

英 文 版

教育部高等学校心理学教学指导委员会推荐用书

# 心理测验：历史、原理及应用



## Psychological Testing

History, Principles, and Applications

第 5 版

【美】罗伯特·格雷戈里 ( Robert J. Gregory ) 著

人民邮电出版社  
POSTS & TELECOM PRESS

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第五版

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人民邮电出版社  
北 京

## 图书在版编目(CIP)数据

心理测验:历史、原理及应用(第5版)/(美)格雷戈里(Gregory, R. J.) 著.

- 北京:人民邮电出版社,2008.3

ISBN 978-7-115-17522-9

I. 心… II. 格… III. 心理测验—英文 IV. B841.7

中国版本图书馆 CIP 数据核字(2008)第 008787 号

Robert J. Gregory

**Psychological Testing: History, Principles, and Applications**, Fifth Edition

ISBN 0-205-46882-9

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## 心理测验:历史、原理及应用(第5版)

◆ 著 (美) 罗伯特·格雷戈里

策 划 刘 力 陆 瑜

责任编辑 陈浩莺

◆ 人民邮电出版社出版发行 北京市崇文区夕照寺街14号A座

邮编 100061 电子函件 315@ptpress.com.cn

网址 <http://www.ptpress.com.cn>

电话 (编辑部)010-84937150 (市场部)010-84937152

(教师服务中心)010-84931276

北京圣瑞伦印刷厂印刷

新华书店经销

◆ 开本: 787×1092 1/16

印张: 45.5

字数: 1000千字 2008年3月第1版 2008年3月第1次印刷

著作权合同登记号 图字: 01-2008-0253

ISBN 978-7-115-17522-9/F

定价: 88.00元

本书如有印装质量问题,请与本社联系 电话:(010)84937153

## 内 容 提 要

本书全面阐述了心理测验的历史、原理和应用，是业界公认的一部重要著作，也是一本被广泛采用的优秀教材。本书是其2007年第5版的足本影印。

本书的目标是教给学习者有关心理测验的特点、目标以及广泛的影响。书中除了阐述传统领域，还纳入了神经心理测评和老年测评、测验的误用及滥用、对学习不良的测评、特殊背景下的测验、种族智商差异、成就测验中的作弊问题等方面的内容。作者对最新的被广泛应用的一些测验进行了描述和评论，考察了测验过程的微妙差别，对测验智慧的价值问题进行了探索。并将特殊领域科学研究主题的最新成果和测验工具的最新发展与应用巧妙而有机地结合。

本书可作为我国高等院校心理学专业双语教学的教材，以及专业研究人员的参考书。同时，由于其很强的实践性、应用性，因此，它也适于政府、企事业、医疗、司法等各行各业相关专业人士作为实践指导。

# 总序

王 垒

中国心理学有一个很早的开端,却只有不长的历史。从1900年京师大学堂开设“心理学概论”课程,1917年北京大学成立中国第一个科学心理学实验室,到随后清华大学、杭州大学等一批学校成立心理学系,说起来有一个多世纪了。但由于20世纪战争与和平的较量以及文化意识形态领域里的跌宕起伏,相当多的时间被耽误了,学科发展被拖了后腿,算起来,真正用心做学问的时间不过半个世纪。

中国心理学有一个不错的开端,却有坎坷的历程。早在1908~1910、1912~1913年,蔡元培先生两度在德国游学,两度选修了冯特的“实验心理学”课程,这对他后来极力推动北京大学心理学的发展起了很大的作用。更有20世纪20~30年代,唐钺、孙国华、陈立、潘菽、曹日昌、朱智贤、周先庚等一批学者在美国哈佛、斯坦福、康奈尔、芝加哥等著名大学留学归来,投入国内心理学建设,形成了北方、南方诸多学校心理学齐发展的格局。但由于经费困难,后来的战乱,20世纪50~60年代一些对心理学的不公正对待和以后的文化大革命,中国心理学经历了“几起几落”。

改革开放以来,中国心理学迎来了大发展的春天,教学和研究迅速普及,师资队伍和学生规模始终呈高速度扩张。在1980年,国内只有北京大学、北京师范大学、华东师范大学和杭州大学4所学校设有心理学系,到20世纪90年代初中期增加到了约20余所学校,再到21世纪初这几年增加到了100多所学校,发展速度可谓惊人。

然而,高速发展也产生发展中的瓶颈。一方面,众多学校建设心理学系,开展心理学教学和研究,同时国内社会经济与文化的发展对心理学的需求越来越旺盛;另一方面,国内心理学的总体水平相对西方发达国家还比较落后,教学研究队伍并不强大,教学研究水平仍亟待提高。这种需求与供给、速度与质量的矛盾不断激化,要保证国内心理学的健康发展,必须寻求一些有效的方法和途径。

“西学东渐”、“洋为中用”是可以推荐的诸多方法之一。教育部高教司近年来大力提倡引进外版教材和开展双语教学,这无疑对我国心理学教学的发展产生巨大的推动作用。据统计,美国每年授予博士学位人数最多的学科是心理学,可见心理学在美国的重要和普及程度。心理学诞生在西方,同时心理学的高等教育在西方积累了较丰富的经验,教材在内容、形式上都比较成熟,而且快速有效地跟进国际心理学科学发展的前沿趋势,对于保

持高等教育的水平有举足轻重的作用。相比来看,我国内地一些地区心理学师资匮乏,一些自编教材低水平重复,对教、学质量均有很大负面影响,情况堪忧。

教育部高等学校心理学教学指导委员会是国家教育部设立的心理学高等教育指导、咨询机构,负责制定国家心理学高等人才培养的宏观战略和指导规范。根据教育部发展高等教育的有关精神,我们与国内外多家出版机构合作,作为一个长期的工程,有计划、分期分批地引进外版教材,以期推动我国心理学教学的快速高效发展。

麦格劳-希尔出版公司在出版心理学教材方面富有经验,此次引进的教材均是麦格劳-希尔多年再版,被实践证明为适合高等学校教学的优秀教材。特别是这些教材均经过国内著名专家学者鉴定并大力推荐,这对引进教材的质量起到了重要的把关作用。在此谨对这些专家学者表示特别的感谢和敬意!

希望这套教材对高校的心理学教学有所帮助,并祝愿我国的心理学高等教育事业蓬勃发展!

王垒

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# 序

1980年的一天，北京师范大学78级心理学专业的同学们一如既往地早早来到教二楼108教室上课。上课铃响了，同学们安静下来。和往常不同的是，同学们发现，除了飞步走上讲台的张厚粲老师外，在她身后还闪现一个人，一位穿着和气质在时下与众不同的人。她叫林安玲，出生于台湾的美籍华人，心理测量学硕士。张老师依旧地快人快语：“从今天开始，林老师将给大家讲授心理测验课程。”看着甚至比自己年龄还大的同学，林老师以中国人特有的谦逊用台湾普通话向大家问好。历史的一页就这样翻开，心理测量、心理测验的种子在中国的大地上开始生根、发芽、成长、壮大。

时光穿梭，转眼间已到2007年。11月9日上午八点半，第十一届全国心理学学术会议心理测量专题报告在河南大学的教室里如期进行。大会名誉主席张厚粲教授隆重地向各位代表介绍报告人，来自美国心理公司(Psychological Corporation)的朱建军先生，美国韦氏智力测验第三版和第四版的修订负责人。诺大的教室里挤满了参会的代表，站着的，坐着的，年轻的，年老的，还有27年前和朱先生在北师大一起学习测验的同学。《常见的常模问题与解决方法》的专题报告将听众引向充满智慧的思想交流与呼应。就像精彩的演出过后观众久久不愿离去一样，持久不断的喝彩让大会组委会不得不在下午再增加一场报告，以满足众多代表的需求。这是历史的一瞬，见证了心理测验和心理测量已经走向辉煌。

30年过去，弹指一挥间。全国心理学教学与研究单位已经由20世纪70年代末的4个发展到今天的140多个，心理学已经不仅仅是各师范院校的特色专业，它已经深入到各类大学和学院之中。全国每年招收心理学本科生的人数也已经从70年代末的不足100人发展到当今的每年近万人。心理学的研究更是从大学的实验室走向真切的生活舞台，心理测验及其技术研发已经逐渐发展成为一个产业，广泛服务与应用于航天、军队、政府、体育、企事业、学校、医疗、司法、极地事业等各行各业，对现代生活的每一个角落产生着深刻的实质性影响。

心理测验是一门实践性、应用性很强的学科。无论是临床心理学家面对一个个受心理问题困扰的来访者，还是工业与组织心理学家设计各种方案解决具体组织中的现实管理问题，心理测量工具与技术的使用都是最基础的部分。工欲善其事，必先利其器。中国的这句俗语恰如其分地道出了心理测验的实践性和应用性本质。另一方面，心理测验也是一门理论性和技术性很强的学科。无论是个体的智力测量、神经功能诊断，还是特定人员的选拔与任用等，测验题目的设定和量

表的制作都需要建立在最新的科学理论和技术基础之上。可以说，心理测验是以工具形式集中反映和体现了心理学各领域研究的最新成就，是连接理论研究和实际应用的桥梁，就像飞机、轮船、火箭、武器展现了当今最新科技一样。

本书的作者罗伯特·格雷戈里教授是一位才华横溢的学者，不仅学术研究著作甚丰，而且也是一位身体力行、具有丰富临床经验的注册心理学家，现任美国威顿学院心理学系主任。

本书的匠心独具表现在许多方面，仅在这里列举一二。

首先是知识的管理和编排。翻开目录，你就会发现它的不同寻常。心理测验的24个不同专题被作者按照内容的相近性有机地分成12个自然章，5个大的主题。纲举目张。这种编排充分应用了有关人类学习和记忆的研究成果，使大量的知识点更加易于区分、记忆、理解、整合与管理，同时也尽可能地减少了不同章节内容的可能冗余。

其次是兼顾了学科内容的丰富性和实用的前沿性。本书涵盖了心理测验的历史、原理和应用的各个方面，将特殊领域科学研究主题的最新成果和测验工具的最新发展与应用巧妙而有机地结合。如当今发展最快的神经心理学研究与测验，最有影响力的卡特尔-霍恩-卡罗尔智力理论，以及最新版的各种智力与认知能力测验等。

第三是展现了测验与测量技术发展中的智慧和魅力。这本书并不仅仅是传授心理测验及其信度和效度的教科书，更是人类应用心理测验工具和技术解决各种现实问题的深层探索。作为一种工具，心理测验和其他所有人类发明创造一样，都需要在一定的条件下使用。测验本身并无好坏之分。正像作者本人指出的那样，“准确地说，心理测验是有争议的，因为测验的后果对个体甚至整个社会可能是有害的。”测验的积极和消极后果是由测验的使用者造就的。

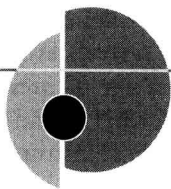
最后，本书详细列出了测验出版商、测验发展历史的里程碑、术语表等有用信息，以满足有特殊兴趣的读者和老师的需要。

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# Preface

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**P** psychological testing began as a timid enterprise in the scholarly laboratories of nineteenth-century European psychologists. From this inauspicious birth, the practice of testing proliferated throughout the industrialized world at an ever accelerating pace. As the reader will discover within the pages of this book, psychological testing now impacts virtually every corner of modern life, from education to vocation to remediation.

## ● PURPOSE OF THE BOOK

The fifth edition of this book is based on the same assumptions as earlier versions. Its ambitious purpose is to provide the reader with knowledge about the characteristics, objectives, and wide-ranging effects of the consequential enterprise, psychological testing. In pursuit of this goal, I have incorporated certain well-worn traditions but proceeded into some new directions as well. For example, in the category of customary traditions, the book embraces the usual topics of norms, standardization, reliability, validity, and test construction. Furthermore, in the standard manner, I have assembled and critiqued a diverse compendium of tests and measures in such traditional areas as intellectual, achievement, industrial-organizational, vocational, and personality testing.

## Special Features

In addition to the traditional topics previously listed, I have emphasized certain issues, themes, and concepts that are, in my opinion, essential for an in-depth understanding of psychological testing. For example, the second chapter of the book examines the history of psychological testing. The placement of this chapter underscores my view that the history

of psychological testing is of substantial relevance to present-day practices. Put simply, a mature comprehension of modern testing can be obtained only by delving into its heritage. Of course, students of psychology typically shun historical matters because these topics are often presented in a dull, dry, and pedantic manner, devoid of relevance to the present. However, I hope the skeptical reader will approach my history chapter with an open mind—I have worked hard to make it interesting and relevant.

Psychological testing represents a contract between two persons. One person—the examiner—usually occupies a position of power over the other person—the examinee. For this reason, the examiner needs to approach testing with utmost sensitivity to the needs and rights of the examinee. To emphasize this crucial point, I have devoted the first topic to the subtleties of the testing process, including such issues as establishing rapport and watching for untoward environmental influences upon test results. The second topic in the book also emphasizes the contractual nature of assessment by reviewing professional issues and ethical standards in testing.

Another topic emphasized in this book is neuropsychological assessment, a burgeoning subfield of clinical psychology that is now a well-established specialty in its own right. Neuropsychological assessment is definitely a growth area and now constitutes one of the major contemporary applications of psychological testing. I have devoted an entire chapter to this important subject. So that the reader can better appreciate the scope and purpose of neuropsychological assessment, I begin the chapter with a succinct review of neurological principles before discussing specific instruments. Tangentially, this review introduces important concepts in neuropsychological assessment such as the relationship

between localized brain dysfunction and specific behavioral symptoms. Nonetheless, readers who need to skip the section on neurological underpinnings of behavior may do so with minimal loss—the section on neuropsychological tests and procedures is comprehensible in its own right.

This is more than a book about tests and their reliabilities and validities. I also explore numerous value-laden issues bearing on the wisdom of testing. Psychological tests are controversial precisely because the consequences of testing can be harmful, certainly to individuals and perhaps to the entire social fabric as well. I have not ducked the controversies surrounding the use of psychological tests. Separate topics explore genetic and environmental contributions to intelligence, origins of race differences in IQ, test bias and extravalidity concerns, cheating on group achievement tests, courtroom testimony, and ethical issues in psychological testing.

### Note on Case Exhibits

This edition continues the use of case histories and brief vignettes that feature testing concepts and illustrate the occasionally abusive application of psychological tests. These examples are “boxed” and referred to as Case Exhibits. Most are based on my personal experience rather than scholarly undertakings. All of these case histories are real. The episodes in question really happened—I know because I have direct knowledge of the veracity of each anecdote. These points bear emphasis because the reader will likely find some of the vignettes to be utterly fantastical and almost beyond belief. Of course, to guarantee the privacy of persons and institutions, I have altered certain unessential details while maintaining the basic thrust of the original events.

### ● CHANGES FROM THE FOURTH EDITION

In this revision, my goals were to (1) add the latest findings about established tests, (2) incorporate worthwhile topics overlooked in previous editions, and (3) include coverage of innovations and ad-

vances in testing. I believe I have accomplished all three objectives. For example, several tests have been revised since the last edition went to press, including the WISC-IV, KABC-II, KBIT-2, and Bayley-III, to name just a few. For these instruments, I have described the newest editions and included the relevant research. In addition, I have added coverage of several worthwhile topics overlooked in previous editions. For example, the chapter on the history of testing now includes a summary of physiognomy and phrenology as early forms of testing, and expands the survey of Howard Knox and the advent of nonverbal tests in the early 1900s. In addition, I have included significant coverage of the Hare Psychopathy Checklist-Revised, an instrument widely used in forensic settings. Finally, some psychometric concepts such as item response theory have emerged as the clear and customary standard, and consequently I have increased the reporting on these topics.

In sum, the improvements and enhancements in the current edition include the following:

1. The ethical and social implications of testing are now discussed in the first chapter (not the last chapter as in previous editions) to emphasize their importance.
2. Physiognomy (the notion that we can judge the inner character of people from their outward appearance) and phrenology are now discussed as early forms of testing in Chapter 2, *The History of Psychological Testing*.
3. The section on Howard Knox (early inventor of nonverbal tests) has been greatly expanded in the chapter on history.
4. A brief section on B. F. Skinner's obscure but fascinating projective test, the Verbal Summator, is now included at the end of the history chapter.
5. The discussion of item response theory in Topic 3B, *Concepts of Reliability*, has been greatly expanded.
6. The psychometric concepts of sensitivity and specificity are now explained and illustrated (in the context of the Mini-Mental State Exam) in Topic 4A, *Basic Concepts of Validity*.

7. The Cattell-Horn-Carroll theory, one of the most influential and validated theories of intelligence, is presented in some depth in Topic 5A, Theories of Intelligence and Factor Analysis.
8. Updates on the KABC-II, KBIT-2, and KTEA-II have been included in Topic 5B, Individual Tests of Intelligence and Achievement.
9. The new SAT, released in 2005, is described in Topic 6A, Groups Tests of Ability and Related Concepts.
10. The discussion of coaching and its impact on group tests such as the SAT and GRE is significantly expanded in the topic on group tests of ability.
11. The new version of the Bayley, the Bayley Scales of Infant and Toddler Development-III, is reviewed in Topic 7A, Infant and Preschool Assessment.
12. In Topic 8B, Projective Techniques, specialized and innovative approaches to scoring and interpreting the Rorschach have been added alongside the tried and true standard, the Comprehensive System by Exner.
13. The Schedule for Affective Disorders and Schizophrenia (SADS) and similar instruments are now included in Topic 9B, Behavioral and Observational Assessment.
14. Assessment by systematic and direct observation, and analogue behavioral assessment, are new additions to the topic on behavioral and observational assessment.
15. Chapter 10, Neuropsychological Assessment and Screening, has been substantially restructured to incorporate a systems approach (e.g., attentional systems, memory systems, executive functions) instead of discussing brain function from the ungainly and often misleading "lobe by lobe" perspective.
16. The Wide Range Assessment of Memory and Learning-2 has been added to the list of tests discussed in the chapter on neuropsychological assessment.
17. Topic 11B, Forensic Applications of Assessment, has been expanded slightly and now includes significant coverage of the Hare Psy-

chopathy Checklist-Revised, an important and widely used forensic instrument.

18. Topic 12A, Psychological Testing and the Law, has been added to highlight the increasing importance of legal issues in testing.

Of course, minor but essential changes have been made throughout the entire book to capture the latest developments in testing. For example, I have searched the literature to include the most recent studies bearing on the validity of well-established instruments.

## ● **OUTLINE OF THE BOOK**

### **Topical Organization**

To accommodate the widest possible audience, I have incorporated an outline that partitions the gargantuan field of psychological testing—its history, principles, and applications—into 24 small, manageable, modular topics. I worked hard to organize the 24 topics into natural pairings. Thus, the reader will notice that the book is also organized as an ordered series of 12 chapters of 2 topics each. The chapter format helps identify pairs of topics that are more or less contiguous and also reduces the need for redundant preambles to each topic.

The most fundamental and indivisible unit of the book is the topic. Each topic stands on its own. In each topic, the reader encounters a manageable number of concepts and reviews a modest number of tests. To the student, the advantage of topical organization is that the individual topics are small enough to read at a single sitting. To the instructor, the advantage of topical organization is that subjects deemed of lesser importance can be easily excised from the reading list. Naturally, I would prefer that every student read every topic, but I am a realist too. Often, a foreshortened textbook is necessary for practical reasons such as the length of the school term. In those instances, the instructor will find it easy to fashion a subset of topics to meet the curricular needs of almost any course in psychological testing.

The 12 chapters break down into five broad areas, as follows:

**Nature, History, and Consequences of Testing**

**Chapter 1: Applications and Consequences of Psychological Testing**

Topic 1A: The Nature and Uses of Psychological Testing

Topic 1B: Ethical and Social Implications of Testing

**Chapter 2: The History of Psychological Testing**

Topic 2A: The Origins of Psychological Testing

Topic 2B: Early Testing in the United States

**Foundations of Testing**

**Chapter 3: Norms and Reliability**

Topic 3A: Norms and Test Standardization

Topic 3B: Concepts of Reliability

**Chapter 4: Validity and Test Development**

Topic 4A: Basic Concepts of Validity

Topic 4B: Test Construction

**Ability Testing and Controversies**

**Chapter 5: Theories and Individual Tests of Intelligence and Achievement**

Topic 5A: Theories of Intelligence and Factor Analysis

Topic 5B: Individual Tests of Intelligence and Achievement

**Chapter 6: Group Tests and Controversies in Ability Testing**

Topic 6A: Group Tests of Ability and Related Concepts

Topic 6B: Test Bias and Other Controversies

**Chapter 7: Testing Special Populations**

Topic 7A: Infant and Preschool Assessment

Topic 7B: Testing Persons with Disabilities

**Assessment of Personality and Related Constructs**

**Chapter 8: Origins of Personality Testing**

Topic 8A: Theories and the Measurement of Personality

Topic 8B: Projective Techniques

**Chapter 9: Structured Assessment of Personality and Other Qualities**

Topic 9A: Self-Report Inventories

Topic 9B: Behavioral and Observational Assessment

**Specialized Applications, Legal Issues, and the Future of Testing**

**Chapter 10: Neuropsychological Assessment and Screening**

Topic 10A: A Primer of Neurobiological Concepts

Topic 10B: Neuropsychological Tests, Batteries, and Screening Tools

**Chapter 11: Industrial, Occupational, and Forensic Assessment**

Topic 11A: Industrial and Organizational Assessment

Topic 11B: Forensic Applications of Assessment

**Chapter 12: Legal Issues and the Future of Testing**

Topic 12A: Psychological Testing and the Law

Topic 12B: Computerized Assessment and the Future of Testing

The book also features an extensive glossary, appendices for locating tests and publishers, and a table for converting percentile ranks to standard and standardized-score equivalents. In addition, an important feature is Appendix A, Major Landmarks in the History of Psychological Testing. To meet personal needs, readers and course instructors will pick and choose from these topics as they please.

## ● ACKNOWLEDGMENTS

I would like to express my gratitude to several persons for helping the fifth edition become a reality. The following individuals reviewed this edition and provided numerous valuable suggestions: Maria Panicali, Framingham State College; Rebecca Rogers, Augusta State University; Leonard J. Simms, State University of New York at Buffalo; and William Struthers, Wheaton College.

A number of people at Allyn and Bacon played pivotal roles along the way, providing encouragement and tactical advice in the various phases of revision. These individuals include Christine Poolos, who helped me establish the new sequencing of chapters; Deb Hanlon, who managed the many details of manuscript preparation; and, Susan Hartman, who arranged for excellent reviews that shaped the new edition. In addition, I want to thank Mary Young and Robert Howerton of Omegatype Typography, Inc., for their judicious attention to the many details of final production.

Dozens of psychologists and educators permitted me to reproduce tables, figures, and artwork from their research and scholarship. Rather than gathering these names in an obscure appendix that few readers would view, I have cited the contributors in the context of their tables and figures.

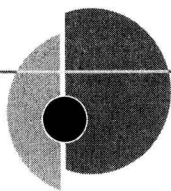
In addition, these individuals helped with earlier editions and their guidance has carried forward to the current version:

George M. Alliger, University of Albany  
Linda J. Allred, East Carolina University  
Kay Bathurst, California State University,  
Fullerton

Fred Brown, Iowa State University  
Michael L. Chase, Quincy University  
Milton J. Dehn, University of Wisconsin–  
La Crosse  
Timothy S. Hartshorne, Central Michigan  
University  
Herbert W. Helm, Jr., Andrews University  
Ted Jaeger, Westminster College  
Richard Kimball, Worcester State College  
Haig J. Kojian  
Phyllis M. Ladrigan, Nazareth College  
Terry G. Newell, California State University,  
Fresno  
Walter L. Porter, Harding University  
Linda Krug Porzelius, SUNY, Brockport  
Robert W. Read, Northeastern University  
Robert A. Reeves, Augusta State University  
James R. Sorensen, Northeastern University  
Billy Van Jones, Abilene Christian University

Thanks are due to the many publishers who granted permission for reproduction of materials. Administrators and colleagues at Wheaton College (Illinois) helped with the book by providing excellent resources and a supportive atmosphere. My graduate assistant, Angela Allen, deserves special thanks for finding relevant references quickly.

Finally, special thanks to Mary, Sara, and Anne, who continue to support my preoccupation with textbook writing. For at least a few years, I promise not to mention “the book” when my loved ones ask me how things are going.

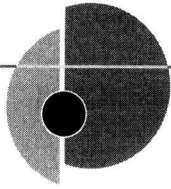


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