download now

Click here if your download doesn"t start automatically

Ontogeny and Phylogeny

Stephen Jay Gould

Ontogeny and Phylogeny Stephen Jay Gould

"Ontogeny recapitulates phylogeny" was Haeckel's answer--the wrong one--to the most vexing question of nineteenth-century biology: what is the relationship between individual development (ontogeny) and the evolution of species and lineages (phylogeny)? In this, the first major book on the subject in fifty years, Stephen Gould documents the history of the idea of recapitulation from its first appearance among the pre-Socratics to its fall in the early twentieth century.

Mr. Gould explores recapitulation as an idea that intrigued politicians and theologians as well as scientists. He shows that Haeckel's hypothesis--that human fetuses with gill slits are, literally, tiny fish, exact replicas of their water-breathing ancestors--had an influence that extended beyond biology into education, criminology, psychoanalysis (Freud and Jung were devout recapitulationists), and racism. The theory of recapitulation, Gould argues, finally collapsed not from the weight of contrary data, but because the rise of Mendelian genetics rendered it untenable.

Turning to modern concepts, Gould demonstrates that, even though the whole subject of parallels between ontogeny and phylogeny fell into disrepute, it is still one of the great themes of evolutionary biology. Heterochrony--changes in developmental timing, producing parallels between ontogeny and phylogeny--is shown to be crucial to an understanding of gene regulation, the key to any rapprochement between molecular and evolutionary biology. Gould argues that the primary evolutionary value of heterochrony may lie in immediate ecological advantages for slow or rapid maturation, rather than in long-term changes of form, as all previous theories proclaimed.

Neoteny--the opposite of recapitulation--is shown to be the most important determinant of human evolution. We have evolved by retaining the juvenile characters of our ancestors and have achieved both behavioral flexibility and our characteristic morphology thereby (large brains by prolonged retention of rapid fetal growth rates, for example).

Gould concludes that there may be nothing new under the sun, but permutation of the old within complex systems can do wonders. As biologists, we deal directly with the kind of material complexity that confers an unbounded potential upon simple, continuous changes in underlying processes. This is the chief joy of our science."

Download Ontogeny and Phylogeny ...pdf

Read Online Ontogeny and Phylogeny ...pdf

Download and Read Free Online Ontogeny and Phylogeny Stephen Jay Gould

---

From reader reviews:

Karon Hall:

Here thing why this Ontogeny and Phylogeny are different and trustworthy to be yours. First of all examining a book is good but it depends in the content than it which is the content is as delightful as food or not. Ontogeny and Phylogeny giving you information deeper as different ways, you can find any e-book out there but there is no publication that similar with Ontogeny and Phylogeny. It gives you thrill reading through journey, its open up your current eyes about the thing in which happened in the world which is possibly can be happened around you. It is easy to bring everywhere like in playground, café, or even in your method home by train. If you are having difficulties in bringing the published book maybe the form of Ontogeny and Phylogeny in e-book can be your alternate.

Brandon Phelan:

This Ontogeny and Phylogeny is great publication for you because the content which can be full of information for you who also always deal with world and still have to make decision every minute. This particular book reveal it facts accurately using great organize word or we can claim no rambling sentences included. So if you are read that hurriedly you can have whole details in it. Doesn't mean it only will give you straight forward sentences but hard core information with beautiful delivering sentences. Having Ontogeny and Phylogeny in your hand like having the world in your arm, data in it is not ridiculous one. We can say that no guide that offer you world throughout ten or fifteen small right but this book already do that. So , it is good reading book. Hello Mr. and Mrs. busy do you still doubt that?

Fernando Gallimore:

The book untitled Ontogeny and Phylogeny contain a lot of information on this. The writer explains your girlfriend idea with easy approach. The language is very straightforward all the people, so do not necessarily worry, you can easy to read this. The book was written by famous author. The author will take you in the new age of literary works. You can easily read this book because you can read on your smart phone, or product, so you can read the book throughout anywhere and anytime. In a situation you wish to purchase the e-book, you can wide open their official web-site and also order it. Have a nice study.

Cheryl Burnett:

You will get this Ontogeny and Phylogeny by check out the bookstore or Mall. Just simply viewing or reviewing it may to be your solve trouble if you get difficulties on your knowledge. Kinds of this e-book are various. Not only through written or printed but can you enjoy this book through e-book. In the modern era such as now, you just looking by your local mobile phone and searching what their problem. Right now, choose your ways to get more information about your reserve. It is most important to arrange you to ultimately make your knowledge are still up-date. Let's try to choose correct ways for you.

Download and Read Online Ontogeny and Phylogeny Stephen Jay Gould #8CWKSIYOABR

Read Ontogeny and Phylogeny by Stephen Jay Gould for online ebook

Ontogeny and Phylogeny by Stephen Jay Gould Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Ontogeny and Phylogeny by Stephen Jay Gould books to read online.

Online Ontogeny and Phylogeny by Stephen Jay Gould ebook PDF download

Ontogeny and Phylogeny by Stephen Jay Gould Doc

Ontogeny and Phylogeny by Stephen Jay Gould Mobipocket

Ontogeny and Phylogeny by Stephen Jay Gould EPub