**DYSLEXIA:
FROM THEORY TO INTERVENTION**

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DYSLEXIA: FROM THEORY TO INTERVENTION

by

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PREFACE

By the end of the 1980's dyslexia research had come of age in many countries, perhaps most particularly in the Nordic countries. Part of the impetus for the research was a growing need on the part of special teachers, school psychologists and others for solid, verified knowledge about reading and writing problems. In the decades leading up to the 1980's, it had become increasingly clear that individuals who couldn't efficiently deal with written language had an enormous handicap, because the demands society and the work market made on literacy had increased so greatly. The number of young people who continued in school past the obligatory years also increased dramatically, and this made the problem of dyslexia especially obvious. Our first book together on dyslexia, which was published in Norwegian in 1991, came to fill an important role. It was soon translated into Swedish and Danish, and it was used as a textbook at a great many colleges and universities throughout the Nordic countries.

But science rarely stands still. Since our book was published, a veritable tidalwave of new studies have been published in a growing number of journals or presented at international conferences. Our knowledge of dyslexia has expanded in breadth and depth the last ten years. The cross-disciplinary and multidisciplinary nature of reading research has become ever clearer. Neurobiology has made great advances in imaging techniques, allowing us to peer into the brains of living, thinking people. Molecular genetics is well on its way to demonstrating how a propensity for dyslexia is inherited. The fields of psychology and linguistics have increased our understanding of what language is and how children acquire and develop language skills, topics of direct relevance to the study of dyslexia. Better methods for diagnosing and remediating the condition have also been developed. In the field of education we see several new and promising approaches entailing early intervention and prevention in the pre-school years. Personal computers, perhaps the icon of the 1990's, are being increasingly often used for training reading and writing skills, and also to help compensate for the lack of those skills.

Because of a great many inquiries from scholars in many countries, we were persuaded to publish an English-language version of our book from 1997. The present book is, we hope, not merely a *translation* of our book, but a fairly thorough reworking of it with an eye to communicating with the international community of scholars. Dyslexia is not confined to any one language group. Any society with an alphabetical language (and that includes of course all the societies in Europe) will be marked by the condition. The problems dyslexic children in Finland, Greece, or the U.S. have are fundamentally the same, even though there may be some variation in how they are expressed, due to variation in the regularity of spelling in the

languages in question. But fundamentally the problems and the condition are the same. Therefore, good research conducted in, say, Denmark, is immediately relevant to conditions in the U.S. or Great Britain. But, sadly, much good Scandinavian research has not been readily available to scholars who are unfamiliar with these languages.

Not only has our knowledge of dyslexia gained in breadth and depth the last ten years or so; it has to a certain measure also acquired an additional focus. Sociologists and others have contributed studies of the societal conditions that create and maintain the handicap, and the social constructions which constitute a concept like dyslexia. New perspectives on knowledge, teachers, and pupils have come to the fore, and at the same time we find a growing interest in qualitative methods in the behavioural sciences. Among other things, these qualitative methods grant us a more complete view of the disorder, by allowing dyslexics to tell us about their experiences. To a certain degree we have tried to reflect these new perspectives in the present book, and we acknowledge the value a social view of dyslexia can provide, in addition to the traditional medical and individual-oriented perspective.

The rapid pace of scientific advancement, and the pace of social change in general, provide ample reason for a new book about an old problem. Of course, while we have tried to provide a fairly complete picture of the status of our knowledge and theories today, we know full well that it is impossible to present in a single volume more than a selection of facts and theories. We have tried to eschew the trendy theories that come and go and the undocumented factoids that play well in the media, and we have tried instead to focus on research results that would seem to have a long shelf-life and that have been verified in many different studies.

Research in the last decade has provided more and more support for the hypothesis that (1) dyslexia is first and foremost a problem in decoding written words, or a problem in quickly and accurately identifying written words, and (2) that this problem is rooted in a deficit in the pupil's phonological system (his/her ability to deal with language-sounds). Because this view has been confirmed in a great many studies, it forms the backbone of the present book. But we are nonetheless open for other explanations of reading problems, such as general problems in automaticity and problems in recognizing visual patterns. Both of these alternative explanations are treated in this book. But the theoretical model we have based much of our work on grants special status to the reader's phonological system. (This model, incidentally, is virtually the same as the model we first presented in our book in 1991.)

There is nothing more practical than a good theory, as an old saying would have it. We believe that the myriad of practical problems encountered in diagnosing and treating reading problems become easier to deal with when you have a deep, theoretical understanding of the condition and its etiology. Nevertheless, no child has ever been helped by the teacher's *theory* alone. True learning can only take place in an environment imbued with mutual respect.

Preface comes first, but is written last, thus giving us the chance to express our indebtedness to our many friends, colleagues, and students who through the years have provided us with so many constructive criticisms and shared so many insights with us. To them all: thank you. In particular we would like to thank our

secretary, Jette Marie Harbo, whose patience and editorial talent we have profited greatly from. We are also greatly indebted to our translators, Michael Evans (chapters 1-4) and Susan Schanche (chapters 5-8). Michael Evans also served as our chief translator and adaptor, to whom we owe many of the English spelling and phonological examples in the early chapters.

Stavanger, Norway, January 2000

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