

The Two Halves of the Brain

Information Processing in the Cerebral Hemispheres

edited by Kenneth Hugdahl and René Westerhausen

**The MIT Press
Cambridge, Massachusetts
London, England**

© 2010 Massachusetts Institute of Technology

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

MIT Press books may be purchased at special quantity discounts for business or sales promotional use. For information, please email special_sales@mitpress.mit.edu or write to Special Sales Department, The MIT Press, 55 Hayward Street, Cambridge, MA 02142.

This book was set in Stone Serif and Stone Sans by Toppan Best-set Premedia Limited. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

The two halves of the brain : information processing in the cerebral hemispheres / edited by Kenneth Hugdahl and René Westerhausen.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-262-01413-7 (hardcover : alk. paper) 1. Cerebral dominance. 2. Laterality.

I. Hugdahl, Kenneth. II. Westerhausen, René, 1976-

[DNLM: 1. Functional Laterality—physiology. 2. Cerebrum—physiology. 3. Dominance, Cerebral—physiology. WL 335 T974 2010]

QP385.5.T86 2010

612.8'25—dc22

2009039297

10 9 8 7 6 5 4 3 2 1

Preface

The current volume is a follow-up to the two previous MIT Press volumes on hemispheric asymmetry and brain laterality in 1995 (Davidson & Hugdahl: *Brain Asymmetry*) and 2003 (Hugdahl & Davidson: *The Asymmetrical Brain*). The main reason for an update is that the field is rapidly expanding again, after a resting period in the last decade, attracting the interest of a new generation of researchers. This renewed interest in hemispheric asymmetry is coming both from new theoretical approaches and applications to new areas and from the development of new measuring techniques. Another new trend in the literature is the increasing number of international researchers engaged in hemispheric asymmetry research. The current volume clearly reflects these trends with a mix of well-established and young researchers, reflecting both continuity and novelty. There are 21 contributions from 11 countries (the United States, Japan, the United Kingdom, Germany, Italy, New Zealand, France, the Netherlands, Finland, Norway, and Sweden), and four different continents, covering the range of asymmetry research from the molecular to the cognitive and clinical level of explanation. It has been the ambition of the editors to present a comprehensive update on the field. With all the challenges and pitfalls inherent in such an ambitious undertaking, we think that the current volume has been successful in achieving its goals.

Kenneth Hugdahl and René Westerhausen
Bergen, Norway, May 2009