Quirks of Human Anatomy: An Evo-Devo Look at the Human Body

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gin for an understanding of how other countries' experiences will continue to bear on this discussion.

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QUIRKS OF HUMAN ANATOMY: AN EVO-DEVO LOOK AT THE HUMAN BODY

By Lewis I. Held Jr
260 pp, $34.99
New York, NY, Cambridge University Press, 2009
ISBN-13: 978-0-5215-1848-2

WHEN ASKED TO REVIEW *QUIRKS OF HUMAN ANATOMY*, I ANticipated a new book on anatomical variations, a book that might help explain those changes from the norm physicians are taught in graduate training. I was unpleasantly surprised, therefore, when at first glance it appeared to be simply yet another book on evolution. However, I was then pleasantly surprised to find that it is an interesting and thoughtful book that comes to the reading public in honor of the 150th anniversary of *The Origin of Species* and Darwin's 200th birthday. After a century and a half, the arguments still fly when the topic of the evolution or creation of humankind arises. This book by Lewis I. Held Jr will become a helpful part of addressing the debate. It opens by stating the arguments of evolution and offers a plethora of interesting case studies and examples. Its value is enhanced by its presentation of unique schematic diagrams, its Socratic question-and-answer format, and its extensive review of the pertinent literature.

The book is, at times, humorous and whimsical but always accurate in addressing the issue, principally from an embryological perspective. It presents numerous tables and illustrations and more than adequate commentary. Held argues (as did Darwin) that the confounding occurrences in embryology (" . . . *making structures we don't need . . . and then destroying them.*") was enough to be convincing evidence of the descent of humankind.

Quirks of Human Anatomy was written primarily with the graduate student in mind and has succeeded in discussing evolution from an embryological perspective, but it falls a bit short in its promise to purge this discussion of jargon. Overall, the book is a good read for those interested in evolutionary biology and should be a successful book in the hands of those students Held is aiming to reach.

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FAT, GLUTTONY AND SLOTH: OBESITY IN LITERATURE, ART AND MEDICINE

By David W. Haslam and Fiona Haslam
326 pp, $39.95
Liverpool, UK, Liverpool University Press, 2009.
ISBN-13: 978-1-8463-1094-2

THE RANKS OF OVERWEIGHT ADULTS AND CHILDREN CONtinue to increase. For the first time in history, overweight persons actually outnumber those who are malnourished. Obesity now kills more men and women in developed nations than war, terrorist attacks, or climate changes. On average, obese individuals forfeit about 9 years of life. The authors of *Fat, Gluttony and Sloth: Obesity in Literature, Art and Medicine* do not pull any punches: "Fat people will have a role in their own extinction."

Fat, Gluttony and Sloth is not a rant about fearing flab. Nor is it simply a call to arms for more drastic tactics in the battle against bulging waistlines. Instead, the book sizes up obesity from all kinds of vantage points—popular culture, history, art, science, and literature. The book presents ample illustrations, including political cartoons, photographs, movie stills, postcards, comic strips, advertisements, and paintings by numerous artists. As might be expected, the bulk of these images display plump, fleshy, and morbidly obese individuals.

The tantalizing trivia are not limited to cultural references. For example, how many nongastroenterologists know that human beings generate approximately 1 liter of gas from the digestion of food each day? However, although the reader will encounter delectable scientific terminology such as ghrelin (the hunger hormone), adiponectin, insulin resistance, leptin, and the fat mass and obesity associated (*FTO*) gene, *Fat, Sloth and Gluttony* is otherwise rather lean on purely medical content. On the other hand, the book is gorged with historical tidbits. For example, ancient Egyptians, giving new meaning to the expression "food pyramid," reportedly induced vomiting, purged themselves, and fasted multiple times each month to balance caloric intake and maintain health. Saint Francis of Assisi purportedly placed ashes on his food to eliminate any pleasure derived from eating. William the Conqueror may have been too heavy to ride a horse, so in 1086 he began a weight-reducing program consisting solely of alcohol and avoidance of food. Galen, physician to gladiators, "thought that a good doctor should also be a good cook." An extract of the cactus *Hoodia gordonii* has been used as an appetite suppressant by Xhomani Sans bushmen of the Kalahari desert during lengthy hunting journeys. One of the heaviest men in history tipped the scales at more than 1400 lb; his body mass index was 105, and 13 assistants were required to turn him in bed. Such "super obese" individuals often die in their early 40s, commonly of congestive heart failure.

A chapter titled "Fat on Film" reminds readers that some movie stars are indeed larger than life. These Hollywood heavyweights are primarily comedic men: Norvell (Oliver)

Quirks of Human Anatomy illustrates the genetic basis and developmental pathways underlying what gross anatomists have come to label â€œfluctuating asymmetriesâ€â€”and traces the evolutionary history of those processes. Author Louis Held brings readers a rich and extensively documented exploration of the evolutionary and developmental bases of modern human anatomy.Â The rich array of evoâ€“devo research that is brought to bear in Quirks of Human Anatomy provides another independent line of evidence for our connection to the tree of life. Author information. Affiliations. 1. Background 2. Symmetry and asymmetry 3. Mysteries of the midline 4. Merism and modularity 5. Sexual dimorphisms 6. Silly, stupid, and dangerous quirks 7. Mind and brain. View PDF. Save to Library. Create Alert. Cite. Launch Research Feed. Share This Paper.Â Uncanny Similarities of Humans and Flies Uncovered by Evo-Devo. L. Held. Biology. 2017. 10. PDF. Save. With its focus on the human organism, Quirks of Human Anatomy opens the floodgates by stating the arguments of evo-devo in plain English, and by offering a cornucopia of interesting case studies and examples. Its didactic value is enhanced by 24 schematic diagrams that integrate a host of disparate observations, by its Socratic question-and-answer format, and by its unprecedented compilation of the literature.Â Following the rise of Evo-Devo-and the creation of new subfields such as Evolutionary Developmental Paleontology (S anchez-Villagra, 2010)-there have been attempts, in recent decades, to investigate human anatomy and birth defects under a more modern evo-devo perspective. "Evo-devo" uses our genome as a Rosetta Stone to decipher our past. Quirks of Human Anatomy takes the reader back to a time when there were no males or females, no arms and legs as we know them, and only rudimentary eyes. From that perspective our anatomical flaws make sense as the quirky outcomes of our peculiar history. About the Author. Dr Lewis I. Held earned his BS in Life Sciences from the Massachusetts Institute of Technology in 1973.Â Held does an excellent job of exploring and explaining some quirks of human anatomy. Through a series of interesting and provocative questions, he examines human development and evolution in an entertaining and didactic but rigorous way. Held does an excellent job of exploring and explaining some quirks of human anatomy. Through a series of interesting and provocative questions, he examines human development and evolution in an entertaining and didactic but rigorous way. Using the coined term "bislagiatt," an acronym for "but it seemed like a good idea at the time", and an array of fascinating diagrams with detailed explanations, the author sets out to show how the current discipline of evolutionary development, or evo-devo, can address some of the most fundamental aspects of human form, growth, and develop