Application of Individual-Psychological Concepts in Psychosomatic Medicine¹

IRVIN NEUFELD, M.D., New York

Alfred Adler's psychologic concepts and their implications may fruitfully serve as a link between the biological and social sciences. This bio-social orientation makes Individual Psychology especially useful in the theory and practice of the "new specialty" of psychosomatic medicine.

Upon close analysis, however, we have to realize that psychosomatic medicine is neither new, nor is it a specialty in the usual sense of the word. Already Plato had lamented that the trouble with his contemporary physicians was that they had mainly dealt with the somatic aspects of their patients' complaints. Its many unscientific exaggerations and abuses were also recorded, e.g., Bichat's hypothesis of the psychogenic origin of intestinal cancer (11) and Napoleon's concept of pest as a symptom of cowardice. To consider psychosomatic medicine as a "specialty"—and not as a method of approach—is a contradiction in itself because its foremost purpose is to eliminate the limiting methodological barricades among the specialties. Psychosomatic medicine claims to aim at achieving a full-view or holistic evaluation of a patient's symptoms instead of a one-sided, distorted, atomistic or elementalistic approach.

Even the term itself had been used a century ago (42). It has frequently been used as a synonym for "psychogenic" and even for "neurotic." Possibly this common misinterpretation led to the mistaken status of a "specialty" of psychosomatic medicine. By now the term "psychosomatic medicine" has outlived its usefulness. It has always been seriously criticized. This is evident from the number of suggested changes of the term, e.g., "socio-psycho-somatic approach (43)," "somato-psycho-noologia (42)," "cosmo-psycho-somatic medicine (19)," "holistic medicine (68)," "holosomatic medicine (50)," "psychophysio-

¹ Presented in abstract to the American Society of Adlerian Psychology, at its Annual Meeting in Chicago, May 8, 1954.

logic medicine (69)," "comprehensive medicine," "behavioral science," (32.33). I have referred to the method of investigation of an individual's clinical manifestations from the standpoint of his bio-social integration as the biosocial or orgholenistic approach (46). (Org-hol-en standing for "ORGanism-as-a-HOLos-in-ENvironment (37)" (Holos = whole, Greek). Despite all due aversion to new terms, we can easily recognize that the term "orgholenistic"—actually an extension of the term "holistic"—stresses an important conceptual and methodological feature of a truly holistic—in contradistinction to a pseudo-holistic—approach. To a truly holistically-oriented physician it becomes clear that an individual cannot fully be understood as a self-limited whole in and by himself, but only as a whole that at the same time is a part of a larger whole with all his past, present, and future relations. In other words, the "orgholenistic" approach deals with, as it were, a "psychosomatic space-time field (48)." The "psychosomatic space-time field" implies that the psychosomatic symptoms have to be considered in their relation to the patient's spatial environment (animate and inanimate) as well as to the longitudinal continuum of his past, present, and future.

The methodological and conceptual dichotomy between "body" and "mind" has by no means been eliminated by those who reverse the old fallacious principle, "a sound soul in a sound body." In fact they might eventually bring psychosomatic medicine into disrepute by unsound application of sound principles.

Adler's teachings of the psycho-physical oneness not only preclude the fallacious dichotomistic "body and mind" approach but also eliminate the misleading concept of a mechanistically conceived causal relation between them. We have to realize that the actual psychosomatic problem is that of a multi-facetted evaluation of all the various interdependent manifestations of psycho-physical oneness. The Individual-Psychological approach to some of the psychosomatic problems, e.g., in menopause (56, 64), accident-proneness (1), tuberculosis (52), pediatrics (49, 51), gynecology (27, 36), obstetrics (44), cardiology, (62), physical rehabilitation (23, 45), etc., have previously been dealt with by various Individual-Psychologists.

If we consider the great number of organic diseases which were tragically overlooked because of psychiatric labels (12, 15, 16, 40, 57-61, 66), and the probably equally great number of "somatic" symptoms which were overtreated with chemical, physical, and surgical methods until their psychogenic character became evident (12, 14, 17, 20, 31,

35, 38, 63), we must endeavor to find and to eliminate the inadequacies in the prevailing medical concepts leading to such consequential mistakes. (Many a patient with definite X-ray "evidence" of arthritis of his spine was found to suffer actually from psychogenic backache.) Many "neuroses" and "psychoses" were found to represent actual manifestations of various organic disease. (There are numerous reports of patients whose "neurotic" or "psychotic" symptoms were not responsive to psychotherapy but promptly disappeared after treatment of the underlying unrecognized somatic ailment.) On the other hand, we also read reports of a number of superfluous and useless surgical interventions, "iatrogenic diseases," etc., in psychosomatic patients. Undoubtedly, mistakes occur in both directions. But, the dichotomistic and pseudo-holistic approaches are more apt to lead to such mistakes than the truly holistic ("org-hol-en-istic") approach.

In this connection we have to consider a rather frequently occurring but rather seldom recognized orgholenistic problem that we might call "psychosomatic trigger phenomenon." By this term I mean an apparently unintentional but actually purposive behavior leading to some actually or potentially usable somatic pathology or to aggravation of a pre-existing somatic condition.

From a semantic viewpoint one may argue whether a rheumatic patient's "somatic" exacerbation following a cold shower taken after a family quarrel is in last instance "somatogenic" or "psychogenic." Is a refused lover who in his rage drives his car at a speed of 80 miles per hour and is severely injured in an accident a victim of an accident, or of a sort of attempted suicide? Habitual careless behavior resulting in accident-proneness, dietary indiscretions resulting in exacerbation of a gall bladder or gastro-intestinal ailment represent other examples of "psychosomatic trigger phenomena." If we view these apparently "purely somatic" symptoms as occurring in a "psychosomatic spacetime field," as explained above, it becomes evident that in certain individuals somatic conditions may function as "triggers" on which they may—unintentionally but expediently—"pull" at appropriate times. To illustrate the point in view, the case of a young girl who suffered from recurrent rather severe indigestions should briefly be recapitulated. The girl's mother, whose husband died after an appendectomy, was psychologically "sensitized" to any gastro-intestinal symptom which could possibly be interpreted as a sign of appendicitis. Being aware of this fact and possessing an inherited inferior gastro-intestinal tract, the daughter could easily provoke indigestion by eating certain foods whenever she felt it expedient to "pull the trigger" against her mother.

In a great number of cases, it would be utterly useless to approach them as "somatic" or "psychogenic" conditions. It has been stated that a doctor who labels a disease "psychogenic" wants to cover up for his own inability to find the real, organic cause of his patient's complaints (39, 55). But, it has also been stated that a physician performing extensive examinations, tests, X-rays, etc., to find organic causes of a neurotic patient's complaints and/or treating them with physical methods, becomes a pathogenic agent himself (17, 38, 65, 69). (If we apply Adlerian principles, the cause of both statements will be recognized in their purpose, namely, to propagate the superiority of their respective theories which—in best case—represent generalization of statistical probabilities.)

In psychosomatic problems, however, the primary problem is not an "either-or" proposition but the proper evaluation of "all" the aspects of the patient's complaints. We realize that it is impossible to view all aspects, but in order to come to reality as closely as possible, such a diagnostic process has to involve two sets of evaluation:

- A) 1) our evaluation of the patient's signs and symptoms which we expediently but arbitrarily classify into "somatic" or "psychic";
- 2) our evaluation of the patient's environmental circumstances (animate and inanimate); (See: "Four 'S' problems" on page 109)
- 3) our evaluation of the patient's ability and willingness to deal—and of his actual dealing—with his symptoms and with his environmental circumstances;
- B) 1) the patient's *own* evaluation of his own signs and symptoms (physical and/or mental);
- 2) the patient's own evaluation of his environmental circumstances;
- 3) the patient's *own* evaluation of his ability and/or willingness to deal—and of his actual dealing—with his symptoms and environmental circumstances.

Sometimes a rather significant third set of evaluations may play an important role in many psychosomatic constellations: the patient's evaluation of his doctor's evaluation.

As to what should be included in such a "bifocal" evaluation, there can be no set rules applicable to all doctors and to all patients. How-

ever, the data thus accumulated may be brought into correlation in a seemingly complicated but actually very simple and workable formula to estimate what we might term the patient's "Stress Quotient" (SQ) indicating the degree and area of stress in his bio-social integration (48). In any person's bio-social integration six dynamically related teleo-causalistic factors determine the overall stress under which he functions. In brief and in general terms, any person's SQ is directly proportional to his goal(s), task(s), and obstacles(s) thwarting his goal(s) and task(s). A person's SQ is indirectly proportional to his intrapersonal equipment ("Working Capital" (34)), to the available and usable environmental means, and to his own striving capacity (as it were, his "psychological armamentarium," including motivations, courage, social interest, frustration capacity, perseverence, religious and ideological concepts, etc. (46).

Such a holological approach (i.e., from the viewpoint of the logic of the whole) leads us to dealing with a patient's total bio-social integration and not only with his presenting symptom which may not be his only, or even his main problem. But, even if it were, its analysis and evaluation against the background of his integrational stress will yield therapeutically highly effective information.

Such a "psychology of use" and "psychology of evaluation" (9)—instead of a "psychology of possession"—enables the diagnostician to evaluate his patient's complaints according to the *meaning* of the apparently psychosomatic symptoms and not according to misleading mechanical criteria, such as, presence or absence of "objective signs," presence or absence of "other neurotic symptoms," "secondary gains," etc.

Individual Psychology offers practical tools for the evaluation of the meaning of a patient's symptoms. Alfred Adler used to ask his patients what they would do if they were well. He often found that what they claimed they would do was the very thing they were afraid of, or what they wanted to avoid (9). A similar technique was described by Dreikurs (24) as "The Question" which I propose—with his permission—to call the "key question." A similar but somewhat more comprehensive method was described by me as the "technique of reversed inquiry" (46). This term implies reversed interpretation of the patient's own solicited evaluation of his symptoms (e.g., if a patient with chronic, recurring unspecified backaches states that "I would buy a farm, if I were well," or "I would want to have children,"

the chances are that that man does not want or is afraid to buy that farm, and that lady actually does not want children although it is expected of her.) Frequently, somatic symptoms are used not to avoid but to achieve something. The psychodynamic significance of positive, negative, and combined purposiveness of psychosomatic symptoms has been described elsewhere. (45, 46).

In the case of a religious middle-aged woman, "severe" low-backaches were found to serve as "justification" for the use of contraceptives. In fact, she did not even seek medical help to relieve her backaches. Her "guilt" feelings about using contraceptives were fully compensated by her conviction that she should not become pregnant because of her "weak low-back." However, when her husband took a job where temptation to get involved with younger girls was imminent, her guilt feelings became very acute! Her backaches became so aggravated by performing unnecessary strenuous physical activities (cf. above "psychosomatic trigger phenomenon") that she eventually decided to see a specialist and to "cure" her back. When she learned that her minor back condition by no means contra-indicated normal pregnancy and delivery and that having a child—against her assumptions would not necessarily tie her husband to her but possibly would make things even more complicated, the "psychological superstructure" of her "somatic ailment" was changed. She was no longer interested in curing her back condition and continued to use contraceptives. While stressing the overall, statistical helpfulness of such diagnostic methods, it is worthwhile to remember that "in Individual Psychology we find that we cannot accept any laws or rules as binding. We can accept only probabilities" (6).

Another practical diagnostic technique is evaluation of the patient's relation to and dealing with his environmental problems which Adler called the "three problems of life." For this evaluation I have derived great benefit from Adler's concept of the "outside world": "... the individual adopts a certain particular approach, a certain attitude, a certain relation toward problems of the outside world (the outside world includes the experience of one's own body as well as the experience of one's psychic life)" (7). We may refer to this inclusion as to the "Four 'S' problems" (Subsistence, Society, Sex, and Self." "Self" referring to the "experience of and dealing with the problems of one's own body as well as one's psychic life"—added to the "three problems of life," namely, Subsistence, Sex, and Society).

The measuring rod for evaluation of the patient's ability and willingness to deal and of his actual dealing with his "Four 'S' problems" is what Adler termed "Social Feeling." The ratio between an individual's "social feeling" and his "self-elevation tendencies" may be referred to as one's "Psycho-social Index" (PSI). It serves a very useful and practical purpose in the holistic-diagnostic process. As we mentioned before, the Adlerian approach considers the individual not only as a whole in himself but at the same time a functioning part of a larger but just as dynamic whole, namely as an individual indivisibly related and bound to the field of his existence, i.e., to society. A human being as a zoon politicon has to be credited with an innate capacity or propensity to preserve the field of his existence, i.e., society, without which his own human existence is inconceivable. Our strivings to overcome feelings of insecurity and inadequacy or frustration are—in last instance -directed toward this end (3). As Adler stated: "The feeling of insecurity and inadequacy is traceable to a deeply rooted biological basis and is not to be thought of as something having purely a psychological basis" (8).

It is being more and more recognized that in psychosomatic diagnosis the evaluation of men's "zoon politicon" propensities—i.e., "social feeling," or of its reverse tendencies, namely, "self-elevation,"—is just as important as the recognition of "instincts" of self-preservation, of self-destruction, and the "libidinal equilibrium." (In fact, strong patriotic, religious, ideological feelings often overshadow the "purely biological" insincts.)

Besides methodological, Adler also formulated theoretical concepts applicable to psychosomatic problems (2). The importance of organ inferiorities and organ imperfections is being more and more appreciated (13, 21, 30). Inferiority of the brain and of the neuro-hormonal system may be considered as one of the more important inferiorities in psychosomatic medicine. It has been shown by electro-encephalograms that brain waves may be inherited (61). In modern pathological anatomy we find concepts of inheritance of predisposing organ-inferiorities rather than of any particular disease (25). (We also see more than suggestive evidence of segmental inferiorities and neurological stigmata; of inferiority of the connective tissue system, of the pituitary-adrenal axis, of nerve end-organs, etc.) Furthermore, it has experimentally been shown that an organ in minimal state of excitation reacts to minimal external stimuli with intensified response. The ex-

ternal stimuli may be so minimal that the stimulated organ in a perfectly normal state would not respond to them at all. This "phenomenon of facilitation" (53) was extended by Elliot as to explain seemingly improportional organic reactions not only to minimal external, but also to minimal internal, or psychic stimuli ("facilitation from above") (28). These experimental facts seem to support Adler's statement that a "tension makes itself felt at the point of least resistance." Many persons manifesting "psychosomatic" symptoms which are considered as due to "identification" with their parents probably suffer from the consequences of the same inherited organ inferiorities. However, it should again be emphasized that Individual Psychology is not a "psychology of possession." Nor is it based on mechanically and statistically applied causalistic-deterministic principles. Organ inferiority -inherited or acquired-may be one of the several mechanisms by which "somatic" symptoms of a "psychic" shock or tension may manifest themselves. In last instance, however, it is the individual's use of his equipment which mainly determines his holistic reaction whether a "shock reaction" or a tension symptom will develop into a psychoneurosis (29), or for that matter into a "physio-neurosis." Inherited organ inferiorities do not fatalistically "cause" an inferior person, just as inherited organ superiorities do not automatically assure the development of a superior person.

Persons with organ inferiorities may have to put in more personal efforts than persons with organ superiorities to achieve the same results. Persons of what Adler termed "the overcoming type" (4) will need very little or no "psycho-therapeutic" help in dealing with their psychosomatic symptoms because their psychosomatic symptoms will have a stimulatory effect toward developing a "minus situation into a plus situation." On the other hand, persons of what Adler termed the "ruling," "exploiting," and "avoiding" types (4) will have more difficulties with their symptoms because they will habitually and possibly unknowingly use their symptoms as instruments of their "ruling," "avoiding," or "exploiting" tendencies toward achieving their goals or toward avoiding their responsibilities. ("Stimulancy" and "instrumentality" functions of somatic symptoms were dealt with in previous papers.) (45, 46)

Besides organ inferiority many other factors may be involved in the development of psychogenic somatic symptoms, what Dr. Dreikurs termed "the training of symptoms" (22). Childhood and adolescent

training and experiences, diseases of significant persons, "identifications" with certain sick persons, popular medical writings, broadcasts, posters, dramatizing or "modernizing" certain diseases, and many other factors may psychologically "sensitize" an individual to certain labels ("semantogenic psychosomatic symptoms"). Some persons thus may become "hypersensitized" to even slight symptoms in certain organs, e.g., the heart, lungs, brain, stomach, spine, etc. Others become horrified by certain labels, such as cancer, tb, multiple sclerosis, arthritis, heart condition, etc. (At one time in a community, many patients with athlete's feet suddenly looked for medical attention. This rush was due to an "educational" article on cancer written by a physician for a local newspaper. He cited a case of a woman with lung cancer who came to see him because of her athlete's feet. It took a "contra-educational" article to offset the effect of the original "educational" article on athlete's feet sufferers.)

At any rate, besides organ inferiority "the psychodynamic specificity of somatic symptoms" plays a definite role in the genesis of psychosomatic symptoms (48). Theories that certain personality types develop certain diseases (e.g., ulcer personalities, arthritis personalities, fracture personalities, etc. (26) or that certain emotions cause certain diseases (10) could not be substantiated (32, 33, 41).

I have dealt at length with the diagnostic aspects of psychosomatic problems because I believe that the primary problem to be discussed here is the diagnostic problem.

As to their psychological approach, it can only be stated that all the various schools report successes and failures. Prolonged "deep" psychoanalysis has often been reported as desirable and highly successful. We have also learned that a curative, quasi-self-rectifying psychological dynamism may develop during and by the patient's talking in the psychotherapist's presence. The therapist's function thus becomes the function—so to say—of a catalyst. (We could look upon such a psycho-dynamic process as "psycho-catalysis"— in contradistinction to the process of psychoanalysis (59).

It has been stated that psychotherapy in many psychosomatic cases could be carried out by the attending physicians even without extensive psychiatric training and that the results may often be "superior to those produced by months or years of conventional psychoanalysis" (18). Individual-Psychological concepts and methods may appropriately and effectively be used in such "minor," "brief"—and as I prefer

to call it "concomitant informal"—psychotherapy. A word against a habitual semantic prejudice should here be sounded: prolonged psychotherapy is not necessarily "deep," and brief psychotherapy is not necessarily "superficial."

Our therapeutic goal is to recognize—and to help the patient to recognize and to voluntarily rectify—his mistaken methods and/or goals. In other words, our psychotherapeutic approach is directed toward the main psychologically pathogenic factors, i.e., the patient's mistaken life-style. We know that an individual's personal life-style confronted with his pertinent life-situation may bring about potentially pathogenic tensions which have often been referred to as "conflicts." For mnemotechnic purposes, I have referred to this potentially pathogenic psychodynamic process as the "PLS-conflict" or "PLS-discrepancy." PLS refers to an individual's "Personal Life Style on one hand, and to the Pertinent Life Situation on the other. Alfred Adler referred to neurotic conflicts as to a discrepancy between the available and demanded "social feeling" (15). The greater and the more irreconciliable is the discrepancy, the more irresolvable the conflict, the more difficult the psychotherapist's task, and the smaller the patient's chances of achieving "mental" health—or better: "Health"—will be.

SUMMARY

The bio-social and teleo-causalistic orientation implicit in Individual Psychology may be constructively and fruitfully applied in the theory and practice of psychosomatic medicine. Based on Alfred Adler's concept of the "psycho-physic oneness," the author proposes an "orgholenistic" approach to psychosomatic, i.e., bio-social problems. ("Org-hol-en" is the abbreviation of Korzybski's concept of "ORGanism- as-a-HOLos-(whole)-in-an-ENvironment.") Such approach views psychosomatic phenomena as processes occurring in what the author describes as a "psychosomatic space-time field." Such approach, he believes, would eliminate or at least considerably decrease the mistakes of diagnosing certain somatic symptoms as "somatogenic" because of the presence of somatic findings or as "psychogenic" because of the presence of neurotic traits. Certain diagnostic techniques are outlined, e.g., the "two-set" or "bifocal" evaluation, reversed inquiry, the four "S" problems. Certain psychosomatic problems often encountered in practice are also briefly discussed, e.g., "psychosomatic trigger phenomenon," "semantogenic psychosomatic symptoms," "psychodynamic specificity of somatic symptoms." As to the psychotherapeutic management of psychosomatic cases, the author believes that the therapeutic goal—be it by psychoanalysis or what he terms "psychokatalysis"—is the resolving of the patient's "P-L-S conflict." By this term he means that the patient's Personal Life Style is in pathogenic conflict with his Pertinent Life Situation. He also points out that Alfred Adler looked upon neurotic conflict as being a discrepancy between the required and the available "social feeling."

REFERENCES

- 1. Adler, Alexandra. The psychology of repeated accidents in industry. *Amer. J. Psychiat.*, 1941, 98: 99.
- 2. Adler, A. Study of organ inferiority and its psychical compensation. Nerv. Ment. Dis. Monogr., 1917, No. 24.
- 3. Adler, A. What life should mean to you. New York: Grosset and Dunlap, 1931.
- 4. Adler, A. Fundamental views of Individual Psychology. *Int. J. Indiv. Psychol.*, 1935, 1 (1), 5.
- 5. Adler, A. Structure of neurosis. Int. J. Indiv. Psychol., 1935, 1 (2), 3.
- 6. Adler, A. On the interpretation of dreams. Int. J. Indiv. Psychol., 1936, 2 (1), 3.
- 7. Adler, A: The neurotic's picture of the world. Int. J. Indiv. Psychol., 1936, 2 (3), 3.
- 8. Adler, A. Compulsion neurosis. Int. J. Indiv. Psychol., 1936, 2 (4), 3.
- 9. Adler, A. Social interest. A challenge to mankind. New York: Putnam's Sons, 1940.
- 10. Alexander, F. *Psychosomatic medicine*. New York: W. W. Norton & Co., 1950.
- 11. Altschule, M. D. Bodily physiology in mental and emotional disorders. New York: Grune and Stratton, 1953.
- 12. Alvarez, W. C. The neuroses. Philadelphia: Saunders, 1951.
- 13. Bauer, J. Constitution and disease. New York: Grune and Stratton, 1945.
- 14. Bennett, A. E. Faulty management of psychiatric syndromes simulating organic disease. J.A.M.A., 1946, 130, 1203.

- 15. Brenner, C., Friedman, A. P., & Merritt, H. H. Psychiatric syndromes in patients with organic brain disease. *Amer. J. Psychiat.*, 1947, 103, 733.
- 16. Brock, S. & Wiesel, B. Psychotic symptoms masking the onset in cases of brain tumor. *Med. Cl. N. Am.*, 1948, May, 759.
- 17. Bumke, O. Der Arzt als Ursache seelischer Stoerungen. (The physician as cause of psychic disturbances.) Deutsche Med. Wschr., 1925, 51, 3. cit. by Fl. Dunbar.
- 18. Cantor, A. J. Psychosomatic proctology. Amer. J. Psychother., 1952, 6, 449-466.
- 19. Chaves, T. Medicine cosmo-psycho-somatique. Paris, 1949.
- 20. Cohen, M. E., et al. Excess surgery in hysteria. J.A.M.A., 1953, 151, 977.
- 21. Dellaert, R. L'enuresie; syndrome psychiatrique. Acta Neurol. Psychiat., 1950, 50, 26-39.
- 22. Dreikurs, R. *The training of organic symptoms*. Arch. of First Inter-American Medical Congress, Rio de Janeiro, 1946.
- 23. Dreikurs, R. The socio-psychological dynamics of physical disability. *Social Issues*, Fall edition, 1948.
- 24. Dreikurs, R. The psychological interview in medicine. Amer. J. Indiv. Psychol., 1954, 10, 99-122.
- 25. Dukes, C. Adler's contribution to the study of organ inferiorities. *Indiv. Psychol. Publ. Med. Pamphlet No. 19.* London, 1938, 33-38.
- 26. Dunbar, F. Emotions and bodily changes. New York: Columbia Univer. Press, 1954.
- 27. Edwards, M. F. The psychological approach to gynecological problems. *Indiv. Psychol. Publ. Med. Pamphlet No. 12.* London, 1934, 51.
- 28. Elliot, F. A. Aspects of "fibrositis." Ann. Rheum. Dis., 1944, 4, 22.
- 29. Feichtinger, F. Psychosomatics and psychoneuroses. Amer. J. Indiv. Psychol., 1954, 10, 123-135.
- 30. Freyberg, R. H. Non-articular rheumatism. *Bull. N. Y. Acad. Med.*, 1951, 27, 245-258.
- 31. Goldwater, L. J., Bronstein, L. H., & Kresky, B. Study of one hundred and seventy five "cardiacs" without heart desease. *J.A.M.A.*, 1952, 148, 89.
- 32. Grinker, R. R. Psychosomatic research. New York: Norton, 1953.
- 33. Grinker, R. R. Psychosomatic case book. New York: Blakiston, 1954.
- 34. Herrick, J. C. A neurologist makes up his mind. Scient. Monthly, August, 1939.

- 35. Katzenelbogen, S. Iatrogenic factors in disease. *Dis. Nerv. Syst.*, 1941, 2, 342, cit. by Ziskind.
- 36. Knopf, O. Individual Psychology and gynecology. *Indiv. Psychol. Publ. Med. Pamphlet No.* 6, 1932, 22-33.
- 37. Korzybski, A. *Science and sanity*. Lakeville: Institute of General Semantics, 1948.
- 38. Krecke, A. Der Arzt als Krankheitserreger. (The physician as disease producing agent.) *Munch. Med. Wschr...*, 1933, 80, 645. cit. by Dunbar.
- 39. Law, S. Interview therapy of psychosomatic arthritis. *Rheumatism*, 1949, 5, 38.
- 40. Levin, S. Brain tumors in mental hospital patients. Amer. J. Psychiat., 1949, 105, 897.
- 41. Ludwig, A. O. Psychogenic factors in rheumatoid arthritis. *Bull. Rheum. Dis.*, 1952, 2, 33.
- 42. Margetts, E. L. The early history of the word "psychosomatic." Cand. Med. Ass., 1950, 63, 4, 402.
- 43. Menninger, W. C. Emotional factors in organic disease. *Ann. Int. Med.*, 1949, 31, 207.
- 44. Mohr, E. The role of emotions in pregnancy and delivery. Amer. J. Indiv. Psychol., 1954, 10, 169-175.
- 45. Neufeld, I. Outline of teleopsychological principles in rehabilitation of physically handicapped persons. *Indiv. Psychol. Bull.*, 1951, 9, 47-59.
- 46. Neufeld, I. Holistic medicine versus psychosomatic medicine. *Amer. J. Indiv. Psychol.*, 1954, 10, 140-168.
- 47. Neufeld, I. Evaluation of "psychic" superstructures of "somatic" symptoms. *Amer J. of Psychother*. In print.
- 48. Neufeld, I. Post-traumatic psychosomatic manifestations. Paper read at Annual Convention of Academy of Psychosomatic Medicine, 1954.
- 49. Oller, O. B. Understanding and management of psychosomatic problems in children. *Amer. J. Indiv. Psychol.*, 1954, 10, 175-181.
- 50. Owen, T. The physiology of psychotherapy. *Med. Cl. N. Am.*, 1952, March, 447.
- 51. Partridge, J. Management of early infancy. *Indiv. Psychol. Publ. Med. Pamphlet No. 18*, 1938.
- 52. Pearson, V. Individual Psychology of phthisis. *Indiv. Psychol. Med. Pamphlet No. 4*, 1932, 50-57.

- 53. Porter, E. L. & Taylor, A. N. Facilitation of flexion reflex in relation to pain after nerve injuries. *J. Neuro-physio.*, 1945, 8, 289-296.
- 54. Schur, M. Basic problems of psychosomatic medicine. In H. Herma and G. M. Kurth (Ed.) *Elements of Psychoanalysis*. New York: World Publ. Co., 1950.
- 55. Seyffarth, H. & Mainichen, K. Diseases arising from overstrain and wear and tear on the muscles of the skeletal system, often concealed behind the diagnosis of neurosis and rheumatism. In American Rheumatism Ass. *Rheumatic Diseases*. Philadelphia: Saunders, 1952.
- 56. Sicher, Lydia. Change of life. Amer. J. Psychother., 1949, 3, 3.
- 57. Simon, W. Diagnosis of brain tumor masked by mental symptoms. *Mil. Surg.*, 1952, 111, 411-420.
- 58. Smith, S. Organic syndromes presenting as involutional melancholia. *Brit. Med. J.*, 1954, July 31, 274.
- 59. Strauss, E. B. Reason and unreason in psychological medicine. Springfield, Ill.: Thomas, 1953.
- 60. Tissenbaum, M. J., Harter, H. M., & Friedman, A. P. Organic neurological syndromes diagnosed as functional disorders. *J.A.M.A.*, 1951, 147, 519.
- 61. Travell, J. & Bigelow, E. H. Role of somatic trigger areas in the patterns of hysteria. *Psychosom. Med.*, 1947, 9, 353.
- 62. Ward, G. E. S. Heart and mind. Indiv. Psychol. Publ. Med. Pamphlet No. 15, 1936, 43.
- 63. Way, O. F. The danger of suggestion in sickness. *Journal-Lancet*, 1930, 50, 550. Cit. by Dunbar.
- 64. Weber, H. Mental disorders of the postmenopausal period. *Indiv. Psychol. Publ. Med. Pamphlet No. 14*, 1936, 31.
- 65. Weiss, E. Psychogenic rheumatism. In American Rheumatism Ass. *Rheumatic Diseases*. Philadelphia: Saunders, 1952, 116-122.
- 66. Wilder, J. Somatopsychic medicine. Amer. J. Psychother., 1954, 8, 43.
- 67. Williams, D. The significance of an abnormal electroencephalogram. J. Neurol. Psychiat., 1941, 4, 257.
- 68. Young, J. C. Individual Psychology and holistic medicine. *Indiv. Psychol. Publ. Med. Pamphlet No. 11*, 1934, 31.
- 69. Ziskind, E. Psychophysiologic medicine. Lea and Febiger, 1954.