

Published by:

ELSEVIER SCIENCE PUBLISHERS B.V.
Sara Burgerhartstraat 25
P.O. Box 211
1000 AE Amsterdam
The Netherlands

Distributors for the United States and Canada:

ELSEVIER SCIENCE PUBLISHING COMPANY, INC.
655 Avenue of the Americas
New York, N.Y. 10010
U.S.A.

Cover design: Nigel Hynes

Library of Congress Cataloging-in-Publication Data

The Discipline of curiosity : science in the world / Janny Groen,
Eefke Smit, Juurd Eijvoogel, editors.

p. cm.

Includes index.

ISBN 0-444-88861-6

1. Science--Social aspects. 2. Research--Social aspects.

I. Groen, Janny. II. Smit, Eefke. III. Eijvoogel, Juurd.

Q175.55.D57 1990

306.4'5--dc20

90-13974

CIP

ISBN: 0 444 88861 6

© ELSEVIER SCIENCE PUBLISHERS B.V., 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher, Elsevier Science Publishers B.V., P.O. Box 211, 1000 AE Amsterdam, The Netherlands.

Special regulations for readers in the U.S.A. - This publication has been registered with the Copyright Clearance Center Inc. (CCC), Salem, Massachusetts. Information can be obtained from the CCC about conditions under which photocopies of parts of this publication may be made in the U.S.A. All other copyright questions, including photocopying outside of the U.S.A., should be referred to the Publisher.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein.

PRINTED IN THE NETHERLANDS

Contents

Introduction	1
David Halberstam, the observer The haves and have nots	9
Seun Ogunseitan, the information gatherer An African dream	19
Federico Mayor Zaragoza, the diplomat Coordination without funds	29
Alexander King, the activist The human lemmings	39
Erich Bloch, the science policy-maker The government catalysis	49
Harry Beckers, the industrial scientist What price research?	61
Etienne Davignon, the industrialist Links without chains	71
Robert Solow, the economist International openness	79
Hisao Yamada, the scientist in Japan Breaking the mould	91
Tudor Oltean, the communication analyst East-West mergers	101
Rudolf Bernhardt, the lawyer We must not lead	109

Roger Penrose, the mathematician	
The black hole of consciousness	117
Kai Siegbahn, the physicist	
The accelerating advances	127
Shigeo Minowa, the publisher	
The communication deficit	137
John Maddox, the editor	
The public digestion	143
About the people interviewed...	149
Index	155

Introduction

In the 20th century, more than ever before, the world is being shaped by science. The scientific enterprise is not only “millions of people trying to understand how the world ticks,” to quote John Maddox, the Editor of ‘Nature’. It is much more. Science is providing today’s society with the kind of information that will change the society of the future. Scientists have become leading actors in world history.

The results of scientific research determine the way food is produced, wars are fought and procreation is regulated. Communication, health care, transport, trade, industry and countless other aspects of daily life have been drastically and permanently changed as a result of the discoveries made by that disciplined form of human curiosity that we call science.

Science is, in the words of the American author David Halberstam, ‘the engine of modern society’. “It is evident that we live in a technology-driven world and that those societies who excel at science, not just pure science but the application of it, are going to be the successful ones.” Knowledge, primarily scientific knowledge, provides the new raw material for prosperity. It is a major instrument, to some even a weapon, in the rivalry between social classes, countries and trading blocks.

For some time now, scientists have no longer been able to shut themselves away in their proverbial ivory towers. Even in the socialized universities, where they could still shelter from the harsh world, in the last decades it has become clear that there is no way in which they can shirk their prominent role in the society of the late twentieth and early twenty-first century.

Science has a central place in today’s world. And if a rare scientist does not yet realize this, politicians, activists, journalists, economists and lawyers are ready to remind him of it. Science is in the world, that is to say, science can be found at school, on Wall Street, in the home, in the factory, on the battlefield and in the news.