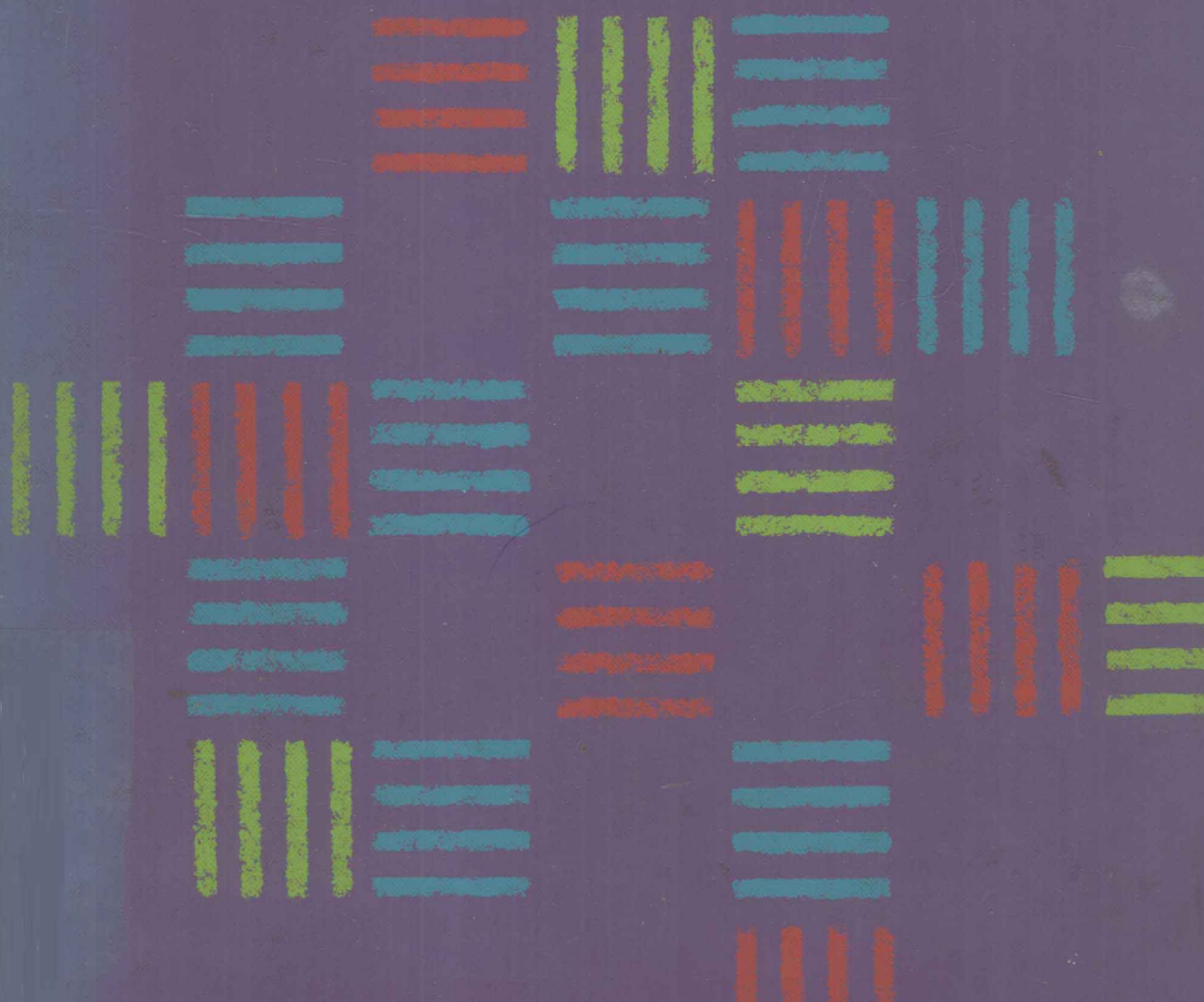


EDITED BY WILLIAM M. CRUICKSHANK

*PSYCHOLOGY OF
EXCEPTIONAL CHILDREN
AND YOUTH*

THIRD EDITION



Psychology
of
Exceptional Children
and Youth

PREFACE

Since 1920, the combined effect of several important influences has brought the exceptional child and youth to the attention of professional people in a very dramatic way. World Wars I and II, with their universal *military conscription*, subjected almost the entire male population of the United States to complete physical, psychological, and psychiatric examinations, and directed public attention to the large percentage of men who, due to physical disability, mental retardation, illiteracy, or psychiatric disorders, were rejected as unfit to assume this major responsibility of citizenship. Similarly, the results of the two wars, together with the conflicts of Korea and Vietnam, have created widespread interest in and concern about the general problems of rehabilitation.

Medicine and allied sciences have progressed markedly since the twenties. Psychological inquiries and research have added much to our understanding of the role of handicaps in the lives of children, their parents, and society in general. Medical inquiries have contributed greatly to the control of epilepsy, to an understanding of cardiac disturbances, and to the basic information regarding congenital disorders. True congenital deformities, retrolental fibroplasia, cerebral injuries, and many other problems still pose unanswered questions to the professions. Nevertheless, many advances have been observed in psychological and medical knowledge.

Since 1955, much has happened in the United States and elsewhere in the interest of exceptional children, youth, and adults. The Congress of the United States has provided grants for research and study which have

stimulated the total growth of the field. Leadership personnel have been trained in major universities and colleges through such funds, and these people are beginning to take their places in positions of responsibility throughout the country. The U.S. Department of Health, Education and Welfare, through many of its agencies, has brought new life and direction to its program in the several states through direct grants for research, service, and study. The National Institutes of Health have provided leadership for research, training, and the pursuit of knowledge in many related fields, thus bringing new insights to this area of human development. Private foundations have invested their funds generously in major studies and in direct services for all types of children and youth with disabilities. The Panel on Mental Retardation initiated by executive order of President John F. Kennedy and the continuing significant contribution of the President's Committees on the Employment of the Handicapped and on Mental Retardation express a national concern with these significant problems. Many colleges and universities have responded to this stimulation with stronger programs of teacher and leadership preparation in special education and rehabilitation. Some of these institutions of higher education, utilizing the generous funds of government and private foundations as well as their own resources, have initiated important programs of research, the results of which are turning conjecture and hypothesis into concrete fact and basic knowledge.

Although much remains to be investigated concerning the psychological growth and development of exceptional children and youth, psychological understanding has grown sufficiently exact to warrant a single publication dealing with this problem. This symposium, prepared by psychologists, is devoted solely to the psychological considerations of the influence of physical deviation upon the normative growth and development of children and young people. The term "exceptional child" means one who, by reason of a physical or intellectual deviation, is considered unique among children. Thus, chapters that deal with the psychology of the intellectually superior child, as well as with the intellectually inferior child, are included in the book. Chapters that deal with all the major groups of physically disabled children are also included.

Since the publication of the first edition of this book in 1955, a companion volume, the *Education of Exceptional Children and Youth*, has been published by Prentice-Hall, Inc. Together these two volumes provide a remarkable background for the total field of the psychology and education of exceptional children and youth.

As has been stated elsewhere, the editor of this volume and the contributing authors are of the opinion that the field of the psychology of exceptional children is too complicated and diverse to be treated adequately by a single author. No one individual can be so uniformly authoritative on all facets of this broad field as to be able to treat each with experience, personal investigation, and deep understanding. The strength of this book

and of its companion in the field of education lies in part in the fact that each chapter has been prepared by an authority in a given field.

In the revision of this work, attempts have been made to strengthen the book even more. Certain chapters have been completely rewritten. Dr. Berthold Lowenfeld has prepared what is undoubtedly the definitive chapter on the psychology of the visually impaired. The psychology of the deaf has been given a different perspective by Dr. John Wiley, and Dr. E. Paul Torrance has prepared a new chapter on the psychology of the gifted. Dr. Peter Knoblock has added a new dimension to the book in his chapter dealing with basic psychological issues regarding the emotionally disturbed child. Other new authors in this edition include Drs. Frances Connor, Herbert Rusalem, and James L. Paul, who in cooperation with the editor, have provided a new focus and new material on the orthopedically and neurologically handicapped child. Of great significance is a new aspect of the book, namely, the treatment of handicapping conditions as a social phenomenon which has been written by Drs. Nettie Bartel and Samuel L. Guskin.

Chapter I has only been revised modestly. This theoretical chapter is relatively timeless, and stands as well today as it did at the time of the first printing of the first edition of this book. It contains concepts which are basic and essential to the total field of disability. The reader will find a significant amount of material incorporated into Chapter I which was taken from the writings of Dr. Meyerson and which appeared in the first two editions of this book. This material is of such importance to the profession and is so germane to the contents of the chapter that in the opinion of the editor and author it should not be lost to the reader of this edition.

The remaining chapters have been revised significantly. Individual authors have preferred to permit their chapters to stand as in the original edition, but to integrate new research, ideas, and concepts which have developed in the intervening period. However, the editor and each author have seriously considered each chapter to determine whether or not it still provides for the student a continuing base for understanding and appreciation of the essential concepts regarding disability and exceptionality.

While almost every new insight derived from research brings to light two others which need study, the period since the publication of the first edition of this book has been marked essentially by critical investigation. Techniques and research methods, as Drs. Meyerson and Newland so well emphasize in their chapters, need yet to be refined for the investigation of many problems of human life. Suffice it to say, however, that there is a current critical attitude toward this professional field which can only result in a significant understanding in the future. The contributing authors of this edition commend their chapters to the serious student of psychology and education in the expectancy that many will be motivated to further study, research, and contribution to the understanding of exceptional children and youth.

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ONE

Somatopsychology of Physical Disability

LEE MEYERSON

At one time many people believed that continuing progress in the medical sciences would lead eventually to the prevention or cure of all the disorders we classify as physical disabilities. Today it is clear that we have made great strides in preventing some disabilities and in reducing the severity of others. Blindness as a consequence of untreated syphilis in the mother is practically nonexistent in the United States. Severe crippling following poliomyelitis, which was once common, is now rare. The deformities resulting from osteomyelitis are now prevented by the miracle of antibiotic drugs.

The other side of the picture, however, is not as hopeful. It is becoming increasingly evident that modern medicine is saving lives at the cost of permanent physical disabilities. Premature infants, children, and adults ill with acute infections or the injuries of accidents, and the enfeebled aged, all of whom once would have died, now live; but they live with gross alterations in physique and with severe impairments in physiological functioning.

There is presently little hope that illness and disability will disappear. Instead the number, and perhaps the rate, of physically disabled persons is increasing so that today there are more people with physical disabilities in the world than ever before.

Are these millions of people with physical disabilities different kinds of people from others? Are they treated in ways that are unique to those with imperfect bodies? Have they been exposed to life situations that exert a unique effect on behavior? Do we require a special psychology or unique psychological laws to understand them?

Large numbers of professional men all over the world are devoting their lives to the practice of rehabilitation. They make great efforts to assist the disabled person to return to normal society and normal

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living. Sometimes their efforts result in great success. More often success is limited by variables that are as yet imperfectly understood.

It is clearly important to study the problems that arise from the possession of an atypical physique and to attempt to find answers. A direct attack upon problems that are not well understood, however, is not always the most fruitful. Here we shall begin indirectly by considering the significance that may be assigned to physique generally, without special reference to the physical variations we call physical disability.

Somatopsychology (*soma*: body; *psyche*: mind, soul) is the study of some of the relationships that bind physique and behavior. All of us in everyday life tend to make judgments of people in terms of their physiques and also to evaluate physique in terms of behavior. We may say, "She's a redhead; I'll bet she has a temper," or "He might be a handsome fellow if he didn't scowl all the time." On a more sophisticated level we may say, "She's shy and withdrawn because she's ashamed of being so fat," or "She's fat because she's shy and withdrawn, and eating is her only pleasure."

It is not easy to disentangle the threads of cause-effect, and moreover, there always seem to be many exceptions. Some fat people are jolly, and some perfectly proportioned people are shy and withdrawn. It is a matter of common observation that the same kinds of behavior may be shown by people who have widely differing physiques, and that among individuals who have the same kind of physique can be found widely differing behavior.

It is the function of somatopsychology as a science to try to make sense out of this confusing array of data. Are there any

invariable relationships between physique and behavior so that a science of somatopsychology can be developed, or must we say that each person is a law unto himself?

There are several ways of attacking this problem, and for each way there is some confirming evidence.

1. *There is no relationship between physique and behavior.* It is evident that normal variations in specific aspects of physique such as the length of fingers, toes, lips, or tongue are not critical factors in behavior. Similarly, it is obvious from impressionistic evaluation of the whole physique that individuals who engage in similar behavior may come in all shapes and sizes. Groups of writers or lawyers or psychologists or realtors are not noted for their physical similarity.

It is equally evident, however, that girls with generous chest measurements seem to behave in ways that are different from girls who are less well endowed. Boys with well-developed muscles engage in activities that are rare for weaker youths. Athletes as a group do not look like bankers or bookkeepers. Men, as identified by physique, behave differently than women.

In addition to common observation, we must also note that there is a large and increasing research literature whose findings lead in a consistent direction. Most of the studies that have been made show a positive correlation between certain aspects of physique and certain kinds of behavior. For example, children who are physically larger in height and weight tend to show leadership, popularity, social success, and good adjustment more frequently than smaller children (Barker *et al.*, 1953). The correlations obtained are usually low, but they are positive in relating "good" physique to "good" behavior; and some of the correlations are statistically significant.

How can such data be explained? It must be emphasized that correlation is not explanation. We can be certain only that there are some relationships between physique and some aspects of behavior, but we are still faced with the problem of determining whether these relationships are meaningful. In terms of what concepts can the obtained relationships be explained?

Some of the research findings seem easy to understand. No one in our culture is likely to be surprised that most men tend to marry women who are slightly shorter than they are. This may be a matter of social expectancy. In our culture men are supposed to be taller than their wives. There is no necessary relationship, however. Many men are shorter than their wives. It is also unsurprising that behavioral skill in games is associated with physical strength. To the degree that strength is required for skill, this would appear to be a comprehensible, direct relationship.

It is more difficult, however, to understand Gowin's finding that railroad presidents were significantly taller than railroad station agents, university presidents were taller than small-college presidents, and bishops were taller than small-town preachers (Gowin, 1927). Why do the two characteristics seem to go together with greater than chance expectancy? Similarly, it is not clear why Blair (1940), in a survey of 270,000 men who owned life insurance, found an almost perfect relationship between a person's height and the amount of his insurance policy. The average amount per policy for men who were 6 feet 4 inches tall was \$6,180, and the amount consistently decreased with each decrease of 1 inch in height until the average amount per policy for men who were 5 feet tall was only \$2,979. Should we say that tall men are more able and therefore

earn more money than shorter men? That there are special social reasons why tall men need more insurance than others? Or that tallness and the increased ability to buy insurance are both functions of a superior nutritional and social environment?

2. *Physique determines behavior.* One of the oldest ideas in the history of psychology is based on the observation that some individuals are relatively taller than they are wide; some are relatively wider than they are tall; some are relatively well proportioned in both directions; and many cannot be exactly classified.

Since the time of Hippocrates, 2,500 years ago, thoughtful and observant men have believed that there is a systematic and intrinsic connection between physique, or body type, and personality. The connection has been variously conceived to be genetic or biochemical or physiological so that once the body type or body was established, predictable behavior necessarily followed.

It is conceivable that the same genes or biochemical conditions that influence the development of body type also directly influence personality and behavior, but the evidence lends little support to this idea. Correlations, obtained from normal populations, between physical type and psychological type almost invariably have been so low as to be useless for prediction (Burt, 1944; Cabot, 1938; Eysenck, 1947; Fiske, 1944; Klineberg, Asch, and Block, 1934; Paterson, 1930; Sanford *et al.*, 1943).

Sheldon and associates have developed the most promising modern constitutional typology (Sheldon, 1944; Sheldon, Hartl, and McDermott, 1949; Sheldon and Stevens, 1942; Sheldon, Stevens, and Tucker, 1940). They have described three components of structural variation, which they claim are independent of nutrition and

weight, and three basic components of temperament. In this scheme, a subject is rated on a scale from 1 to 7 for each component of physique and of temperament. Thus, the extreme endomorph (fat and flabby physique) would have a somatotype of 7-1-1; an extreme mesomorph (strong and muscular physique) would have a somatotype of 1-7-1; and an extreme ectomorph (frail and delicate physique) would have a somatotype of 1-1-7. A person who had an average degree of each component would be rated 4-4-4. Similar ratings are made for each of the three primary components of temperament; namely, viscerotonia (general relaxation, love of comfort, food, and people), somatotonia (muscular activity and bodily assertiveness), and cerebrotonia (restraint and inhibition). The creators of this classification reported correlations of the order of + .8 between endomorphic physique and viscerotonic temperament; mesomorphic physique and somatonic temperament; and ectomorphic physique and cerebrotonic temperament (Sheldon, 1944).

These findings, however, have been criticized on the ground that the criteria for the temperament ratings were often expressed in physical terms. For example, the trait of physical courage for combat was defined as a "confident dependence upon the sturdiness, skill, and muscular strength of the body." The temperamental characteristic of restraint in posture and movement was defined as meaning that the body as a whole is carried stiffly. If temperament ratings are contaminated by body characteristics from the very beginning, it is not surprising that high correlations between physique and temperament were found.

Nevertheless, this theory is a great improvement over earlier typologies, for it

recognizes that pure or extreme types of physique or temperament rarely exist and makes provision for the classification of the great mass of men whose physiques and temperaments do not fit exactly into just one of three classifications.

The theory of somatypes may eventually add to our knowledge of intrinsic relationships between physique and temperament. A somatotyping study of congenitally handicapped persons would be of great interest. At present, however, the theory offers no aid in understanding the behavior of the physically handicapped.

Physique may also determine behavior in ways that do not require assumptions about body type. Men are biological organisms, and as such they are amenable to biological forces, especially deprivations and disease. Lack of necessary endocrine products, for example, may affect both physical and psychological development, although there is little evidence that normal variation in endocrine secretion is related to personality (Haskins, 1941).

Sexual maturity and interest in the opposite sex ordinarily develop together. A person may be sexually mature, however, without being interested in the opposite sex, and a sexually immature child may be highly interested in sexual contact with adults (Bender and Blau, 1937). The presence of the appropriate physique may not necessarily require a particular kind of behavior, and the absence of appropriate physique may not prohibit behavior.

It is predictable that a totally blind child will not respond to visual stimuli nor a totally deaf child to auditory stimuli. It must be remembered, however, that these highly specific limitations on behavior may be resolved in countless ways. Children with the same physical limitation may present markedly diverse personality pictures. It is not possible to predict with

accuracy the molar psychological behavior of a child solely from knowledge of the nature and degree of his disability.

Men are also social organisms. In our culture it is predictable that children with male physiques will play with mechanical toys, whereas children with female physiques will play with dolls. Adults with male physiques will usually be the breadwinners who work outside the home while adults with female physiques will concern themselves primarily with pursuits inside the home. Again, however, it must be noted that exceptions exist. There is no necessary relationship between the physique and the behavior. In some cultures, in fact, women do the sort of work we consider appropriate for men, and men do the work we consider appropriate for women (Benedict, 1934).

3. Behavior determines physique.

White individuals who uncover their bodies to the sun develop red or brown skins. Individuals who practice the sport of weight lifting develop large biceps. The academic class of a coed at Cornell University in Ithaca, New York, where hills are frequent and steep, can be predicted with considerable accuracy from the relative development of the muscles of the calf.

In recent years great emphasis has been placed upon functional or psychosomatic disabilities. It is now well known that how a person thinks and feels may affect his physique. A soldier who runs away from the cries of his wounded buddies may develop "psychogenic" deafness. Highpowered executives who function under great pressure for long periods of time are more likely to develop peptic ulcers than individuals who lead calmer lives. Negroes in Africa and Chinese in China rarely develop the heart condition known as essential hypertension, but Negroes and Chi-

nese who live and behave like Americans are as susceptible as other Americans. Similarly, American-born Japanese grow taller and develop a different type of chest structure than their countrymen who grew up in Japan, although there is no reason to believe that the genetic structures of the two groups are different.

A similar process is not unknown among Americans. Theodore Roosevelt was frail and delicate as a youngster. The change in his physique with exercise was not paralleled by similar changes in other frail youngsters who were unable to live in the open and did not develop his interest in "roughing it."

It is evident that all human functions are psychosomatic. Nothing is ever determined simply by heredity or simply by environment.

4. Behavior and physique may be simultaneously determined by a third variable.

The untreated congenital hypothyroid child simultaneously develops cretin physique and behavioral sluggishness. Both deafness and mental deficiency in a child may be residuals of an attack of meningitis. Development of secondary sexual characteristics and becoming interested in the opposite sex may result from the injection of sex hormones. Some of these relationships have a *must* characteristic so that direct and accurate prediction from physique to behavior is possible; for example, no cases have been reported of untreated congenital hypothyroid children who did not simultaneously manifest cretin physique and behavioral sluggishness. Other relationships, however, like those in the previous classifications refer to statistical probabilities. Meningitis may or may not cause deafness, mental deficiency, or both.

5. Behavior is a function of a person interacting with his environment, $B = f(PE)$

(Lewin, 1936). It is now obvious that this is the only formulation that will adequately account for all of the evidence. Behavior is never the result of the person or the environment alone. It is not certain, however, that knowledge of this formula greatly increases our understanding or our ability to predict and control behavior in the individual case. To study all aspects of a person, all aspects of the environment, and all aspects of the interaction between the two is clearly an impossible task. We may limit the field to more manageable dimensions by concentrating not on an understanding of all behavior but rather the more modest aim of understanding what behavior occurs because a person has a particular physique. Even more specifically, we wish to find some way of ordering and understanding the behavior of individuals whose physique is "exceptional" in a negative way—that is, the behavior of individuals whom we call physically disabled.

In the past, one unfortunate effect of formulating a psychological problem in terms of physical characteristics has been to imply that a disability per se is directly responsible for behavior. It is not uncommon to read that the deaf are suspicious, the blind are withdrawn, and the crippled are maladjusted. It is known, however, that some of our deaf, blind, and crippled children are very well-adjusted individuals whose mental health is superior to that achieved by the average physically normal child. For such cases the tendency has been to fall back on the bromide that "it all depends upon the person." Since all degrees and kinds of adjustment may be found in the physically disabled, it has been claimed that adjustment depends upon the individual. It is the individual child who with "help" must "accept" or "compensate" or "make up for" so that he

may "act as normal as possible" and "be treated as normal," "in spite of" his disability. These formulations place an impossible task and needless strains upon disabled children. As we shall see, except for certain specific behavioral limitations that are directly tied to physique, placing the source of behavior either in the disability itself or in the person is neither helpful nor true.

UNDERSTANDING THE BEHAVIOR OF THE PHYSICALLY DISABLED: THE CULTURAL RELATIVITY OF DISABILITY

The history of science shows that progress in understanding phenomena has often been impeded by the acceptance of "obvious" assumptions that are not true. It may be of value, therefore, to examine certain assumptions in somatopsychology that appear to be self-evident. For example, what is a physical disability? What is a physical handicap? For many years, the two terms were frequently used interchangeably, for it seemed clear that if a person had a disability, he was handicapped for that ability and the handicap would spread to other behavior also. Undoubtedly there is some truth in this view. A crippled child is limited not only in physical ability. He *may* also be limited in the kinds of play experiences that are open to him. His parents, other adults, and children *may* treat him differently than if he were not crippled, and he himself *may* come to feel that he is not only different, but also a less worthy person than others. It will be observed that different verbs have been used in this description. The child is physically limited, but the effects of the limitation are restricted to a conditional *may*. Handicaps may or may not

follow from a disability. In recent years it has become common to make this sort of distinction between the two terms. A disability is seen as an impairment having an objective or medical aspect (Hamilton, 1950), whereas a handicap is seen as an impairment in a particular kind of social and psychological behavior. Although behavioral data may be equally as objective as physique, this is a useful distinction. It makes explicit the common observation that children with identical physical impairments may behave in radically different ways and children who behave in essentially similar ways may have widely differing physiques. It is not certain, however, that such a distinction is of maximum utility in understanding the behavior of the people we call disabled. It may be of greater value to postulate that neither disability nor handicap is objective in the sense of being simply descriptive. Both are *judgments* that tend to conceal the implicit values upon which they are based. In strictly objective terms it can be said only that variations in physique exist. Which variations will be considered disabilities, impairments, or handicaps is strictly relative to the expectations of the culture in which the person lives, the tasks that are required of him, and the meaning the person himself and others may assign to the variation.

Variations in Physique Leading to Limitation in Ability

Consider a female adolescent whose feet from heel to toe measure just four inches and appear to be deformed. On observation it is noted that the girl walks mostly on her toes with a shuffling movement, that she cannot walk with the free stride of the typical American girl, and that she cannot run. Does this person have a disability? If she were an American girl

living in the United States, obviously it would be difficult or impossible for her to engage in many of the activities that we consider appropriate and desirable for teen-age girls. Suppose, however, that this adolescent lived in China a hundred years ago when it was customary to bind the feet of females. In terms of the culture in which she lived, was she disabled? Who should be the judge? There is no question about the variation in physique. The feet of this adolescent and the feet of an American contemporary would differ. An American might say, "She's crippled. Why, she could never play softball like a real American girl." A Chinese might reply, "Barbarians! It is not appropriate for a woman to play softball. This girl has delightfully small feet that her husband will cherish, and she walks with the light and mincing step that is appropriate for a woman. Your American girls with their big gross feet walk like men. We would not allow it in China."

Obviously, it cannot be said that the Chinese girl in the Chinese culture of that time had a disability; on the contrary, the variation in the structure of her foot gave her a positive ability—the ability to walk in the way a woman "ought" to walk. An American girl in China would lack this ability. She would be "different." It would be seen by all that her feet were large and repulsive. She would be handicapped in behaving like a woman, and if social disapproval were great enough, she might very well develop the maladjusted behavior we commonly refer to as psychological handicap.

Another example from Chinese culture is instructive. It is said that when a powerful man approached the peak of his power, he closed his hands into fists and allowed his fingernails to grow through the palms to the other side. Physically, such a person

was in a position similar to that of a bilateral hand amputee, but we cannot say that he was handicapped or disabled. He was in a highly desirable and envied position. He had the ability to live without caring for himself or lowering himself to any kind of labor. In effect such a person was saying to the world, "You see how wealthy and powerful I am? See how fearless I am of the future? See what a wonderful and privileged life I lead? There is nothing I have to do for myself. In all things I have servants at my beck and call."

In our culture, where we value purposeful activity, such a "deformity" would be a horrible disability. Among the elite of China, who value the contemplative life, it was not horrible. It was the height of social distinction. No doubt such behavior sounds very queer and abnormal to us but only because we are accustomed to different forms of social honor. The Chinese might very well point to the "deformities" we imposed upon physique when the whalebone-corseted wasp waist and the hourglass figure were considered appropriate for women. The fainting spells and many of the varied "female troubles" common in Queen Victoria's day undoubtedly were traceable to these imposed variations in physique. Similarly, binding of the breasts, required for the boyish figure of the 1920 flapper, which led to the breakdown of breast tissue and disturbances in lactating ability, probably was not unrelated to the increasing popularity of infant bottle-feeding during the same period. The Chinese might also point to the frequency with which our men, in their unceasing struggle for wealth, success, and power, drive themselves into physical disability and early death from heart disease. Our "jokes" about one-ulcer or two-ulcer executives in the advertising

business, as indicators of productivity and merit, would not seem funny to the Chinese.

Other examples of the cultural relativity of disability are easy to find. In our culture, women who have epileptic seizures are considered to have a disability. Among the Shasta Indians of California, however, similar seizures are a rare and valued ability which lead a person to positions of importance, power, and honor. The Ubangi, whom many of us have seen in the circus side show, place wooden plugs in their lips to stretch them, so that at adulthood the lips extend five or six inches in front of the face. It is obvious that functions such as eating, speaking, and (for them) the uncommon emotional expression we call kissing must be affected.

Are these people "normal"? Are they "disabled"? One must remember that the Ubangi do not kiss; their lips are not an impediment to their own speech or to their nutrition. They may be considered to have a disability only if kissing were as valued in Africa as it is in the United States, only if they were required to speak English, and only if it were necessary for them to eat American foods. Obviously, however, an American among the Ubangi would have a disability by reason of his shallow lips.

Physical variation among the people of the earth seems to be the rule rather than the exception. There are people who "complete" the body by elongating the neck or molding the skull, by knocking out front teeth, blackening them, or filing them to points. Among some primitive people, it is customary to stretch the labia of the female genitals until they reach the knees. Other groups insert objects into the prepuce of the male genitals. All are examples of variation in physique that, in

our culture, would lead us to the judgment of "disability," although they do not do so in the cultures in which they are found.

In addition to imposed variations in physique, it is easy to see that normal variations in height or in musculature may also lead directly to limitations in ability and indirectly to a judgment of "disability." The Pigmy lacks the ability to function efficiently in a society built for tall people. The normal white man is relatively lacking in a similar way if he is required to hunt animals by crawling through low grass without being seen. The clothes model of our culture, the highly valued, frail female with the pipestem shape, would be devalued and handicapped in Okinawa where it is customary for women to be able to row a boat, hoe a plot of ground, and haul in large fishing nets. Where big husky women are required and valued, our beautiful model, by reason of her physique, would lack important physical abilities.

In other words, it cannot be said that a person has a disability without specifying the situation in which he is expected to behave. Disability is not an objective *thing in a person*, but a social value judgment. A society makes a disability by creating a culture in which certain tools are required for behavior. Variations in physique by themselves have little psychological meaning outside of the frame of reference in which they are evaluated.

These examples may seem somewhat unreal analogies since there is little communication between primitive cultures and our own and we are convinced of our own superiority. Nevertheless, they may help to clarify and make explicit the relativity character of normal physique and the judgmental character of the term "disability." Moreover, it can be shown that such

analogies are not simply speculations but are similar to culture contacts that have occurred on a large scale. For example, in comparison with the American Indian, who was able to hear the faintest sound of animals in the wilderness and to see the buffalo herds when they were no more than a tiny speck on the plains, the average American pioneer was half deaf and half blind. It is probable that much of the Indians' superiority was a function of training, but it is possible also that they had real physiological superiorities in auditory and visual capacities. It is certain that some early pioneers who did not have or did not differentiate the important abilities of hearing and seeing at a distance sometimes paid for their disabilities with their lives.

The frequency with which intercultural comparisons have been made does not mean that the effects of culture on the judgment of disability can be found only by comparing primitive and civilized groups. Intracultural comparisons can be made also. Consider the German male who received a sabre cut on the face in a duel. Such wounds sometimes resulted in muscular and neurological injuries which, like the lips of the Ubangi, affected the person's ability to eat, speak, and kiss. In the United States such an injury might lead to prompt and vigorous application of rehabilitative measures to restore or improve the affected functions. There is no evidence, however, that such "marks of honor" were perceived in pre-World War I Germany as disabilities or as defects that required remedial treatment. They were visible proof of the positive abilities "to be brave" and "to defend one's honor."

Similarly, it is instructive to consider physical abilities (such as acuity for sounds) which have little practical impor-