

THE CONCEPT OF COMPENSATION AND
OVER-COMPENSATION IN ALFRED ADLER'S AND
KURT GOLDSTEIN'S THEORIES

ALEXANDRA ADLER

New York University College of Medicine

It has become common knowledge that Alfred Adler, in 1907, pioneered in describing the process of compensation and over-compensation as a reaction to physical and mental disturbances and disease (3). Kurt Goldstein's painstaking investigations, published since 1920 by himself and his collaborators, have offered stimulating new insight into this process by their minute examination of the ways in which patients with brain lesions compensate and over-compensate for their particular defects.

These two pioneers complement each other in their work. Adler, after having described his basic observations of the various ways in which human beings may react to a physical handicap, proceeded to investigate mainly the reactions of individuals to environmental conditions which, for them, were charged with conflict and had led to overwhelming feelings of inferiority and, consequently, difficulties of adjustment to society. To some extent, Goldstein's investigations developed along similar lines. After minutely describing hitherto unknown and often revealing ways of compensation and substitution developed by the physically handicapped individual, Goldstein formulated his well-known concepts, which, in turn, led to psychological and philosophical considerations of a more general nature (5, 6, 7, 8).

It is probably not widely known how many details of the mechanisms of substitution, compensation and over-compensation were revealed through Goldstein's work with his patients. His findings are not easily understood by those who have had no previous experience with similar material. To the writer, Goldstein's investigations have proved a help without which the understanding and description of similar cases would hardly have been possible. In addition, his work on the methods of adaptation developed by the brain-injured provided further support and elaboration of Adler's basic concepts of compensation and over-compensation to physical handicaps (1, 2).

The case which Goldstein describes in greatest detail (5) pertains to a man, designated Sch., whose brain was injured during combat in World War I. As a result, the patient had lost the ability, which

normal people have, of recognizing by a simultaneous act of visual perception the whole of a figure, the Gestalt. As time went on, the patient compensated for this loss by acquiring new ways of recognition. Since he could perceive only small parts of an object at a time, he developed the capacity to add these parts together. This he achieved chiefly by guessing at random the whole from the parts. Compensatory head and eye movements provided additional help. By thorough analysis of the methods developed by the patient, Goldstein was able to explain why the patient could recognize some objects and not others. For instance, since no one can correctly guess what direction a curved line may take, the patient became totally unable to read handwriting, which, of course, consists mainly of curved lines. On the other hand, he could easily read print, since it consists chiefly of straight lines. As this patient, therefore, had to add up laboriously what a person with normal visual recognition is able to capture with one glance, he seemed to have become very slow. His new method of visual recognition took, of course, more time than normal visual recognition does. His brain lesion caused a change in almost all phases of his life. To others, however, he seemed to lead a normal life. Only students of the case realized that his reactions were geared to compensate for the basic disturbances in his visual recognition and to find ways of avoiding tasks which to him had become impossible to accomplish.

In a similar way, the patient described by the present writer (1, 2) also acquired a new pattern of life. This patient had suffered a brain injury as a result of carbon monoxide poisoning. Initially, she was totally unable to recognize objects visually. Later on she developed new ways of recognition which fundamentally were identical with those of Goldstein's famous patient. During the follow-up of this case, extending over more than 16 years, additional ways of over-compensation have manifested themselves. These are, as also happens with the neurotic, an understandable result of the patient's disability, but may nevertheless be faulty. For instance, it was brought to her attention that she often missed the vertical lines when writing certain letters, such as M and N. Like Goldstein's patient, she did not notice her mistakes since she had lost the ability to read her own handwriting; but when she was made aware of her mistakes, she paid so much attention to trying to correct them, that she finally made four vertical lines for the M and three vertical lines for the N—another example of faulty over-compensation.

The investigations of ways of adjustment to physical handicap have important theoretical and practical implications. Whereas before they were known, there often prevailed a hopeless, passive attitude toward physical handicaps, the interest to develop the potentialities of compensation is, at present, growing. It is now realized how successful the goal-directed efforts of the patient to find a new place in a changed world, can be.

It is one of Adler's particular achievements to have called attention to the relation between the patient's mental attitude and motivation, and the outcome of his compensatory efforts. For instance, he pointed out that, if discouraged and rendered hopeless, left-handed children may become awkward and inhibited in their physical as well as mental reactions. If stimulated by positive motivations, on the other hand, they may develop outstanding manual skills, as can be seen in the cases of some famous sculptors and painters (4, pp. 46-48). These findings have furnished important leads in our attempts to help children overcome physical difficulties.

Goldstein's fundamental descriptions of the compensatory methods of the brain-injured lead to an understanding of why certain patients, after injury to the brain, never regain to an appreciable degree their functions, while others, with apparently similar or even more extensive brain lesions, adjust to society to an amazing extent. He shows that the patient's progress depends primarily on his personality and, in particular, on his own desire to recover as well as on his previous activities, interests and training (6).

The above-mentioned investigations raise the question of whether the compensatory achievements are the result of conscious effort on the part of the patient himself, of his unconscious motivations, or of the conscious directions given to him by understanding people. Goldstein states, when discussing the "general laws of forming substitutes" (8), that substitution is formed without consciousness. This is undoubtedly often the case, in particular, of course, in young children. The adult patient, however, while going through a trial-and-error period, during which useless methods are discarded and helpful ones preserved, seems to combine conscious and unconscious motivations.

Goldstein's investigations of the brain-injured indicate that it is of primary importance not to interfere with the patient's attempts to develop new ways of adjustment but to encourage him to find his own means. His findings form the basis for present-day efforts to investigate and stimulate the patient's potentialities, an approach which re-

quires skill, knowledge, interest and patience, but is a fundamental requirement in our growing attempts to offer the best possible help to the individual patient.

REFERENCES

1. ADLER, ALEXANDRA. Disintegration and restoration of optic recognition in visual agnosia. *Arch. Neurol. Psychiat.*, 1944, 51, 243-259.
2. ADLER, ALEXANDRA. Course and outcome of visual agnosia. *J. nerv. ment. Dis.*, 1950, III, 41-51.
3. ADLER, ALFRED. *Study of organ inferiority and its psychological compensation*. New York: Nervous & Mental Disease Publishing Co., 1917.
4. ADLER, ALFRED. *The education of children*. New York: Greenberg, 1930.
5. GELB, A., & GOLDSTEIN, K. *Psychologische Analysen hirnpathologischer Faelle*. Leipzig: Barth, 1920.
6. GOLDSTEIN, K. Ueber die Abhaengigkeit der Bewegungen von optischen Vorgaengen. *M Schr. Psychiat. Neurol.*, 1924, 54, 141-194.
7. GOLDSTEIN, K. Ueber die Plastizitaet des Organismus auf Grund von Erfahrungen am nervenkranken Menschen. In A. Bethe *et al.* (Eds.), *Handbuch der normalen und pathologischen Physiologie*. Vol. 15. Berlin: Springer, 1931. Pp. 1132-1174.
8. GOLDSTEIN, K. *The organism*. New York: American Book Co., 1939.