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978-0-521-88418-1 - Genetic Analysis: A History of Genetic Thinking

Raphael Falk

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Genetic Analysis

There is a paradox lying at the heart of the study of heredity. To understand the ways in which features are passed on from one generation to the next, we have to dig deeper and deeper into the ultimate nature of things – from organisms, to genes, to molecules. And yet as we do this, increasingly we find we are out of focus with our subjects. What has any of this to do with the living, breathing organisms with which we started? Organisms are living. Molecules are not. How do we relate one to the other?

In *Genetic Analysis*, one of the most important empirical scientists in the field in the twentieth century attempts, through a study of history and drawing on his own vast experience as a practitioner, to face this paradox head-on. His book offers a deep and innovative understanding of our ways of thinking about heredity.

RAPHAEL FALK is Emeritus Professor, Department of Genetics and The Program for the History and Philosophy of Science at The Hebrew University of Jerusalem. His many works include *The Concept of the Gene in Development and Evolution: Historical and Epistemological Perspectives*, co-edited by Peter J. Beurton and Hans-Jörg Rheinberger (2000, 2008).

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Jerusalem, Israel*



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UNIVERSITY PRESS

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CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org
Information on this title: www.cambridge.org/9780521884181

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First published 2009

Printed in the United Kingdom at the University Press, Cambridge

A catalog record for this publication is available from the British Library

Library of Congress Cataloging in Publication data

Falk, Raphael.

Genetic analysis : a history of genetic thinking / Raphael Falk.

p. ; cm. – (Cambridge studies in philosophy and biology)

Includes bibliographical references and index.

ISBN 978-0-521-88418-1 (hardback) 1. Genetics–History. I. Title. II. Series:

Cambridge studies in philosophy and biology.

[DNLM: 1. Genetics. 2. Genetics–history. 3. History, 19th Century. 4. History, 20th Century. QU 450 F191g 2009]

QH428.F35 2009

576.5–dc22

2009004699

ISBN 978-0-521-88418-1 hardback

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Is the growth of science essentially so slow and so continuous that our attention is attracted only by the sudden showy change, which, like the bursting of a chrysalis, is merely the sequel to something of more importance which went before? Or, does a particular piece of work . . . have a value per se which transcends the others completely? Probably both questions should have affirmative answers.

(East, 1923, 227)

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Acknowledgments

I am very fortunate to have had most inspiring and stimulating teachers. I have been especially influenced by Georg Haas in Zoology, and Elisabeth Goldschmidt in Genetics at the Hebrew University, and by Gert Bonnier at the Genetiska Institutet in Stockholms Högskola in Sweden. My insights were formulated further during the years of my post doctoral studies with Herman J. Muller, Curt Stern, and Paul Margolin. Jim Crow, Larry Sandler Dick Lewontin, and Ed Novitski helped me to examine my understanding and develop it further.

Interacting with my colleague Jacob Wahrman was an inexhaustible intellectual and scientific challenge to me. Yehuda Elkana and Yemima Ben-Menahem were most instrumental in assisting me to proceed, after thirty years at the laboratory bench, into the disciplines of the philosophy and history of science. I was most fortunate to spend a year in the Institute of Advanced Studies in Berlin where I tried to absorb as much as possible from Bob Cohen, Everett Mendelsohn, “Peter” Hempel, Tim Lenoir, Peter Bieri, Peter Weingart, and many other colleagues.

Over the years of writing this book I have been greatly helped by consulting many colleagues; more specifically, I was assisted by Moshe Feldman, Snait Gissis, Oren Harman, Eva Jablonka, Staffan Müller-Wille, Vitězslav Orel, Sam Schweber, Giora Simchen, Frank Stahl, Dudy Tzfati, and many others to whom I apologize for not naming them.

Miriam Greenfield turned my English into a respectable language. John Forder saved the text by his conscientious proof-reading. Yael Oren helped with the graphics. Michael Ruse, my editor, was a vital source of support and encouragement in the innumerable crises, from the planning of this volume to its publication.

My wife, Ruma Falk, has been an untiring support and an incredible source of inspiration and insight. Her intellectual devotion and thorough,

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Acknowledgments

uncompromising analysis has always been for me a beacon to strive to follow.

I wish to thank them all, and the many whom I did not mention by name, for their help in bringing to fruition this attempt to evaluate the role of genetic analysis in the intellectual context of contemporary life sciences.