

#### **Patterns of Human Growth**

#### Third Edition

This completely revised edition provides a synthesis of the forces that shaped the evolution of the human growth pattern, the biocultural factors that direct its expression, the intrinsic and extrinsic factors that regulate individual development, and the biomathematical approaches needed to analyze and interpret human growth. After covering the history, philosophy, and biological principles of human development, the book turns to the evolution of the human life cycle. Later chapters explore the physiological, environmental, and cultural reasons for population variation in growth, and the genetic and endocrine factors that regulate individual development. Using numerous historical and cultural examples, Social-Economic-Political-Emotional forces are also discussed. A new chapter introduces controversial concepts of community effects and strategic growth adjustments, and the author then integrates all this information into a truly interactive biocultural model of human development. This remains the primary text for students of human growth in anthropology, psychology, public health, and education.

**Barry Bogin** is Professor Emeritus of Biological Anthropology, Loughborough University, UK and Professor Emeritus of Anthropology, University of Michigan-Dearborn, USA. Bogin is a member of the University of California San Diego/Salk Center for Academic Research and Training in Anthropogeny (CARTA), USA. He has expertise in human physical growth and development, nutritional ecology, evolutionary biology, Maya people, and human adaptation. The focus of his research is to explain how social, economic, political, and emotional forces influence human physical development. He has authored more than 230 books, articles, book chapters, and popular essays.





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# Third Edition

### **BARRY BOGIN**

Loughborough University, UK University of California San Diego/Salk Center for Academic Research and Training in Anthropogeny (CARTA), USA





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Dedicated to the memory of my mentor Gabriel Ward Lasker in admiration and eternal friendship.

Dedicated with love to my daughter Rachael and her daughters Anabella and Charlotte, my son Josh, and my daughter Isabel Jian-Ni. Wishing you comfort, learning, productive work, love for each other, and ever-lasting hope.





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Color plates can be found between pages 306 and 307.



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Since the publication of the second edition in 1999 I became a member of the *Center for Academic Research and Training in Anthropogeny* (CARTA). "Anthropogeny" is a word first used in the 1839 edition of Hooper's Medical Dictionary and defined as "the study of the generation of man." Today the word is defined as the investigation of the origin of humans. CARTA is an international and virtual organization, formed at the University of California San Diego and the Salk Institute for Biological Studies, to promote transdisciplinary research into human origins, drawing on methods from many disciplines spanning the social, biomedical, biological, computational and engineering, physical and chemical sciences, and the humanities. Professor Ajit Varki, one of CARTA's founders discovered me by reading *Patterns of Human Growth* and invited me to join. This new edition benefits from the learning provided at many CARTA symposia, both in person and online. I wish to



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