

Book Reviews

PSYCHOLOGY AND ALCHEMY (No. 12 of
Collected Works)
by C. G. Jung
Reviewed by Joseph L. Henderson, p. 522

THE SENSORY ORDER: AN INQUIRY INTO
THE FOUNDATIONS OF THEORETICAL PSY-
CHOLOGY
by F. A. Hayek
Reviewed by Francis Schiller, p. 524

Psychology and Alchemy (No. 12 of Collected Works). (Bollingen Series XX)

C. G. Jung. Translated by R. F. C. Hull

New York, Pantheon Books, 1953, 563 pp.,
\$5.00.

A cursory glance at any study of alchemy will recall to the medically trained reader the chemistry lectures of his early student days in which medieval alchemy was mentioned only to be dismissed as a fumbling attempt at discovering the principles of chemical change, but managing only to produce certain useful pieces of chemical apparatus, such as the water bath. But anyone who has gone more deeply into the study of chemistry and pharmacology has encountered the sensitive work of such chemical historians as Holmyard and Read (*Prelude to Chemistry*, London, 1936), who perceived that the true goal of alchemical experiments was spiritual enlightenment rather than making gold from the baser metals. Jung's bibliography also reveals the considerable number of modern works dealing seriously with the problem of alchemy as part of an esoteric philosophy of major importance in medieval and Renaissance Europe. (An example is *The Secret Tradition in Alchemy: Its Development and Records*, by Arthur Edward Waite.) (See also the early psychoanalytic study of a Rosicrucian parable in *Problems of Mysticism and Symbolism* by H. Silberer, tr. by Brill.) In Part III of the present volume, "Religious Ideas in Alchemy," Jung recapitulates the previous research and carries it a step further, showing it to be the experience of a psychological rather than a philosophical process. He finds that the true alchemist was one who believed that he set in motion a chemical process which could lead to the making of gold, but at the same time knew that the real goal of the work was the coming to

terms with his own inward nature or psyche. The alchemical experiment as *magnum opus* required for its accomplishment both *theoria* and *praxis*, so alchemy degenerated when the chemical experiment became the exclusive preoccupation of the charlatans known as "puffers," while its philosophical side lost itself in a maze of speculation which confused the philosophers themselves, who admittedly sought to explain "the obscure by the more obscure, the unknown by the more unknown."

It is this kind of obscurity found in later alchemical writings that would tempt any serious scientist to abandon further study and consign the whole subject to the dustbin of oblivion. But not so Jung! With amazing tenacity and insight he brings the whole ancient tradition to life, writing about it quite simply without any of that obscurity which clouds so many of the texts themselves. What then does Jung find in them useful to the modern psychologist and psychosomatically alert doctor?

Surprisingly enough, the whole subject appears to be a relevant and illuminating contribution to the studies of the mind-body parallelism, "*tam ethice quam physice* [ethical (psychological) as well as physical]." One of the most famous alchemists was also a famous doctor, who possibly discovered the principle of psychosomatic medicine. This was Paracelsus. He wrote, "One should with diligence take note of the spirit of man, of which there are really two that are inborn. . . . For this is indeed true—that man is in the image of God and therefore has a Godly Spirit in him; but on the other hand man is also an animal and as such has an animal spirit. These spirits are two antagonists, and yet the one must soften the other." He called the principle by which the interaction of spirit and matter can be understood the *lumen naturae*, or

light of nature. In a study of Paracelsus (to be published later in Vols. 13 and 16 of his collected works) Jung defends the validity of the *lumen naturae* by explaining it as a principle mediating between psyche and soma, of which the symbol is its most fitting expression. He says:

"Indeed nature is ambiguous and one should disagree neither with Paracelsus nor the alchemists if they express themselves 'in parables' in a cautious and anxiously responsible way.

"Naturally one has a desire for unambiguous clarity; but one must not forget that matters of the soul are occurrences of experience, that is, are transformations which can never be simply explained, if one does not wish to change the living moment into something static. The indefinite-definiteness of the mythology and the symbol with its changing colors expresses the soul process far better and with infinitely more clarity than the clearest concept."

In spite of Jung's careful, scholarly guidance through the intricacies of alchemical symbolism the psychiatrist without training in the study of comparative symbolism will encounter considerable difficulty in accepting the idea that what he has habitually treated as psychotic hallucinatory phenomena can in fact be cultivated as a road to mental health. Jung shows himself mindful of this difficulty by taking pains to produce abundant evidence that certain alchemists were, themselves, aware that the famous alembic was filled less with matter than with the contents of their imagination, were well able to distinguish these from psychotic delusions. Some of them even mention the danger to the adept experimenter of allowing images to flood consciousness so that he may go under (that is, become psychotic), so becoming a victim of the process rather than its "artifex." In short, they were partly aware of the psychic nature of their visions and were active in helping to form or influence them. Jung states, "The concept of *imaginatio* is perhaps the most important key to the understanding of the opus." According to one authority this "imaginative faculty of the soul . . . dwells in the life spirit of the pure blood. It rules the mind and this rules the body. The soul functions in the body but has the greater part of its function outside the body (or as we might add by way of explanation, in projection)."

This comes very close to Jung's own definition of "active imagination" as a function of the psyche which may be brought into play with most beneficial results for certain modern patients during the process of analytical psycho-

therapy because it allows unconscious contents to be made conscious in a controlled situation.

Part II of *Psychology and Alchemy*, "Individual Dream Symbolism in Relation to Alchemy" demonstrates the flow of images in a series of dreams of a modern patient in whom the principle of *imaginatio* is activated. Readers already acquainted with Jung's writings will recognize this as the series from which were drawn the dreams interpreted in two previous books, *Psychology and Religion* (Yale University Press, 1937) and *The Integration of the Personality* (Farrar and Rinehart, 1939). But in comparison with the present study these two works appear as fragmentary sketches which necessarily leave many people more confused than enlightened. Here we have the full range of Jung's comparative material brought to bear upon interpretation.

To the reader of PSYCHOSOMATIC MEDICINE, following Jung in this far-reaching implication concerning the applicability of this method in psychotherapy is less important than having made perceptible to him the remarkable correspondence between the modern dream series and the symbolism of the alchemical process, which, in turn, is an expression of the Jungian "archetypes of the unconscious." Much of Jung's earlier work of this kind failed to be convincing to many readers, where the present work will succeed because of the sheer number of examples. Even so, the dream series comprises only one third of the total number of dreams; the probability of the correct correspondence between the dream images and the alchemical symbols would be in reality, therefore, increased three-fold over the published material.

Following upon the acceptance of the scientific validity of Jung's method of research, his conclusions concerning the structure of the psyche become of special importance to the general reader as well as to the scientist. He starts with the following remarkable statement: "To the best of my experience we are dealing with important nuclear processes in the objective psyche—'Images of the goal,' as it were, which the psychic process, being 'purposive,' apparently sets up of its own accord, without any external stimulus. . . ." I would advise reading carefully the whole of Section No. IV, "The Symbols of the Self," which contains the ripe fruit of all this painstaking research. This is further amplified and brought up to date in a comparison with contemporary world problems in the Epilogue to Part III.

In this book I should advise reading in this

order: Introduction, Part I, Part III, Part II, and Part III a second time. Although it is not a long book, it requires careful reading and time to study the many illustrations from alchemical manuscripts which form an integral part of the background for making the necessary symbolic comparisons with the dream symbols. The worst way to read such a book is to try to remember all that one reads as one goes along and expect that Jung will ultimately tie it all together in bundles of clearly labelled concepts. His discursive style has its roots in the Germanic philosophical tradition. Reading this style is more like walking along a winding road through many different kinds of countryside than along the straight but limited highway, characteristic of American pragmatism or the *clarté latine* of the French Enlightenment. Jung's distinctive style is better suited to convey the complex nature of his subject than any other, and will be accordingly appreciated, by those who feel its appropriateness, as a means of clarification achieved not by the light of intellect alone (though Jung possesses one of the most formidable intellects of his time) but also and mainly by the "light of nature."

The Bollingen Foundation and Pantheon Books have presented this book in an especially readable form which enhances its value to reader and owner. It has had a clear, scholarly translation by R. F. C. Hull, who is to be congratulated along with the Editorial Committee, Herbert Read, Michael Fordham, and Gerhart Adler, for the publishing of Jung's *Collected Works*. The complete prospectus of the *Collected Works* is given in an appendix of this book and it is to be hoped that other volumes will soon be forthcoming.

JOSEPH L. HENDERSON

The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology

F. A. Hayek (with an introduction by H. Kluver)

Chicago, Ill., Univ. of Chicago Press, 1952, 209 pp., \$5.00.

When an expert such as Hayek, however reputed in the socio-economic field, writes a treatise on perception, his transgression will meet with many a raised eyebrow or blank stare. Nevertheless, his concept of the mind as an organ of classification has a background of profound and encyclopedic knowledge of psycho-

logical thought from Aristotle to Wiener, and represents a formidable contribution to a well-worn subject. He manages to reconcile associationism with gestalt psychology, and platonism with biological materialism. Again this may sound like the wishfulness of a dilettante but is in fact an ingenious and logical conclusion from the data of neurophysiology and experimental psychology.

Professor Hayek disposes of the assumption that the features of the physical world are mirrored in a one-to-one relationship by the arrangements of the nervous system. No matter how primitive, sensation is interpretation based on discrimination. It always implies a relationship between past and present, figure and background. We do not perceive qualities, but similarities and differences between them; not stimuli, but *kinds* of stimuli. These relationships are the result of growth and learning—the establishing of order out of chaos. As the nervous system develops it samples events occurring together in space or recurring in time. Similar events are thus being classified, and so are similar differences between events. Classification on the lowest level, and reclassification on the highest, accounts for the abstractions which all organisms make from their environment. This is no less true of a bee reacting to color or a rat to triangularity than of a mathematician occupied with a complex problem. Sensation, inference, and theory are all comparable results of a sorting-out procedure.

Affective qualities are not excluded from this interpretation. Placed between, and in mutual relationship to, sensation and motion, the emotions follow certain general lines in conscious and unconscious cerebral processes. In this particular respect the application of Hayek's theory to mental and psychosomatic aberrations offers great promise. A "faulty" or regressive arrangement and rearrangement of classes leads to confusion and error, prejudice and amoral behavior, and goes a long way to explain dream experience and neurosis.

The last chapter deals with the limitations which the mind encounters in explaining its own world. As the mind deals with generalities it cannot predict or explain each single event within itself, or without. No reduction of mental to physical events can therefore be complete, no classification final. It seems that mind is to remain with us as a pretty undigestible residue of its own operations.

FRANCIS SCHILLER

PSYCHOSOMATIC MEDICINE