

not entirely new; neither is the “conventional” so orthodox or immovable.

The chapter Decentralization and Innovation is an original approach and view of evolution. However, implementing nonbiological models to biological ones has impressions, biases, and controversies, especially when attempting to fit biological concepts into a rigid scheme. “Genes” are in the same column as communications and money (centralized/hierarchical), and as part of their characterizations include vertical evolution, in contra parts (decentralized/networked), horizontal transfer. However, the positions of the concepts in a column are controversial or at least diffuse. Vertical evolution is an idea that existed before gene concepts, and horizontal transfer could be implemented after gene concepts. Regardless, this new approach gives a fresh view that produces a different perspective.

There are many rewards to reading the book, but one of the best is the introduction of symbiogenesis and holobiont ideas. These are fruitful discussions for biologists and nonbiologists, have a natural connection with the volume’s nature and the link to health, connecting to stimulating and provocative ideas in the book’s second part.

Overall, *The Network of Life* is engaging and contains exciting text with controversial points, especially for evolutionary biologists, but also will be interesting for a wide range of readers.

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CORTICAL EVOLUTION IN PRIMATES: WHAT PRIMATES ARE, WHAT PRIMATES WERE, AND WHY THE CORTEX CHANGED.

By Steven P. Wise. Oxford and New York: Oxford University Press. \$65.00. xxvii + 370 p.; ill.; index. ISBN: 9780192868398. 2024.

The evolution of primates’ large brains continues to attract attention. In this book, Steven Wise brings a welcome intervention from neuroscience—a discipline too often missing from these discussions. The volume is organized into two main themes. The first seeks to understand how primate brains have evolved since their last common ancestor with generic mammals some 60-odd million years ago. It tracks the changes over time in brain regions as reflected in endocasts, embedding this into the environmental context of these extinct species. It is insightful, imaginative, and elegant.

The second theme seeks to explain this evolution exclusively in terms of food-finding benefits—to the explicit detriment of the social brain hypothesis, which Wise evidently abhors. “[T]he cognitive demands related to visually guided movement and vi-

sion-based foraging drove cortical expansion in late Eocene primates, not factors related to complex societies” (p. 292) he asserts, and then extrapolates to the rest of primate evolution. Arguably, the Eocene transition might have been due to an enforced switch in diet (thanks to competition from the squirrels), but *all* primate evolution? Here, alas, the book loses its way and succeeds in committing, in combination, all of the logical traps and fallacies that have bedevilled so much of the recent literature.

I was bemused to find my publications cited as evidence that predation is unimportant. Not only have I never made any such claim, but the evidence (if you have ever done field work) is quite the contrary. I can personally vouch for that, having myself been stalked (on foot, at night) by hyena (one of the main predators of terrestrial primates), not to mention watched them run down my study animals (antelope): the real world that primates (and humans) are obliged to inhabit is rather more terrifying and dangerous than the comfort of the average American laboratory.

Oddly, there is no mention of the volumes of relevant neuroimaging evidence. This shows, for both humans and Old World monkeys, that brain size correlates with social network size at the individual level; that the neural circuits involved are by far the largest and most complex in the brain; that these circuits are specifically concerned with processing social cognitive skills; that processing social information is physiologically much more expensive than processing information about the physical world; and that species’ differences in the detailed structure of the social brain mirror beautifully their differences in social competences.

Of equal importance is the failure to mention the tsunami of long-term epidemiological studies of humans, as well as wild primates and other mammals, showing that socially well-embedded individuals gain huge fitness advantages in terms of recovery from injury, survival, fertility, and grandchildren. And all of this in a social environment that is extraordinarily challenging to navigate—as anyone who has ever had a genuine relationship to deal with knows only too well.

Perhaps luckily, nothing much hinges on these claims and omissions, although they will no doubt mislead readers new to the field. The book still has much to offer that is new and exciting where Wise is on firmer ground with the paleoanatomical story.

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