

B+

22nd International  
Congress of Applied  
Psychology  
Kyoto, Japan,  
22-27 July 1990

Proceedings Volume 2

GENERAL PSYCHOLOGY AND  
ENVIRONMENTAL PSYCHOLOGY

Editors:

B. Wilpert

H. Motoaki

J. Misumi



LAWRENCE ERLBAUM ASSOCIATES, PUBLISHERS  
Hove (UK)

Hillsdale (USA)



# Contents

<b>Organising Committee</b>	<b>vii</b>
<b>Foreword — Japanese Editors</b>	<b>ix</b>

## **General Psychology**

Keynote Addresses	3
Symposia	71
Poster Contributions	129

## **Psychological Assessment**

Keynote Addresses	223
Symposia	251
Poster Contributions	281

## **Environmental Psychology**

Keynote Addresses	311
Symposia	351
Poster Contributions	389

## **National Development/Cross-cultural Psychology**

Keynote Addresses	403
Symposia	429
Poster Contributions	453
Workshop and Audiovisual Presentations	457

<b>Author Index</b>	<b>459</b>
---------------------	------------



# ISSUES AND PRACTICES OF THE DIAGNOSIS OF GIFTEDNESS

Organizer & Chair: K. A. Heller,  
University of Munich, FRG

## Contributors:

K. A. Heller, University of Munich, FRG  
Issues and practices of the diagnosis of giftedness: Introduction

C. J. Mills, CTY-John Hopkins University, U.S.A.  
Issues of diagnosis and programming with  
students who are intellectually gifted and learning disabled

U. Schaarschmidt, D. Häuser, Academy of Pedagogical Sciences, GDR  
Diagnosis of giftedness in preschool and early school: Experiences and  
problems

G. Trost, Institute for Test Development and Talent Research, FRG  
Problems of determining the validity of programs for the identification  
of the gifted

Discussant: T. Hidano, University of the Air, Japan

This symposium included contributions by researchers from different cultures and political backgrounds. All were concerned with problems of identifying gifted and talented children and adolescents. Central Topics in the diagnosis of giftedness were discussed. It was argued that

the concepts of giftedness and talent should be conceptualized not only as a disposition but also as a dynamic potential.

Prior to the discussion of methodological problems of the diagnosis of giftedness, K. Heller specified some preconditions for clarification of the theoretical framework. The first one was related to the problem of conceptualization of giftedness as the focal point of diagnosis.

Generally, giftedness can be defined as the individual potential for outstanding achievements. Within the psychometrical paradigm, the concept of disposition is usually employed. In other words, giftedness is conceived as an ability construct. Corresponding operational definitions would be, for example: "A person is highly gifted if his/her overall score on a group intelligence test is above the 95th percentile" (general giftedness), or "A person is mathematically gifted if his/her score on an exacting test for mathematical performance is in the top 2%" (specific giftedness or talent). The instruments (tests) and the criteria must be verified as having adequate validity.

Psychometric data, however, can only be used to conduct product analyses or to make statements about the individual state of achievements or development. Such data may be helpful in many ways (e.g., in school counseling, in the assignment of students to special courses, and for prognoses of success), but often they do not represent a sufficient informational basis for explaining learning achievements or difficulties. This is valid for gifted individuals, too, as far as they are the reason for intervention or counseling. Thus, in practical counseling, in the scientific lab, and in field studies for the exploration of giftedness-specific learning and thinking competencies, status-related diagnostic findings must be supplemented with process-related diagnostic approaches.

Diagnoses of giftedness in concrete usage depend not only on the goals of intervention or prognosis but also on the theoretical reference basis of the object of the investigation. It is necessary to find an adequate balance between the tendency to inflationary versus unidimensional concepts of giftedness and integrative approaches concerning trait-orientated models of intelligence as opposed to cognitive models.

G. Trost's presentation entitled "Problems of determining the validity of programs for the identification of the gifted," focused on the difficulties in validating procedures for identifying the gifted, especially in the absence of control groups. In programs for identifying the gifted, the principle that educational assessment procedures should be subject to evaluation is rarely practiced. If evaluation studies are carried out at all, they usually consist of follow-up investigations on those individuals who were identified as "gifted" and who then took advantage of special enrichment or acceleration programs and the like. Thus the validity of

the measures of identification, the effects of the selection for the special programs, and the effects of the programs themselves are confounded. In this presentation, Trost discussed designs for validity studies that overcome this deficiency and the methodological problems implicit in them.

Different definitions of giftedness call for different procedures of identification and different ways of determining the validity of these procedures. Whether giftedness is operationalized by outstanding achievement or defined as potential superior performance, the deficiency pointed out above can only be overcome by including control groups in the validity studies.

Trost used the example of a large-scale longitudinal study and attempted to solve some of the methodological problems of validity studies in this context. This study has been running since 1973 on both a highly selected group of academically gifted students and a nationally representative sample of West German high school graduates using the same predictors (e.g., grades, test scores, study habits) and criteria for both groups. After 5 and 11 years, criterion data on their progress and success in higher education, job performance, and satisfaction with the subjects' academic and professional careers were assessed.

C. S. Mills dealt with issues of diagnosis and programming with students who are both intellectually gifted and learning disabled. These people are in need of special services that are often denied them because of their "double exceptionality." The coexistence of both conditions, as well as the manifestations of the interaction between the two, can be confusing to parents, teachers, and other professionals.

"Learning disabilities" is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and presumably due to central nervous system dysfunction. Although learning disabilities may occur concomitantly with other handicapping conditions or with extrinsic influences such as insufficient or inappropriate instruction, they are not the result of those conditions or influences.

A further definition provided in this presentation was an operationalization of a "gifted and learning-disabled child": A student who has an overall IQ score in the superior range *or* a superior score on one section of individually administered IQ test *or* an exceptional ability in one area *and* who exhibits a significant discrepancy (not due to emotional or motivational problems) between achievement and identified intellectual potential.

Some gifted and learning-disabled children are easily identified as gifted (high abilities, high achievements, or high IQs). However, the discrepancy between expected and actual performance increases with age. Students who are identified as learning disabled who are also gifted may be failing or struggling in school. With attention focused on their deficiency, their gifts may be ignored.

Mills listed characteristics that should be utilized by the educator in the identification of gifted and learning-disabled children. Special attention should be paid to (a) wide discrepancies in test scores from one test session to another or from one type of test to another (ability vs. achievement or verbal vs. quantitative) and to unexplained differences between standardized test scores and actual classroom performance, and (b) exceptional reasoning ability with a simultaneous inability to memorize numerical facts, or exceptional mathematical reasoning ability appearing together with inconsistent or nonexistent ability to compute.

Mills concluded that programming for the gifted learning-disabled student should be based on a qualified experts specific diagnosis of the underlying problem. The program should focus on the child's strengths and successes. Compensatory strategies should be developed where necessary, and classroom instruction may need to be modified. Above all, the programming should be creative and flexible.

In the paper provided by M. Schaarschmidt & Häuser, the topic was a research project focused on the identification of giftedness in preschool children, and on the development of these children in a longitudinal study. The contribution at the symposium referred to the former topic. On the basis of results from studies conducted to date, including the comparison of early readers and early calculating children as well as children in contrast to their age norms, the following questions were discussed: (a) Can giftedness be identified at preschool age? If so what are the indicators? (b) Are differentiations in giftedness already identifiable at preschool age? How are they expressed? (c) What should diagnostic methods for the early identification of giftedness look like? On the basis of a preliminary answer to this question, the future research procedure was specified and preliminary consequences of pedagogical relevance were suggested.

Unfortunately, the colleagues from the Hungarian Academy of Sciences and from the Chinese Academy of Sciences were not able to come to Kyoto for financial reasons. Their lectures on "Problems of Identifying High Intellectual Potential" (by E. Gefferth & M. Herskovits) and "Identifying the Gifted in China: Idea and Practice" (by Z. Zixiu) had to be cancelled.

After the presentations a very lively discussion with the audience took place. T. Hidano (the discussant) concluded the symposium by summarizing the contributions. He stressed 6 points: (a) validation, (b) concepts of giftedness, (c) the Japanese point of view on special education for gifted children, (d) cross-cultural perspectives, (e) the need for identification of the gifted in early childhood, (f) diagnosis: how to use it? All participants agreed that the exchange of information and experiences concerning diagnosis of giftedness was very useful and stressed the necessity of more cross-cultural studies in this field.