

## Chapter 11

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# Meditation<sup>1</sup>

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### **A. Introduction: Meditation as an Entrance into Altered States of Consciousness**

Freud must be acknowledged to have been the first scholar in contemporary European culture who started to develop experimental data for the study of the unconscious. Before him, everything said and written about the unconscious in Western psychology and philosophy had been largely speculative. Freud understood that people experimented with themselves while sleeping and specifically recorded the experimental results in dreams. The important thing was to learn how to interpret them. However, the entire Freudian interpretation of the unconscious proved to be projected onto a psychological subspace of a small dimension—all the axes of this subspace were only sexually charged. Adler and Jung expanded the dimensions of the psychological subspace, and our conception of the unconscious became more meaningful.

Later, it became evident that the mystic experience of esoteric aspects of Eastern and Western religions can also be interpreted as an experiment aimed at conscious penetration of the unconscious. Rhythmic exercises with breathing, severe asceticism, and ritual coition in Tantrism are all merely techniques of a psychological experiment directed at the deliberate entrance into the unconscious. Occultism and magic, so much despised by science, may prove an interesting object of study for a psychologist, as has happened with dreams. Religious experience is again a projection of the unconscious on the psychological subspace with a very peculiar choice of coordinate axes. Some researchers managed to discover in religious traditions results of experimental studies of the unconscious systematically carried out for ages.

<sup>1</sup> Written in cooperation with J. A. Drogalina.

Another experimental device directed to the same end was the use of psychedelic drugs. From time immemorial they had been used in many religious systems to provide the easiest way of entrée into the unconscious.<sup>2</sup> In our time the synthesis of LSD gave psychiatrists an extremely powerful means for exerting a directed influence on the human psyche. Of special interest in this respect is the book by the Czech researcher Grof (1975), now working in the United States, which describes a 17-year clinical experience of applying LSD to deliberately provide the entrée into the unconscious (later in this book we discuss his results).

Now we can state with some surprise that the entrée into the unconscious seems to be able to occur in response to any extreme somatic state, including sport (Murphy and White, 1978), as discussed below.

It has also become clear that altered states of consciousness can be brought about by more or less common somatic changes, such as those listed by Ludwig (1966):

. . . disordered metabolism, sensory deprivation, intense emotional arousal, and induced relaxation. Sensory deprivation of the type encountered during prolonged voyages at sea may produce altered states of consciousness. These experiences may also occur as a manifestation of acute psychoses, hypnotic trances, anesthesia, or convulsive seizures.

Altered states of consciousness are also recorded in the recollections of reanimated people (Russell, 1974).

The experience accumulated up to the present moment—namely, similarity of descriptions of the phenomena in the unconscious state reached by various techniques, common semantic symbols of the unconscious, their profoundly archaic nature, invariance toward the entire variety of cultures—as well as other facts illuminated below allow us to claim that we are dealing with a phenomenon integral in its nature and related not to individuals but to humanity as a whole. Hence, it seems to follow that experimental procedures directed at selecting this phenomenon should also have much in common. However, we have to state that so far nobody has studied this problem in such a broad formulation.

We have entitled this chapter by the single word *meditation*. In European languages this word was derived from the Latin *meditatio*, which in English and French turned into *meditation* or *méditation* with the single meaning contemplation. Not very long ago, the meaning of this term was very distinct. It was used to denote some thoroughly developed techniques of contemplation that enabled individuals to enter the so-called *altered states of consciousness*, which we are now prone to identify with the manifestations of the unconscious without losing physical equilibrium.

<sup>2</sup> A faint echo of this in Orthodoxy is the use of a censer with aromatic smoke.

In other words, meditation techniques were elaborated so as to allow individuals to return easily and naturally into the familiar, waking state of consciousness.

Recently, intensive and many-sided studies of the unconscious showed that the altered states of consciousness which can be entered as a result of the above-mentioned natural, spontaneous somatic processes may also be identified as meditation. Here we would include as well the states arising under the effect of psychedelic (or, in other terminology, hallucinogenic) drugs. The meaning of the word *meditation* and especially of its derivative *meditative state* has been extraordinarily expanded.

Modern psychology and psychiatry, at least in the United States, are gradually getting accustomed to this term and the conceptual notions underlying it. However, up to now this trend of psychology has been nothing more than an appendix; its basic channel in the West still contains only two trends, psychoanalysis and behaviorism. William James, one of the most outstanding personalities of American psychology of the recent past (Taylor, 1978), who can be regarded as a predecessor of Transpersonal Psychology, also remained outside the basic channel.

There exists a voluminous literature devoted to meditation, mostly in English.

If we confine ourselves to the most primitive description of meditation, we can say that the goal of meditation is leaving the logically structured consciousness in order to attempt an interaction with the world not through speculation but *directly*, entering it and merging with it. According to Salinger, a poet is not a person who can write verse but one who *has an ability of direct knowledge of things*. Inspiration, not addition.

In meditation this ability is realized. So meditation can be said to be a poetical perception of the world through direct contact with the world of things.

To give a deeper definition, meditation is a means of broadening the limits of consciousness, of expanding its scale. In other words, meditation is a *journey* into the unknown depths of our consciousness. In interpreting meditation in this way, we naturally proceed from the fact that our consciousness is incomparably broader than the part that manifests itself in the waking state. We have to presume that, metaphorically speaking, human consciousness is cosmic, and we formulate the concept of a *semantic universe* of which we are a part. Such a holistic conception may look like a challenge to the paradigm of modern culture, but if we become afraid of our own idea, we shall have to reject the study of man in all his complexity. This is exactly what modern psychology prefers to do, at least in its major trends.

There exist many different meditation techniques, but at the initial stages the teaching is often brought down to concentration and holding attention on the object of meditation (deep contemplation) without re-

sisting the continuous stream of images and without attempting to keep or recognize them. Recognition in this case would be the acquired constant habit of accommodating, or adapting, the world to our mentality. And if the World resists this (i.e., the process of accommodation is not mechanical), then this accommodation is carried out by force. This is a result of ceaseless inner dialogue accompanied by constant conceptualization, by "looking" at the world from outside. "Seeing" the world, interacting with it from within proves possible only when the inner dialogue is stopped, when conceptualization, i.e., giving names, finishes. This is important not because it is so erroneous to seek explanation but because it is erroneous to ceaselessly seek adequate explanations.

As a psychosomatic criterion of the cessation of the inner dialogue, a state of weightlessness, of soaring, may serve. Here is an illustration from the book by Castañeda (1974):

My entire thought processes had stopped and I had felt I was practically suspended, floating. . . . I've told you that internal dialogue is what grounds us . . . (p. 22)

In our experiment to be described in detail in the Chapters 13–15, we stopped the inner dialogue of our participants by means of auto-training (AT), relaxation achieved by self-regulation and provoked by suggestive influence on the patient (or subject). This process results in a de-automatization of consciousness, by removing logical structuring. The cessation of the inner dialogue is a stage preceding the meditation proper.

Panke and Richards (1969) enumerate the following nine categories of meditation states: (1) undifferentiated unity of consciousness; (2) insightful knowledge or illumination about being or existence in general that is felt to be truly or ultimately real, in contrast to the feeling that the experience is a subjective delusion; (3) transcendence of space and time; (4) the feeling of spirituality and sacredness of an individual; (5) the feeling of joy and peace; (6) paradoxicality: perception of the world through the violation of the laws of Aristotelian logic; (7) inexpressability by means of the available linguistic symbols; (8) temporary duration of mystical consciousness and return to usual state of everyday consciousness (in contrast to psychosis); (9) increase of one's faith in one's own potential for creative achievement. These are, of course, only descriptions of the states of meditation in their simplest manifestations.

Literature on meditation is unusually rich and diverse. A regional-historical approach enables us to divide the practice of meditation in Buddhism, Yoga, Tibetan Buddhism, Zen, Sufism, Hesychasm, in West-European Monastic and Order Mysticism, etc. We can also speak of *transcendental meditation* in its modern application for therapeutics,

with a broadly ramified system of paid courses in the United States, of meditation for children, and of experimental meditation in clinics.<sup>3</sup>

The publications by Goleman (1972, 1977), with a bibliography of 126 titles, are devoted to the classification of meditation techniques. The author bases his work on Visuddhimagga, the Buddhist source of the fifth century B.C.:

At a first step in a systematic investigation of the myriad meditation practices, the Visuddhimagga roadmaps serve here as the skeleton of a typology allowing the sorting out of techniques in terms of their mechanics, despite the conceptual overlay that accompanies them. (p. 152)

In this literature the reader often comes across the classificational dichotomy: *concentration* versus *insight*. On this topic Goleman (1972) says:

In the realm of mind, the method is the seed of the goal: the state of consciousness one reaches is contingent upon how one chose to get there. Just as each meditation subject is consequential in the level of absorption for which it serves as vehicle, so does one's technique determine whether one will follow the path of insight or of concentration. If the mind merges in samadhi with the meditation subject, and then transcends its subject to even higher levels of jhana, then one traverses the path of concentration. On the path of insight, mind witnesses its own workings, coming to see finer segments of mind-moments and becoming increasingly detached from its workings to the point of turning away from all awareness in nirvana. The great traditions evolved from these two paths can be broadly distinguished by their goal: whether to be the "One" or the "Zero." The One is the path of samadhi, of mind merging with its object, of self dissolving into Self in union. The Zero is the path to nirvana, mind taking itself as object, where all phenomena, including mind, are finally known to be voidness, where ego-self dissolves into nothingness.

There is a third path, which combines the One and the Zero; *vipassana* as described in the Visuddhimagga is itself perhaps the best example of practices integrating concentration and insight. When concentration and insight are combined in a meditation system, the combination is not simply additive, but rather *interactive*. Concentration multiplies the effectiveness of insight; insight-borne detachment fa-

<sup>3</sup> We do not give here the bibliography on the techniques of meditation since this would have made our book too cumbersome. A solid, thoroughly annotated bibliographic source may be the guide of the bookshop Yes! in Washington, specializing in books on inner development (Popenoe, 1976). *The Journal of Transpersonal Psychology*, published in the United States twice a year since 1969, is devoted mainly to the problems connected with states of meditation. The book edited by Tart (1963) contains a bibliography consisting of 1,000 titles.

cilitates concentration. This interaction can occur only when concentration is held to the access level—in jhana there can be no insight. In systems that combine the two, the outcome is a nirvanic state and consequent ego reduction. In terms of the One and the Zero, the formula that best expresses this interactive dynamic is:  $1 \times 0 = 0$ .

**Integrated:** *The One and the Zero* Concentration and insight combine and interact, ending in nirvana;  $1 \times 0 = 0$ .

**Concentration:** *The One*  
Samadhi leads through the jhanas; mind merges with the object in Unity.

**Insight:** *The Zero*  
Mindfulness culminates in nirvana; mind watches its own workings until cessation.

To summarize all said above, we can say that meditation is a means of entering such a state of consciousness that one can merely *Be*. To be in a state of *free* existence, in its absolute spontaneity. To be without acting, without feeling the external world, without thinking. To be without feeling one's personality, one's alienation, estrangement from the integrity of the world. To be in the unconsciousness of one's consciousness.

Humanity seems to feel always the necessity to de-automatize consciousness, at least in a temporal sense, i.e., to leave the boundaries of the culture which makes its participants view the world and act according to a certain pattern, fuzzy but still actually existing. In earlier epochs, this task was the responsibility of religion, but the latter could fulfill it only as long as it did not turn into a set of rigid dogmas. Therefore, the corresponding age-long experience has been accumulated in the esoteric schools, known as mystic, cosmic, and transcendental.

This experience is difficult to study and analyze scientifically since meditation states do not generally yield to verbalization. They can only be hinted at, these hints being expressed by symbols and interpreted in terms and concepts of a certain culture, though any mystic experience is by its very nature invariant with respect to the entire manifold of its manifestations through the variety of religious systems and philosophical conceptions of a psychocosmogonic character. Hence follows a very important conclusion that verbal notions of all religious systems are, as a matter of fact, synonymous. And it is exactly for this reason that one is able, having rejected the superstition of possessing the only true belief, to perceive the whole religious experience of humanity. Ecumenism as part of *Weltanschauung* was realized long ago [. . . there cannot be Greek and Jew . . . (The Letter of Paul to the Colossians, 3:11)], but now it has come to the surface as a logical completion of human spiritual evolution.

In the following sections of this chapter we give a sketch of various meditation techniques and the resulting states of consciousness, without claiming in any way to embrace all of the information on the topic

known at present. We shall resort both to religious experience and to strictly scientific research.

## **B. On the Meditation Practice**

Meditation practice is extremely diverse. It seems possible to say that every person in the long run elaborates his or her own techniques of interaction with the unconscious, often being quite unaware of doing so.

However, many techniques have become standard and can be learned. Some of them require only a few minutes a day; others presuppose complete immersion in them. Silence and solitude are necessary conditions for some of them, whereas Zen teachers, for example, suggest meditation amid the bustle of everyday business life.

Recently, a number of guidebooks for those who wish to meditate have come out. We indicate only some of the latest editions: Emmons (1978), Allen, Gawain, and Bernoff (1978), Tarthang (1978), Chitrabhanu (1979), Rogers (1976*b*), Ram (1978). The last 170 pages of the book by Ram Dass contain information on meditation centers and places of seclusion in the United States and Canada. There has also appeared a solid, annotated bibliography (Gawain, 1978).

These guidebooks are, indeed, guides in the literal meaning of the word, since they contain detailed descriptions not only of meditation techniques, but also of what a person submerging into his own self may feel at different stages of this submergence. They lead the meditator over the spheres of his consciousness, noting positive and negative aspects of relaxation and liberation from various tensions.

A broad use of relaxation techniques (to which the abundance of literature on the subject testifies) is not accidental. Western culture, with its drive towards the mastery of the world, preaches constant tension and concentration of efforts, and this results in permanent emotional and mental stresses whose compensation is, as a rule, of a chaotic and destructive nature (for example, alcoholism).

There is an acute need for relaxation and meditation in its natural form: it not only removes stresses and thus brings positive psychosomatic results, but it also teaches us to control mind and emotions by acquainting us with our inner Ego.

John Rogers (1976*a*), whose work in this field is well known, has provided very precise instructions for the neophyte practitioner of meditation. These exercises have been widely publicized in the United States and involve isolation, relaxation, use of simple objects of concentration (as in hypnosis), intoning of traditional sounds, controlled breathing, detachment from the sensations induced by meditation.

Now it is time we spoke in somewhat greater detail about the *mantra* without making an attempt to define it in a concrete way. We would rather allude to the "experts" who practice the mantra and are familiar with its esoteric aspect. Such an expert is Lama Anagarika Govinda, a representative of the East, well acquainted with the specific features of the European consciousness. Govinda has mastered not only meditation techniques but also the faculty to "record" meditation in paints: he is a painter as well. His book devoted to creative meditation and multidimensional consciousness is illuminated by pictures whose content is meditation. Below we quote the passages (Govinda, 1976a) that reveal the meaning of the mantra and its esoteric content.

Mantras are neither magic spells whose inherent power can defy the laws of nature, nor are they formulas for psychiatric therapy or self-hypnosis. They do not possess any power of their own, but are ingredients of the human psyche. They are archetypal sound and word symbols that have their origin in the very structure of our consciousness. They are, therefore, not arbitrary creations of individual initiative, but arise from collective or general human experience, modified only by specific cultural or religious traditions.

The mantra thus connects our peripheral consciousness with our depth consciousness, which represents the totality of our past. Our past, however, reaches back to a time before the creation of structural language and fixed word forms or concepts. Thus the earliest mantric expressions or seed-syllables (*bija*) are prelingual, primordial sounds which express feelings but not concepts, emotions rather than ideas.

As in music we can discern a different vibrational character in all mantric vowels: the *O* is a rounded, all-inclusive sound, and it is certainly not by chance that in Greek and Roman scripts it has been symbolized by a circle. By superimposing the anusvara upon this sound, it is converted into the mantric seed-syllable *OM*. As such it has always been regarded—from the earliest times of Indian history until the present day—as the universal sound. In the words of Rabin-dranath Tagore, "OM is the symbolic word for the infinite, the perfect, the eternal. The sound as such is already perfect and represents the wholeness of things. All our religious contemplations begin with OM and end with OM. It is meant to fill the mind with the presentiment of eternal perfection and to free it from the world of narrow selfishness."

OM is like the opening of our arms to embrace all that lives. It is like a flower that opens its petals to the light of the sun.

OM is the ascent towards universality, HUM the descent of the state of universality into the depth of the human heart. OM and HUM are like counterpoints in a musical score.

The mantra takes on different dimensions and evokes different



mental images and visualizations, depending on whether the mantra is applied to the universal realm of the Dharmakaya, or to that of the Sambhogayaya, the realm of creative vision and spiritual enjoyment, or to that of the Nirmanakaya, the realm of action and transformation of both body and mind.

Of extreme interest is meditation *with young children*. Reports on this subject can be found in *The Journal of Transpersonal Psychology*. Meditation techniques for children were elaborated and put to use in a comparatively short period of time. The bibliography on the subject is rather vast and was partially listed earlier in this chapter.

We would like to dwell on an article by Maureen H. Murdock (1978) in which she speaks about her experience of meditation with elementary school children practiced for an academic year. She chose a simple beginning meditation from Deborah Rozman's books (Rozman, 1975, 1976) and rehearsed the pace of instructions, since the breathing rate of children is different from that of adults, and this might partly mistune the meditation.

The Murdock experiments indicate clearly that elementary school children, after simple preparation and training, may experience nearly the full range of psychic transformation through meditation. The therapeutic aspects of this experience are also evident.

The author also remarks that the children's concentration span immediately after meditation become longer and more intense as the months progressed. They increased their ability to shut out distractions. Their use of color in their art projects became more intense, free, and alive. Many drew or painted intricate mandalas. They began to treat each other with more concern, interest, and love. Very quiet children (especially boys) who never volunteered information about themselves consistently shared at quiet time their feelings and rich images.

The author emphasizes changes in interpersonal relations. The children became relaxed enough to talk about hurt feelings. Such relations become possible only when the children trust that their feelings will be heard and responded to. This trust stems, perhaps, from the fact that meditation, teaching one to interact with the inner world and promoting balance between the inner and outer life, helps to get rid of self-centered egocentrism.

Meditation also expands creative imagination. The need to train the activities associated with right hemisphere of the brain was emphasized at a conference in Los Angeles on 30 April 1977 entitled "Educating Both Halves of the Brain." According to one participant, meditation is one very strong answer to the question asked at the conference, "When do we teach love?"

The last thing we would like to say in connection with Murdoch's arti-

cle is as follows. The author reports the parents' response to meditation: some of them were present at quiet time and even participated in it. Some of the parents were led by their kindergarten children in meditation at home; the parents were very pleased and felt that it had added a new dimension to their family life.

Murphy and White (1978) found that the state of meditation can also be achieved in peak moments during competition. It has become clear that what we are dealing with here are not somatic changes but psychological ones. In competitions time is compressed immensely, and so personal time is changed. The sportsman is entirely in the present. He feels only the "here and now"; the past and the present disappear as well as awareness of the external world. Everything is concentrated on a single action, and there is nothing outside it. At these moments the sportsman can enter the altered states of consciousness typical of deep meditation. They include the out-of-body experience, the feeling of immortality, ecstasy, time stopping, extrasensory perception, awareness of the "other" — "a sense of divine presence, a source of strength outside the self." All this results in the release of hidden energies.

These unexpectedly discovered common features in sports and ancient religious practice pose the question of training athletes in a new mode. It becomes evident that training should be not only somatic but also psychological. Meditation in its usual form naturally comes to the fore. This is the simplest and most accessible method of psychological self-education.

The above paragraphs are a brief summary of the book by Murphy and White (1978). It is based on a bibliography including 538 titles, most of which have been published during the past two decades.

Now we would like to move to a scientific study by Kornfield (1979) aimed at deep investigation of meditation, which the author calls insight. His paper is based on five two-week periods and a three-month period of intensive meditation training. The latter is described as follows:

A typical daily schedule includes seven to nine sessions of sitting meditation for forty-five minutes to an hour; four or five periods of slow, mindful walking for thirty to forty minutes; and regularly scheduled periods for meals, rest and meditation instruction (Goldstein, 1976). In addition, students are instructed to develop a continuous and careful attention to each movement or action which takes place between fixed periods of group sitting and walking. Retreats usually take place in a silent monastic setting and all other such activities are prohibited. This leaves the student outwardly undistracted, providing a simplified environment for assisting in the task of self-observation. (p. 42)

Summarizing the data obtained, Kornfield gives a generalized description of a meditation state. Below we quote the most interesting, to our mind, fragments of this description:

1. *Meditation* itself is not an altered state of consciousness, but can be seen as a series of mental exercises designed to effect certain changes in how a person sees or relates to the world. As such, we cannot study a meditative state, but only examine the kinds of states, experiences and changes produced by various meditative practices . . . *Mindfulness* meditation is much more than a process of simple relaxation . . .

From our data it seems clear that the modern psychiatric dismissal of these so-called “mystical” and altered states as psychopathology—referred to as ego-regression to an infantile state—or labeled as psychic disorder, is simply due to the limitations of the traditional Western psychiatric mental-illness-oriented model of mind. . . . Rather, these experiences are normal perceptual changes happening in predominantly healthy individuals as part of a rigorous and systematic mental training of concentration and mindfulness . . .

The data show a strong positive correlation between student reports of higher levels of concentration (focused and steady mind-states) and reports of “unusual altered states and perceptions” . . . The development of the insight practice appears to have increased the frequency of moments of mindfulness in the retreat environment . . . Likewise, intense emotions and mood swings are a universal part of the practice reported in mindfulness retreats . . . Spontaneous body movement, often described as “unstressing” and “energy release” is commonly reported during mindfulness retreats . . . Body pain is reported as a frequent meditation experience. Many students describe finding new ways to relate to their pain as a result of mindfulness practice . . . Rapture and bliss states are also common at insight retreats and are usually related to reported increases in concentration and tranquility . . . Marked decreases in sleep and eating occurred during the practice at intensive retreats . . . Exceptionally vivid dreams and nightmares are a very common experience during insight retreats. Also reported are general increases of awareness before, during and immediately following sleep times . . . There are few reports of spontaneous psychic phenomena in the sample studied. Experiences described as “out-of-the-body” travel are the kind most commonly noted . . . Meditation does not appear to be a linear learning or developmental process. Instead, the “mindfulness” meditation<sup>4</sup> appears to include periods of regression, restructuring and reintegration as part of the basic growth pattern. (p. 50-53)

<sup>4</sup> Mindfulness meditation (in Buddhist terms *vipassana*) includes three stages: Preliminary (or Moral)

This is a purely scientific,<sup>1</sup> statistically supported description of features common for the majority of subjects in systematic and intensive meditation. The article quoted includes several, though very short, fragments of reports.

Summing up, we may say that the aim of meditation is to achieve a state which could be called a controlled waking dream. In a dream we are free from the paradigm of our culture and so it is also possible to say that the aim of meditation is *dehypnotization* (Walsh, 1979), the liberation of consciousness from the induced rubbish of thoughts, images, and fantasies. In other words, meditation proves to be directed at gaining inner freedom through liberation from identifying ourselves with preconceptions imposed on us by the discrete, dualistically oriented vision of the world.

### C. Meditation in Eastern Christianity

What we have in mind is the tradition of Byzantine *hesychasm*. Here is what Meyendorf (1974) writes on the point:

The most ancient and originally the only existing meaning of the term reflects the ascetic contemplative way of life of Christian monks which appeared in Egypt, Palestine and Asia Minor at the end of the IIIrd century and especially at the beginning of the IVth century. The word "hesychia" (*ἡσυχία*) which means "silence," "peace" indicates the ideal of individual anchoritism, very different from the monastic communal life founded by Pakhomy the Great and presupposing strict outward discipline of life and labor. Not excluding external rules, the life of an hesychastic monk was determined by inner prayer, "wise doings," aspiration for personal "defying" as a start of transforming other people and the whole world. (p. 292)

In the contemporary scientific literature the term "hesychasm" is often applied to a psychosomatic technique for performing "Jesus's prayer" which was noted among Byzantine monks in the XIIIth and XIVth centuries. "Permanent prayer" since Euagrius was one of the principal attributes of contemplative monasticism; "Jesus's prayer" is a constant appeal in various word combinations to Jesus Christ whose name, according to St. John Climacus (VIIth century), should be "joined to breathing." These words were sometimes understood literally; to use breathing as a way to concentrate one's attention and

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Training, Concentration Training, and Insight Training (on the relation between the two latter stages, see p. 101).

<sup>1</sup> Also note a detailed, despite its brevity, review by Walsh (1979) devoted to experimental research on meditation states, carried out in the traditions of Western psychology.

link the prayer with the unbreaking somatic function and thus to achieve the state of "permanent prayer." As distinct from platonic spiritualism of Euagrius, this psychosomatic "method" (*μεθοδος*) of prayer presupposes a positive attitude to the bodily, material aspect of human life. It is related to the tradition of scriptures attributed to Macarios the Egyptian and, which is highly probable, was used among Bogomils<sup>6</sup> (in its crude, folk, almost magic form). (p. 293)

There are grounds for believing that the tradition of hesychasm in some semiunderground form has been preserved almost to the present moment in Russian monastic life, especially in such phenomena as *starchestvo*<sup>7</sup> and *skhimnichestvo*<sup>8</sup> which played a very important role in Russian spiritual life opposing the official ritual Orthodoxy going back to Joseph of Volotsk.<sup>9</sup>

Ideologically, *starchestvo* always existed under a cover of mystery, though one could from time to time come across mention of it in literature (recall starets Zosima in Dostoevsky's *Brothers Karamasov*). The esoteric aspect of this trend was broken after the appearance of the book *Candid Narratives of a Pilgrim to His Spiritual Father*. This is a story of a hesychast method of prayer told by a man wandering about Siberia in the 1850's. The history of the book is of interest. Its author is unknown. A copy of the original manuscript came into the hands of a monk on Mount Athos; then it passed to the Abbot St. Michael's monastery at Kazan and was printed at Kazan in 1884. It has, of course, become a bibliographic rarity. We had an opportunity to get acquainted with this book in its English translation, *The Way of a Pilgrim* (1965), from which the following quotations were taken.

The pilgrim learned of Jesus's prayer both from the oral teachings of his spiritual father, a starets of Irkutsk, and from the book *Love for the Good*, an extensive collection of works by the Fathers of the Orthodox Church of the period around the eleventh century.

<sup>6</sup> Bogomils were a heretical movement which emerged in the Balkan countries at the beginning of the tenth century. Their teaching proceeds from the idea of the world's duality (incessant struggle between good and evil), rejection of the Old Testament, negative attitude toward the state, and condemnation of wealth. The formation of their teaching seems to have been affected by Manichaeism, a trend of Gnosticism. The Bogomils, in their turn, brought to life certain West-European heresies, namely, Catharic and Albigensian. The Bogomils were connected with Byzantium through Paulicians, a heresy formed there in the seventh century.

<sup>7</sup> Starets means a monk distinguished by his great piety, long experience of the spiritual life, and gift for guiding other souls. Lay folk frequently resort to *startsi* for spiritual counsel, and in a monastery a new member of the community is attached to a *starets* who trains and teaches him.

<sup>8</sup> Skhimnik means a monk (nun) of the higher grade. The Russian skhimnik is the Greek *megaloschemes*.

<sup>9</sup> The Victory of Joseph of Volotsk over Nil Sorsky, who personified the mystic branch of Orthodoxy, signified the submission of the Church to the Russian state, its loss of spirituality. For details see Fedotov (1959).

It seems relevant to quote here a few teachings of the Starets on the technique of an unending prayer.

Here is a rosary. Take it, and to start with say the prayer three thousand times a day. Whether you are standing or sitting, walking or lying down, continually repeat "Lord Jesus Christ, have mercy on me." Say it quietly and without hurry, but without fail exactly three thousand times a day without deliberately increasing or diminishing the number. God will help you and by this means you will reach also the unceasing activity of the heart. (p. 12-13)

For two days I found it rather difficult, but after that it became so easy and likeable, that as soon as I stopped, I felt a sort of need to go on saying the Prayer of Jesus, and I did it freely and willingly, not forcing myself to it as before.

I reported to my starets, and he bade me say the Prayer six thousand times a day, saying, "Be calm, just try as faithfully as possible to carry out the set number of prayers. God will vouchsafe you his grace." (p. 13)

Waste no time, therefore, but make up your mind by God's help from today to say the Prayer of Jesus twelve thousand times a day. Remain in your solitude . . .

I did as he bade me . . . The thumb of my left hand, with which I counted my beads, hurt a little. I felt a slight inflammation in the whole of that wrist, and even up to the elbow which was not unpleasant. Moreover, all this aroused me, as it were, and urged me on to frequent saying of the Prayer. (p. 14) . . . I lived as though in another world, and I easily finished my twelve thousand prayers by the early evening. (p. 15) . . . Now I give you my permission to say your Prayer as often as you wish and as often as you can. (p. 15) . . . During sleep I often dreamed that I was saying the Prayer. And during the day if I happened to meet anyone, all men without exception were as dear to me as if they had been my nearest relations. But I did not concern myself with them much. All my ideas were quite calmed of their on accord. (p. 16) . . . Again I started off on my wanderings. But now I did not walk along as before, filled with care. The calling upon the Name of Jesus Christ gladdened my way. Everybody was kind to me, it was as though everyone loved me. (p. 17)

After no great lapse of time I had the feeling that the Prayer had, so to speak, by its own action passed from my lips to my heart. That is to say, it seemed as though my heart in its ordinary beating began to say the words of the Prayer within at each beat. Thus, for example, *one*, "Lord," *two*, "Jesus," *three*, "Christ," and so on. I gave up saying the Prayer with my lips. I simply listened carefully to what my heart was saying. (p. 20)

These last words seem especially noteworthy. They distinctly express the major goal of hesychasm: achieving a specific psychosomatic state

through the sensation of Time as Prayer coming from within one's heart of hearts.

The book finishes with the praise to the Power of Prayer said by the Skhimnik. The burden of the praise is as follows:

. . . Pray, and think what you will . . . Pray, and do what you will  
 . . . Pray, and do not labour much to conquer your passions by your  
 own strength . . . Pray, and fear nothing . . . Pray *without ceasing*.  
 (p. 207-208)

It would also be relevant to go back to the source of hesychasm and quote some other words on the mindful prayer, prayer-meditation, which accustomed "the mind to keep concentrated on one point."

The quality of a prayer is communication (*merging* into one being) and *communion* of man and God. (John Climacus)<sup>19</sup>

Jesus's prayer . . . is in its essence a direct, most intimate and live *communion* of our spiritual nature, or of the inner man, with Our Lord Jesus Christ . . . and through him with God-Father and Holy Spirit. (Skhimnik Ilarion, 1910)

The true prayer is that which comes directly from one's heart and ascends to God. And no other prayer is a prayer if it is not such as this. And all our care in the act of praying should concern this. But our mind is usually encumbered by a lot of non-divine thoughts, our will—by many daily concerns, our heart—by compassions and earthly pleasures and for this reason for us to ascend to God is the same as to climb out of the quagmire. Small prayers are very useful for this purpose. They accustom *the mind to keep concentrated on one point*; little by little they draw the compassion to themselves and distract from the daily concerns. This effect becomes stronger if one prays them not only in the ritual hours but also in some other time. The finite fruit is a formation of the feeling towards God, inseparable from the ceaseless prayer, or is the same. It brings about a live communion with God—the goal of spiritual life. (Episcop Feofan, 1898, Book I, p. 235)

. . . God is everywhere; act so that your thought should also be always with God. But what are you doing? Thoughts are dancing like gnats in their columns, and over thoughts are feelings of the heart. In order to *join the thought to one point*, startsi used to accustom themselves to the ceaseless pronunciation of a short prayer; because of the

<sup>19</sup> The Reverend John Climacus (Lestvichnik Yoann) was born about 525; at the age of 16 he entered Sinai convent and in 534 he became a hermit—first in a cell and then in a cave. He lived thus for 40 years, whereupon the Sinai monks elected him their Superior; his year of death is unknown. The name Lestvichnik Yoann (St. John of the Ladder) is derived from the title of his book *The Ladder to Paradise*.

habit and frequency of its repetition such a prayer was pronounced as if by the tongue itself.

Through this the thought also joined the prayer, and through the prayer—the ceaseless contemplation of God. The habit linked the prayer with the memory of God, and the memory of God with the prayer, and thus they mutually held each other. So came the life with God. These short prayers had been various, but later everybody preferred only Jesus's prayer: "My Lord Jesus Christ, Son of God, have mercy on me." Everybody got accustomed to repeat it and with it guard the memory of God. So you see now the place of Jesus's prayer and its significance. As it is, this is not an intellectual prayer, but a *verbal, external* one, as all other written prayers, but this is a *means* towards a mindful prayer when someone is praying to God. (Episcop Feofan, 1898, Book II, p. 55–56)

The above quotations show that, according to the teachings of Holy Fathers, the quality of prayer is defined by such words as "merging," or "communion." We also see that the external part is not the prayer–communion proper, but a preceding part helping *to join the thought to one point*, to concentrate, to gather one's thoughts, and, moreover, to remain in this state: "to live with God."

We emphasize these words primarily because they express the internal relations between esoteric schools practicing meditation. The state of meditation is felt as *merging, or communion*.

The states of communion can be witnessed from aside: on this aspect the text of a dialogue between the priest N. A. Motovilov with the Reverend Serafim Sarovsky,<sup>11</sup> one of the most outstanding representatives of Russian holiness of the recent past, is of interest:

You will remember this firmly and forever, though you can't always remain in such a state, but if you feel this within yourself at least a little, you must know, my heart, that you are in the Divine Spirit.

This state of being "in the Divine Spirit" (i. e., of merging) is described in this dialogue in detail, and sensory impressions and sensations determining the state of acquiring "the Divine Spirit" are indicated.

This state can first of all be noticed visually. We say "first of all" because the first thing to which Motovilov's attention is drawn and which is confirmed by the Reverend Serafim is the *light*.

We are now in the completeness of the Divine Spirit. Why aren't you looking into my, poor Serafim's, eyes?

<sup>11</sup> Serafim Sarovsky (1759–1833), iheromonakh (one of the grades in Orthodox Monasticism), Desert Father and hermit, the latest of the canonized (1903) Russian saints. The record of his dialogue with Motovilov can be found in the book by Denisov (1904).



I can't, because your eyes cast lightnings, and my eyes ache to look at them, and I can't look at you, Father Serafim, because you're brighter than the sun.

The description repeatedly emphasizes the bright and intensive light and the impossibility of perceiving it with the eyes (eyes "cast lightnings," "brighter than the sun," "eyes ache," "the light pricks my eyes," etc.).

The next impression is peace "exceeding any mind."

"I feel such peace in my soul," I replied, "that there is no word to express it."

Further, "inexpressible sweetness" is mentioned. Then "such joy as no tongue can tell." Then follows "remarkable warmth."

"But how," he [the Reverend Serafim] went on, "can it be so warm? It is now the end of November, it is winter, there is snow under our feet, and snow on our heads, and it is snowing and the wind is blowing, so how can it be as warm as in the baths?" And he added: "So, the warmth is not in the air, but within ourselves. This is the warmth which we mention in our prayer to God: 'Warm us with the warmth of Your Holy Spirit' . . . So this warmth is not in the atmosphere of the air, but in the atmosphere of our soul and flesh, and it is also in our spirit."

And at last comes smell. Speaking of smell, Motovilov recalls that this smell was sweeter than the fragrance of scent. Supporting this impression, the Reverend Sarafim remarks:

. . . those were the scent extracted from the flowers on the earth, and this is heavenly fragrance of the Divine Holy Spirit; and it must be so that this fragrance is innumerable stronger and sweeter, as if from the breathing of the life of our God, the Creator."

Thus the Reverend Sarafim Sarovsky claims that the perception of the Divine Spirit is accessible to our organs of feeling in the above categories: our eyes see the light, our nose feels the smell, we perceive it "vividly, clearly, distinctly."

However, this is "the most extreme completeness" of the Divine Spirit, and nobody can remain for long in such a state.

For instance, if God had granted us, poor, with such a state at least for a day, we could not have stood this, and our perishable flesh would *have broken*, and we would have died, though joyful and

God-inspired our death would have been; because this our joy would have led us to a greater spiritual ecstasy, and we could not have taken any food or water, and *having melted* from the inner sweetness, we would have lost our temporal life; because our flesh in the present fallen state cannot endure such a force of inspiration of the Divine Spirit."

We have dwelt at length on the texts of Oriental Christianity first of all so as not to form an erroneous impression that the practice of meditation was typical exclusively of the spiritual life of the Far East. It would seem correct to believe that meditation, in its various manifestations, was common to all developed religions. We are not in a position to quote here a sufficient number of papers to prove this hypothesis, but the formulation of the problem is essential in itself: if this hypothesis is proved, this will be an important contribution to our conception of human nature.

From the psychological viewpoint it would also be important to pay attention to the existing differences both in meditation techniques and in the description of meditation states which are primarily determined by the general outlook of those experiencing meditation.

From the excerpts quoted above it distinctly follows that in the description of meditation states achieved during mindful prayer, as should follow from the hesychastic outlook, psychosomatic characteristics come to the fore: inexpressible joy, warmth, the feeling of light, and smell; the last two characteristics are also felt by those present. The state itself is characterized by complete aloofness; it is even death-like; one cannot come across any mention of the new vision of the world. This may be compared with the meditations of the Western mystic Eckhart, to be briefly discussed in the next section. His sermons contained the cardinal philosophical questions; the obviousness of his answers was determined only by what the preacher had experienced in the depths of his spirit. This makes his sermons very attractive but, naturally, only for those who can experience the same.

It is interesting to draw attention to sharply negative attitudes toward language in hesychasm. Medieval Russian culture was a culture of silence. It produced no written monuments, and we can judge its spiritual content only by the images it created: icons, plastic architectural forms of churches, church decorations, illuminations in holy books. We possess no written interpretations of holy texts which would be clear for us and enable us, people of a verbal culture, to comprehend the peculiarities of the medieval Russian outlook. What has remained is not only iconological thinking but also an iconological form of its expression (Pomerants, 1974). The uniqueness of Russian medieval culture lies in its source: in Byzantine hesychasm.

## D. Meditation in Medieval Europe: The Sermons of Meister Eckhart

*He brought praise to the great invisible virginal Spirit,  
the silence of the Father in a silence of the living silence of  
silence, the place where the man rests.*

### GOSPEL OF THE EGYPTIANS

For some reason or other, meditation is primarily connected with Oriental spiritual life, but actually the spiritual life of the Medieval West was also submerged in the state of meditation. Of great interest in this respect are the sermons of Meister Eckhart<sup>12</sup> which contain not only descriptions of the states of meditation but also of the new experience he had acquired during these states.

According to Eckhart, meditation is silence in which new consciousness is acquired. Here is what he says on this point in his sermon "This is Meister Eckhart from whom God hid nothing" (Eckhart, 1941).

This, then, is the saying of the wise man: "While all things were wrapped in peaceful silence . . . a secret word leaped down from heaven, out of the royal throne, to me." This sermon is to be on that word. (p. 95)

Let us take first the text: "Out of the silence, a secret word was spoken to me." Ah, Sir!—what is this silence and where is that word to be spoken? We shall say, as I have heretofore, it is spoken in the purest element of the soul, in the soul's most exalted place, in the core, yes, in the essence of the soul. The central silence is there, where no creature may enter, nor any idea, and there the soul neither thinks, nor acts, nor entertains any idea, either of itself or of anything else. (p. 96).

In Being, however, there is no action and, therefore, there is none in the soul's essence.

The soul's agents, by which it acts, are derived from the core of the soul. In that core is the central silence, the pure peace, and abode of the heavenly birth, the place for this event: this utterance of God's word. By nature the core of the soul is sensitive to nothing but the divine Being, unmediated. Here God enters the soul with all he has and not in part. (p. 97)

Of nothing does the soul know so little as it knows of itself, for lack of means. (p. 97)

<sup>12</sup> Meister Eckhart (1260–1327), a German theologian and philosopher, was a Dominican monk of knightly descent. In the last years of his life, the Catholic church accused his sermons of being heretical. Two years after his death, twenty-six of his propositions were proclaimed as such in a papal bull. His sermons were recorded by his listeners from memory.

When all the agents of the soul are withdrawn from action and ideation, then this word is spoken. Thus he said: "Out of the silence, a secret word was spoken to me." The more you can withdraw the agents of your soul and forget things and the ideas you have received hitherto, the nearer you are to [hearing this word] and the more sensitive to it you will be. (p. 99)

This is the way a man should diminish his senses and introvert his faculties until he achieves forgetfulness of things and self. (p. 99)

May God, newly born in human form, eternally help us, that we frail people, being born in him, may be divine. Amen. (p. 102)

And here is a direct description of meditation as relaxation aimed at becoming a "desert":

Above all, claim nothing for yourself. Relax and let God control you and do what he will with you. The deed is his; the word is his; this birth is his; and all you are is his, for you have surrendered self to him, with all your soul's agents and their functions and even your personal nature. Then at once, God comes into your being and faculties, for you are like a desert, despoiled of all that was peculiarly your own. The Scripture speaks of "the voice of one crying in the wilderness." Let this voice cry in you at will. Be like a desert as far as self and the things of this world are concerned. (p. 115)

Eckhart's conception of Time is extremely interesting. Note that he considered Time together with Doing:

. . . I have also said that deeds and time are nothing of themselves. And if they are nothing in themselves, then, the person who loses them loses nothing! It is true. Still I have gone further; neither Time nor deed has any being or place of itself. In fact, they only issue from the spirit out into time. Whatever the spirit does afterwards, it must be in another deed at another time, and neither of these can ever get into the spirit in so far as it is either deed or time. Neither can it penetrate God, for no temporal deed ever got into him, and for this reason alone it becomes as nothing and is lost. (p. 138, from the sermon "The fruits of good deeds live on")

We are also struck by the problem of the *fullness of Time*:

In the fullness of time, grace was born. The fullness of time is when time is no more. Still to be within time and yet to set one's heart on eternity, in which all temporal things are deed, is to reach the fullness of time.

One Scripture says that three things there are, that prevent a person from knowing anything about God at all. The first is time, the second, materiality, the third, multiplicity. As long as these three are in me, God is not mine nor is his work being done. Thus St. August-

tine says: "The soul is greedy, to wish to know so much, and to have and hold it, and so, grasping for time, materiality and multiplicity, we lose what is uniquely our own." As long as [the spirit of "Give me"] "More and More!" is in man, God can neither live nor work. All these things must be got rid of before God comes in and you may have them in a higher and better way, namely, that the many are made one in you. Thus, the more multiplicity there is, the more you will require unity in yourself, if one is to be changed into the other. (p. 151-152)

When time was full, the grace was born. That everything in us may be made perfect, that the divine grace, may be born in us, may God help us all! Amen. (p. 155)

However, this view has its dialectical opposition:

Three things there are that hinder one from hearing the eternal Word. The first is corporeality, the second, number, and the third, time. (p. 203, from the sermon "Distinctions are lost in God")

Whereas in these fragments one can hear the appeal to give up any action and thus stop time and obtain Beatitude, in the sermon "God enters free soul" we hear the hymn to action, and in this hymn the words of the preacher sound very chivalrous:

"Wife" is the optimum term that may be applied to the soul. It is even above "virgin." That within himself, a man should receive God is good; and receiving God, the man is still virgin. Nevertheless, it is better that God should be fruitful through him, for fruitfulness alone is real gratitude for God's gift and in fruitfulness the soul is a wife, with newborn gratitude, when it bears Jesus back again into the Father's heart. . . . your soul will bring forth no fruit other than the discipline to which you are so anxiously committed and you will trust neither God nor yourself, until you are finished with it. In other words, you will find no peace, for no one can be fruitful until he is done with his own work. (p. 208)

What I have been saying to you is true, as I call on Truth to bear witness and my soul to be the pledge. That we, too, may be castles into which Jesus may enter and be received and abide eternally with us in the manner I have described, may God help us! Amen. (p. 211, from the sermon "Distinctions are lost in God")

Listening to these amazing words full of deep and sometimes mysterious meaning, we see philosophy turning into poetry. But under the cover of these rather unfamiliar words that have much in common with the apocrypha of early gnostic Christianity, we discover with surprise our own ideas which we are trying to develop in this book.

It seems to us that what we have so verbosely expounded about medi-

tation is contained in Eckhart's words on the silence of the soul. And our conception of individuality as a selective, probabilistically weighted manifestation of a unique integrity seems to have much in common with his ideas that people are linked with integrity through being in non-being. And, finally, our attempt to define personal time through Doing sounds almost like an exposition of Eckhart's thoughts about time. And we see with amazement that the power of meditation had enabled the medieval Catholic preacher to acquire the dialectical comprehension of Doing which is again in harmony with our ideas.

But we constantly feel the desire to look for a new language and to express it. Strange as it may seem, we can actually comprehend what had been said in the old language only after we find that we have managed to say it independently in a new language. We observe then the contact of two different consciousnesses separated in time by many centuries.

## E. Dream as a State Close to Meditation

*Dreams are the voice of the unknown . . .*

JUNG

The meditational state of consciousness is naturally compared with certain dreaming states. Humanity seems to have been attracted by dreams from time immemorial: people were eager to understand their role, to classify and interpret them. A brief historical account of the interpretation of dreams is given in the book *The Forgotten Language* (Fromm, 1951). Historically, especially interesting is the interpretation of dreams found in the Talmud. Fromm repeats as a refrain the words of Rabbi Chisda: ". . . the dream which is not interpreted is like a letter which is not read."

In European culture it was Freud who first drew people's attention to dreams. We are not going to dwell here on his well-known theory which, though extremely popular in the West, is, to our mind, too one-sided and therefore unavoidably simplifies the entire manifold of human drives and reduces man to an asocial and primitively irrational creature.<sup>13</sup>

We consider the approach of Fromm, who also starts from psychoanalysis but tries to broaden and deepen the conception of dreams, much

<sup>13</sup> Jung, who for some time had been Freud's personal friend, subjected the sexually oriented Freudian concepts to a penetrating and at the same time devastating criticism (Jung, 1965). Independently of Freud, Jung came to understand the major role of dreams, but he ascribed to them another meaning, having connected dreams with human spirituality and evolution and participation in the cosmic, collective unconscious.

more interesting. Below we quote several statements from his above-mentioned book (Fromm, 1951):

. . . all myths and all dreams have one thing in common, they are all "written" in the same language, *symbolic language*. (p. 7)

The myths of the Babylonians, Indians, Egyptians, Hebrews, Greeks are written in the same language as those of the Ashantis or the Trukese. The dreams of someone living today in New York or in Paris are the same as the dreams reported from people living some thousand years ago in Athens or in Jerusalem. The dreams of ancient and modern man are written in the same language as myths whose authors lived in the dawn of history.

Symbolic language is a language in which inner experiences, feelings, and thoughts are expressed as if they were sensory experiences, events in the outer world. It is a language which has a different logic from the conventional one we speak in the daytime, a logic in which not time and space are the ruling categories but intensity and association. It is the one universal language the human race has ever developed, the same for all centuries and throughout history. (p. 7)

. . . I believe that symbolic language is the one foreign language that each of us must learn. (p. 10)

Indeed, both dreams and myths are important communications from ourselves to ourselves. (p. 10)

Symbolic language is a language in which we express inner experience as if it were a sensory experience, as if it were something we were doing or something that was done to us in the world of things. Symbolic language is language in which the world outside is a symbol of the world inside, a symbol for our souls and our minds. (p. 12)

While we sleep we are not concerned with bending the outside world to our purposes. We are helpless, and sleep therefore, has rightly been called the "brother of death." But we are also free, freer than when awake. We are free from burden of work, from the task of attack or defense, from watching and mastering reality. (p. 27)

Sleep and waking life are the two poles of human existence. Waking life is taken up with the function of action, sleep is freed from it. Sleep is taken up with the function of self-experience. When we wake from our sleep, we move into the realm of action. (p. 28)

Consciousness is the mental activity in our state of being preoccupied with external reality—with acting. The unconscious is the mental experience in a state of existence in which we have shut off communications with the outer world, are no longer preoccupied with action but with our self-experience. The unconscious is an experience related to a special mode of life—that of nonactivity. (p. 29)

. . . the paradoxical fact that we are not only less reasonable and less decent in our dreams but that we are also more intelligent, wiser, and

capable of better judgment when we are asleep than when we are awake. (p. 33)

However, despite the broadness of his views, Fromm links dreams only with human personality. A transpersonal, cosmic attitude toward dreams can be found in Jung (quoted from Fromm, 1951):

Man is never helped by what he thinks for himself but by revelations of wisdom greater than his own. (p. 97)

We would like to quote here the following words of Jung (1962):

I am doubtful whether we can assume that a dream is something else than it appears to be. I am rather inclined to quote another Jewish authority, the Talmud, which says: "The dream is its own interpretation." In other words, I take the dream for granted. The dream is such a difficult and intricate subject that I do not dare to make any assumption about its possible cunning. (p. 31)

Nevertheless, Freud, Jung, and Fromm, like many other authors of the remote past, all try to *interpret* dreams, i.e., to translate them into the familiar language of everyday reality determined by our culture. Interpretations of dreams by Jung, scattered through his books, are extremely interesting and meaningful. He seems to have had a real talent for this.

But perhaps another approach is possible: direct, unconceptualized comprehension—an attempt to understand without reflection, in the way one understands music or poetry. One does not, probably, exactly understand something, but is carried away without inner opposition to what has been evoked by the dream and what must reveal itself in our waking life. In other words, one must be deeply attentive to one's dreams since it is in dreams, on the unconscious level, that our value concepts are reconstructed. We shall return to discussing this problem in section G of this chapter.

Of interest in this respect are the activities of Rogers (1976a). For him a dream is not a text to be interpreted ("mentalized") but the concrete reality that yields to mastery only through personal experience. But let him say it in his own words:

The process may vary tremendously from time to time. You may experience night travel for only part of your sleep state; your consciousness may be comparatively dormant during the rest of your sleep. The dreams and travel may take a short amount of time, or all night. Your meaningful experiences may come shortly after you go to sleep, in the early hours of the morning, or just before you get up. Do you get the idea? There is no only way. There are many ways. You have to discover your own. (p. 32)



When you learn the techniques of how to expand your consciousness (and recording your dreams is an important one) you can be aware of all levels of consciousness at the same time with an awareness that is as real as the awareness of the physical that you have right now. This multidimensional awareness comes with a realization and a knowing and a being; it does not come from thinking about or mentalizing this material. (p. 33)

The dream state, the night travel on the other side, is a learning experience. It is a progression of our consciousness into the higher levels of Light. Our freedom lies in the Soul Consciousness. When we reach there, we can go even higher into the Supreme God center and become a co-worker with God. The progression that is open to us is endless and infinite. As we travel above the Soul Realm, we come into total awareness of God-Consciousness and we experience the great Ocean of Love and Mercy. There are no words for these experiences. To have the understanding, *you* have to experience it. You have to do this for yourself. I can't do it for you, let alone tell you. You find the truth within yourself. You move through *all* the levels of consciousness. No matter what, you don't stop; you continue the progression. If you don't stop, you cannot be found by illusion. As soon as you stop and say, "This is it," the illusion will be there to put you in bondage. Keep going—always. The night travel is a training ground in the illusion. Through the dream process you can learn to recognize and bypass the illusions, continually. These are our lessons of spiritual unfoldment. But you must work through these things by yourself; your spiritual development is individual. I can point out the way; I can be a way-shower. I can travel with you and stand by you. I can clarify things for you and support you and guide you, if you'll let me. I am with you always, but I cannot do it for you. You must bring to yourself conscious guidance and direction if you are to move yourself forward on the path of your spiritual inner awareness and the path of your spiritual evolvement through the lower worlds into the realms of pure Spirit where you reside in the freedom of your own Soul Consciousness. (p. 33-34)

These fragments show us that the dream is meditation in its natural form. Later, in section G, we attempt to consider the problem of dreams with respect to human creativity.

Extremely interesting for a scholar studying consciousness is the idea of the prophetic nature of some dreams. Solving dreams like riddles that predict our future seems to have been typical of all cultures except ours, which has to a great extent lost contact with the unconscious. Why was this procedure considered so important? What brought it about? It will never do to reject all of the past as ignorance.

We think that solving prophetic dreams is one of the forms of probabilistic prediction inherent in people. People in their everyday life con-

stantly forecast events both close and remote in time. By leaving their homes, people forecast possible events of the day; by getting married, entering a college, or taking a job, they forecast situations of the remote future. Such forecasting, characterized by a high degree of uncertainty, is always probabilistic (Feigenberg, 1972): a person must always be doubtful as to the predicted events, and he should be aware of these doubts, thus preparing himself for the possibility of a different outcome. Any rigid forecasting would unavoidably bring people in their further activities to blind alleys.

At the same time, if we proceed from the conception developed here, we may assume that forecasting—at least, of significant events—should occur at the unconscious level, in dreaming, when the activities of the unconscious are not blurred by the distractions of the waking hours. Hence, it would be natural to expect forecasting dreams to be of a symbolic nature.

Indeed, prophetic dreams are commonly classified according to the following pattern: symbolic dreams and metaphoric dreams; dreams as images from the anti-world which forecast the future by interpreting the dream as an anti-event (e.g., in the simplest case if one dreams that a lost thing is found, this means it is lost for good); and, finally, dreams interpreted on the basis of verbal homonymy [e.g., if one dreams of a horse (loshad') in Russian, this means he will be lied to ("lie" is "lozh'" in Russian); the pronunciation of the first letters of the words "loshad'" and "lozh'" is almost identical].

It is natural to assume that the interpretation of symbols may only be probabilistic. Therefore, Bayes's theorem is again relevant here. The semantics of an isolated symbol taken outside a concrete situation may be denoted by the prior distribution function  $p(\mu)$ ; in a concrete situation  $y$  there emerges a preference function  $p(y|\mu)$  by means of which, according to the theorem, the initial, prior concepts are reduced. This explains the important role of dream interpreters—those who are able to choose successfully the preference function. One such famous dream interpreter who went down in history was Joseph the Beautiful. Below we quote the parable of the dream with seven cows (Genesis, 41).

17. Then Pharaoh said to Joseph, "Behold, in my dream I was standing on the banks of the Nile;

18. and seven cows, fat and sleek, came up out of the Nile and fed in the reed grass;

19. and seven other cows came up after them; poor and very gaunt and thin, such as I have never seen in all the land of Egypt.

20. And the thin and gaunt cows ate up the first seven fat cows,

21. but when they have eaten them no one would have known that

they had eaten them, for they were still as gaunt as at the beginning. Then I awoke.

22. I also saw in my dream seven ears growing on one stalk, full and good;

23. and seven ears, withered, thin, and blighted by the east wind, sprouted after them,

24. and the thin ears swallowed up the seven good ears. And I told it to the magicians, but there was no one who could explain it to me.’

Joseph was able to guess the meaning of the dream:

29. There will come seven years of great plenty throughout all the land of Egypt,

30. but after them there will arise seven years of famine, and all the plenty will be forgotten in the land of Egypt; the famine will consume the land,

31. and the plenty will be unknown in the land by reason of that famine which will follow, for it will be very grievous.

32. And the doubling of Pharaoh’s dream means that the thing is fixed by God, and God will shortly bring it to pass.

The interpretation is obviously situational, for only Pharaoh’s dream could be interpreted on such a wide national scale. Of importance is the comprehension of an uncertain nature of the dream; like a contemporary interpreter with a probabilistic disposition, Joseph emphasized that the “doubling” of the dream increased its significance (the probability of dreaming the same dream, if we were able to calculate it, would make us reject the idea that we are dealing with a random phenomenon independent of the situation). Joseph’s interpretation produced such a strong impression on Pharaoh, that he “set Joseph over all the land of Egypt,” and the latter, by his clever actions, managed to save Egypt from famine, whereas all other lands suffered greatly from it.

It seems superfluous to speak here of metaphorical dreams since metaphorical interpretation is to a certain degree symbolic. We would rather direct attention to dreams interpreted as anti-events. Again, such an interpretation is always uncertain. One can never state unambiguously what the situation will be in our world, which is the anti-world with respect to the dream. We feel that forecasting by means of an anti-situation is a trick of our consciousness which arbitrarily makes the forecasting void of rigid determinism.

As to the interpretation of dreams on the basis of homonymy, this is merely vulgarization. The same is true of dream books: they are only a profanation made by those who did not actually understand that the interpretation of dreams was an art. For us it is important that this art mas-

tered by mankind is one of the manifestations of the richness of human psyches.

We should state at once that not only adult humans have dreams; in some other, uncontrollable form they are inherent in children and even in birds and animals. If this is actually so, then perhaps this is further evidence in favor of the hypothesis that all of us, people and animals, are attuned to the same fields of the semantic universe. In any case, this is what Galvin (1979) wrote:

. . . William Dement (Stanford Univ.) reported in 1958 that a cat's EEG showed a regular pattern identical to human rapid-eye-movement sleep. This conclusion gave sleep researchers a much-needed model with which to study the mechanism of sleep and what causes it. Virtually every mammal and bird studied since then has been shown to have REM sleep. Earlier, in Chicago, Nathaniel Kleitman and Dement noticed something equally extraordinary: newborn babies, too, have rapid eye movement during most of their sleep. Are cats, dogs, and babies dreaming? If so, about what? If not, what is the meaning of this intense internal activity?

Perhaps animals differ from people in that their unconscious is projected onto psychological subspaces of an essentially smaller dimension. The intriguing mystery of dolphins may have a very simple solution consisting in the fact that their psychological subspace is very close to the human.

We are not able to dwell here upon the numerous studies devoted to the physiological procedures of dream research. Encephalographic methods of studying the brain in the dream state have developed intensively from the beginning of the 1950's. Researchers have discovered the relationship between dreams and certain phases of encephalograms, though the semantics of dreams still remains outside the sphere of their investigations.

Perhaps, the major result of these studies is the recognition that, in contrast to what Pavlov and many other scientists asserted earlier, in dreaming the cortex of the brain is not inhibited but, on the contrary, is in a very active state. Could we assume, proceeding from this fact, that it is in dreams that our basic concepts are formed, and in waking hours they are only comprehended and expressed verbally?

It is relevant to note that in certain situations dreams may acquire more reality than events experienced in a waking state. They can seem real for many years. Below we quote a fragment from the memoirs of Vera Figner (1964), a martyr of Russian revolutionary action:

The new life began. The life amidst deadly silence, the silence to which you are constantly listening and which you hear; the silence

which, little by little, wraps you up, penetrates into all pores of your body, your mind and your soul. How horrid is it in its wordlessness, how terrible in its soundlessness and in its accidental breaks! By and by you start to feel some mystery close by: everything becomes unusual, enigmatic as in a moonlit night in solitude, in the shadow of the silent wood. Everything is mysterious and incomprehensible. Amidst this silence the real becomes vague and unreal, and what you imagine seems real. A long gray day boring in its idleness, resembles a sleep without dreams. And at night you dream, and your dreams are so vivid and poignant that you must persuade yourself you are only dreaming. And so you live, and your dream seems to be life, and your life—only a dream. (p. 10).

In this way reality is turned upside down: the complete switching off from Doing proves to be an entrance into the world of another existence. The ceaseless forcible silence opens up another reality of existence. The versatility and adaptivity of our psyches consist in its faculty to discover facets of existence even where a man is forcibly switched off from it.

## F. Knowledge as an Experience

*It is not possible for any to see anything of those that are established unless he becomes like them. Not as with man when he is in the world: he sees the sun, but is not a sun; and he sees the heaven and the earth and all other things, but he is not these—so it is with the truth. But thou didst see something of that place and thou didst become these: Thou didst see the spirit, thou didst become spirit. Thou didst see Christ, thou didst become Christ. Thou didst see the Father, thou shalt become Father. Because of this, [here] thou seest everything and [dost not see] thyself. But thou seest thyself [in that place]. For what thou seest thou shalt [become].*

THE APOCRYPHAL GOSPEL OF PHILIP

The common Western concept of what *knowledge* is is determined by a fuzzy system of criteria of what is scientific in science. This system of criteria could be called a paradigm of positivism. Positivism as a philosophical teaching is but an attempt to view this paradigm through a system of distinct structures. Not many scientists would agree to such a view on the paradigm though they exist and work within its boundaries.

The Marxist view of logic and the methodology of science is, when all is said and done, nothing more than another attempt to comprehend and

justify the same paradigm. The main attribute of this paradigm is the rejection of a psychological approach in gaining and applying knowledge. This fundamental premise leads to many others, rather of a methodological nature, which prove to be common to both trends of thought indicated above. Among these premises are acknowledgment of the omnipotence of logic, belief in the objectivity of knowledge, a tendency to reduce all phenomena to elementary mechanistic processes, rejection of the consideration of metaphysical problems, and a scornful attitude toward human inner experience.

But there could be a different approach to what *knowledge* is. It might be regarded as a result of an immediate experience. Below we try to clarify the nature of such knowledge by three illustrations. We begin with a simple one.

1. They say there are people who can easily recognize a brand of brandy by tasting it. The mark of brandy is a symbol, a unit of semiotics, and the taste of brandy is the semantics underlying this symbol. A taster can easily put the semantics in correspondence with a respective symbol but cannot pass the information of semantics he gains while tasting brandy to another person lacking a similar experience. Communication carried out on the semiotic level yields no semantic information about a symbol to a person who has never experienced such semantics.

2. No writer or poet seems to have ever succeeded in conveying by the words of our language the experience which may accompany the state of intimacy. Only a hint is possible here. And we can hardly hope to have a computer stirred by such a hint, no matter how sophisticated computers may become in the future. Perhaps this is a manifestation of the sixth sense. Its intensity may vary as the intensity of the other five senses varies in different people: far from every person who can hear has an ear for music. In the various cultures this sense was developed differently, one making it delicate and fine, another reducing it to an obscenity. The Tantrism mentioned earlier managed to use this sense as a means of entering the state of meditation.

3. Imagine for a moment that people deserted the disfigured Earth but left behind certain working devices. When a person from another planet arrives on the Earth, he starts to study a working television set and records a number of data sets characterizing the changes in electric fields, light fields, and heat fields. Further, he would naturally subject the data to spectral analysis and try to interpret them. Would he be able by such an instrumental method to grasp the semantics underlying the data?

In all the above illustrations we dealt with a reality which can be seen only through man. Here we involuntarily come close to the viewpoint of

the existentialists. In order to obtain knowledge, one simply has to be in the world (*être au monde*, according to Merleau-Ponty; *in der Welt sein*, according to Heidegger).

At the beginning of our era, European culture had had two alternative ways of obtaining knowledge: Aristotelian, which was completed by a scientific-positivistic, instrumental vision of the world, and Gnostic-Christian, which opened up the road to the depths of the world by knowledge as an experience. Gnosis is the knowledge of the world in its universal meaning, knowledge gained by merging with it through Love. Knowledge became Joy, and World became God. One of the astonishing koans of Christianity sounds as follows:

These things I have spoken to you, that my joy may be in you, and that your joy may be full. (John, 15:11)

The mystics of Medieval Christianity tried to gain this joy through prayer and *meditation*, eliciting the love for Christ in their hearts.

Existentialism, or to be more correct its branch called religious,<sup>14</sup> tried to restore the idea of a de-personalized God as an existential integrity, an idea completely lost during ages of dogmatic discords. Below we quote Burt (1965), who sets the rather gnostic Gospel according to St. John apart from the rest of them, i.e., the synoptic Gospels.

The Synoptic Gospels, in their conception of God and His relation to man, belong with the prophetic writings of the Old Testament. God, besides being the creator of all things, is for them essentially the moral governor of the universe and the good Father in relation to men as His children. John's insight was that this conception is far from adequate; rather, what Jesus had disclosed at the Last Supper is the clue to the true nature of God. And Jesus himself must have caught the essence of that vision, although its verbal expression, with him, probably remained in the form of parable and practical counsel. God is really a redeeming power, radiating everywhere in the universe and through all time the transforming love and sustaining hope that Jesus radiated in the limited temporal and geographical setting of his career. When this new insight was fully developed in the form of Christian doctrine it was no longer enough to think of Jesus as the promised Messiah. He must be the incarnation in human form of the infinite spirit of God, who has chosen to share the limitations and sufferings of men in order to awaken in them a responsive union with His boundless love. The celestial majesty and absolute self-suffi-

<sup>14</sup> Kierkegaard (1813-1855), a predecessor of contemporary religious existentialism, attempted to oppose to Hegelian dialectics another one, subjective and *qualitative*, regarding it as the basis for a human personality which "cannot be thought." Intimate, personal experience was regarded by Kierkegaard as unspeakable, inexpressible, indefinite, non-objectifiable, incalculable. Perhaps we, in this book, are trying to elaborate the problem formulated by Kierkegaard but not solved by him.

ciency that were essential in the earlier idea of God are now implicitly renounced; God becomes one with man in order that man may become one with God. . . . love and expanding awareness intrinsically belong together. . . . The central insight of religious existentialism is the search for authentic selfhood in a search for love and that this search provides the inclusive setting in which all experience and every way of thinking can be wisely understood. (p. 85-87)

From these words it follows quite obviously that, if knowledge is regarded as *an expansion of personality*, in the system of religious concepts love becomes a symbol of knowledge. This is true not only of Christianity, but also of Buddhism, in which meditation may be directed at the feeling of love for all that exists.

We are often told that knowledge received through this form of experience cannot be passed to others. According to many, the noncommunicability of this form of knowledge has shifted it to the background as compared to the communicable knowledge of positivist science.

Recently, I became acquainted with a very interesting paper by Negley (1954) discussing the lack of a basis for communication in ethics. But where does the main difficulty lie: in the absence of an adequate language or of common experience of the problem?

In this area an article called "The Secret Language of Identical Twins" (Corney, 1979) is illuminating:

. . . By the time they were six years old, Grace and Virginia Kennedy, apparently healthy and energetic identical twins, spoke to each other in a rapid-fire language that nobody else understood . . . Somehow, in the extended privacy of a world without regular visitors, the sisters had made a language of their own—a "twin language," which occurs fairly often in very young twins, but rarely in children so old and almost never to the exclusion of any other tongue. After two years of speech therapy at the San Diego Children's Hospital's Speech, Hearing and Neurosensory Center, the twins retain a few words of the private language. Pathologists haven't yet broken their entire secret code. The most maddening part of the Kennedy twins' story is that they may never be able to explain it either. There is no way to tell whether Ginny and Grace (now 8½) will ever remember the sound or the secrets of the private language—or whether they have any idea, right now, about why these large people fell over themselves just to hear twins converse. (p. 16)

Many examples could be cited when an unusual intimacy gives rise to a simple language comprehensible only for people who are intimate with each other. Recall, for example, the declaration of love between Levin and Kitty in *Anna Karenina*. Perhaps when we speak of important things in our everyday language, we understand each other to the degree that we



are inner “twins” to each other. The perpetual urge toward creating new languages is probably a ceaseless attempt to establish communication where a sufficient amount of common experience is lacking.

Above we considered manifestations of *experience* on a very large scale, from the elementary taste sensations to the state of Christian love. We feel that all such manifestations basically have a common human nature which would be alien to a computer.

Now let us consider science—specifically, mathematics, its extreme and the most interesting manifestation. Can we assert that mathematical knowledge is completely contained in the system of symbols and in logic which links them? Perhaps for the Great initiates of mathematics, for those who exist there as creative workers, mathematics is a state of experience.

For the rest, mathematics is represented only by mathematical texts, and their only concern is to make them look correct. However, a mathematician cannot remain satisfied with only this one concern: this became obvious after the appearance of Gödel’s theorem on incompleteness from which it follows that no strictly formalized concept of what a faultless mathematical proof is can be elaborated (Kleene, 1952). The history of mathematics demonstrates that many major discoveries entered mathematics on rather shaky grounds: e.g., this was true of mathematical analysis at the moment of its discovery. But there seem to exist people absolutely unable to experience mathematical texts—hence their sometimes aggressive rejection of such texts. How else can antimathematism be explained? The language of mathematics and its formal logical operations should be clear to anybody who is able to make use of our everyday language, maintaining the same logic.

From the above standpoint, the prospect of creating the bionic brain seems very attractive. On this point Stine (1979) said:

. . . To date, the computer’s power has been applied only to complex calculations or to simple, repetitive chores. That will not always be so. We will eventually build the first intelligence amplifier, a blend of computer and brain, optimizing both. We will link the brain and nervous system directly to the electronic computer, without the cumbersome keyboards, printers, and TV displays we use today. The computer will become not an antagonist but the ultimate extension of our reasoning, memory, and computational ability. We are closer to building an intelligence amplifier than most people realize. (p. 16)

We could add here that this attempt seems realistic and attractive. Humans will keep the faculty of knowledge as an experience, and the computer will be handling the tiresome and exhausting work of logically ordering our experience and storing in its “mind” the information to be

memorized. The culture of today has made us concentrate the major part of our energy on this computer-like activity.

If this hope is realized, this will, perhaps, bring us back to the completeness of meditation.

### **G. Creative Scientific Activity as Unconscious Meditation**

In this chapter we have tried to describe meditation in the entire manifold of its manifestations. However, it seems impossible to describe this manifold very exhaustively. All of us in our everyday life constantly resort to the unconscious constituent of our consciousness by using various techniques, often of a deeply private nature, determined by our individual peculiarities: genotype, upbringing, or spiritual maturity. As we have indicated above, by meditation proper we understand the techniques of resorting to the unconscious which have been specially elaborated and have become rather popular.

Creative scientific activity, even in its everyday manifestation, has features of unconscious meditation. Imagine a researcher who has failed to solve a problem. He stops experimentation and goes to the library. If he is lucky, the library is cosy and compact and readers themselves can choose any book on the shelves: Here he can rest from his usual environment, from the determined trend of thoughts, and from the forced dialogues with his colleagues. In the library the researcher may start looking through books which have nothing to do with his unsolved problem: this is a peculiar way to look into oneself. But this activity, which would seem absurd to an observer, is deeply meaningful: the problem leaves the waking, logically structured consciousness and the researcher begins to feel its unconscious aspects and its fuzziness. The familiar point of view disappears, and so the familiar phenomenon can be viewed now from a new angle. And then a sudden piece of luck: not quite knowing how, the researcher picks up a journal containing an article whose title allows him to see the problem from a new, fruitful angle. The following is an example borrowed from everyday experimentation.

Almost 50 years ago one of the authors of this chapter participated in work aimed at elaborating a photocathode sensitive to infrared light by sensitizing it with a complex dye. The formulation of the problem had been quite substantial: there had been a basic foreign publication, and it was known that the given dye increases the sensitivity of photoplates to infrared light; there also existed a theory based on complicated quantum-mechanical concepts. However, the official period for completion of the work was near its end, and no positive results had been obtained. With

each new experiment we seemed to be coming closer to the expected result, but failed again and again. Intensive experiments were going on every day, and our entire team stayed in the laboratory until late at night. Then somebody managed to make the problem “fuzzy” and look at it from a new angle: the unstable effect we were observing could be explained not by the dye but by water of crystallization which entered it as a component. After another experiment it became clear that no other effect was observed if the dye was sublimated in high vacuum. But why had none of us foreseen this beforehand? All the hypnotizing theoretical structures related to the complex molecule of the dye proved absolutely superfluous. Work on the problem was stopped immediately, and the research project was terminated.

At present, immense efforts are spent to elaborate systems of information retrieval to facilitate scientific and technological research. But every scientist who actually participates in research knows that the publications one needs, sometimes quite unexpected and stimulating, are come across as if by chance. One only has to tune one’s consciousness to their search. There is no rational explanation of this phenomenon within the existing scientific paradigm, and therefore systems of information retrieval have to be elaborated. One hears about the pertinence and relevance of a document, and so on. But what is the use of making a retrieval system void of a fuzzy viewpoint?

We are not going here to analyze from all aspects the process of scientific creativity. Note only the book by Hadamard (1949) in which the author emphasizes the fact that, in the creative work of mathematicians, in the process of insight, neither words of our everyday life nor mathematical symbols occur. The process takes place on the subconscious level, and on the conscious level its results are expressed by a system of symbols that enables us to communicate both with ourselves and with others.

An illustration of this phenomenon is provided by the words on creativity written by Sir William Rowan Hamilton:

*An undercurrent of thought was going on in my mind. . . . An electric circuit seemed to close; and a spark flashed forth, the herald (as I foresaw, immediately) of many long years to come of definitely directed thought. . . . (Hankins, 1980, p. 293)*

And elsewhere:

*I then and there felt the galvanic circuit of thought close. . . . I felt a problem to have been at that moment solved—an intellectual want relieved—which had haunted me for at least fifteen years before. (Hankins, 1980, p. 293)*

It is by Hamilton’s readiness to receive the impulses from the semantic cosmos that we explain both his adherence to triads and quaternions

mentioned above (p. 85) and the striking fact that his ideas on the optical-mechanical analogy were so much ahead of his time.<sup>15</sup>

It seems relevant to say here a few words concerning the fact that scientific-technological forecasts are of a mythological rather than a scientific nature. Moreover, in such situations science has often taken a negative, foreboding attitude. This is expressed in a compact and highly readable article by Eugene Garfield (1980). Garfield states that the first controlled, man-carrying, mechanical flight in history was made by Orville Wright on 17 December 1903, at 10:35 a.m., but almost five years went by before it was generally accepted that the Wright brothers had flown in their machine. And how could it be otherwise, remarks Garfield, when the most learned professors, including Simon Newcomb, had scientifically proved that powered flight was impossible?

The first negative article by Newcomb had appeared several weeks before the famous flight took place (22 October 1903). The name of Professor Newcomb was widely known: he was professor of mathematics and astronomy at Johns Hopkins University, founder and first president of the American Astronomical Society, vice president of the National Academy of Sciences, and director of the American Nautical Almanac Office. As a scientist, he still has not lost his significance: according to *Science Citation Index*, in the 16-year period from 1961 to 1976, he was cited 183 times.

Garfield also indicates that as early as in the thirteenth century Roger Bacon, hardly proceeding from vague scientific ideas, foresaw the possibility of a man-carrying mechanical flight:

It is possible to make engines for flying, a man sitting in the midst thereof, by turning only about an instrument, which moves artificial wings made to beat the air, much after the fashion of a bird's flight. (Gibbs-Smith, 1974) [we quote from Garfield (1980)]

It is of interest that Bosch, a fifteenth century artist, saw by his inner sight and painted an almost modern plane, a tank, and a submarine (see Figures 11.1, 11.2, and 11.3). In Figure 11.1 the spectator is struck by an antenna going between the head and the tail of the flying bird and smoke as if from an engine inside the bird. In Figure 11.2 one can clearly see a tank turret on the back of an animal moving with the help of wheels, and in Figure 11.3 there appears something that looks like a submarine. All these are only visions, but how could they appear so many centuries

<sup>15</sup> One of the founders of quantum mechanics, E. Schrödinger, in 1926 emphasized the significance, for the new comprehension of the microworld, of Hamilton's discovery that the laws of geometrical optics and those governing the motion of particles could be expressed in the same mathematical form (Hankins, 1980). It is noteworthy that Hamilton was also a poet (though his style was abstract and ideal); he "insisted that science and poetry were the two clearest expressions of truth" (Hankins, 1980, p. 386).

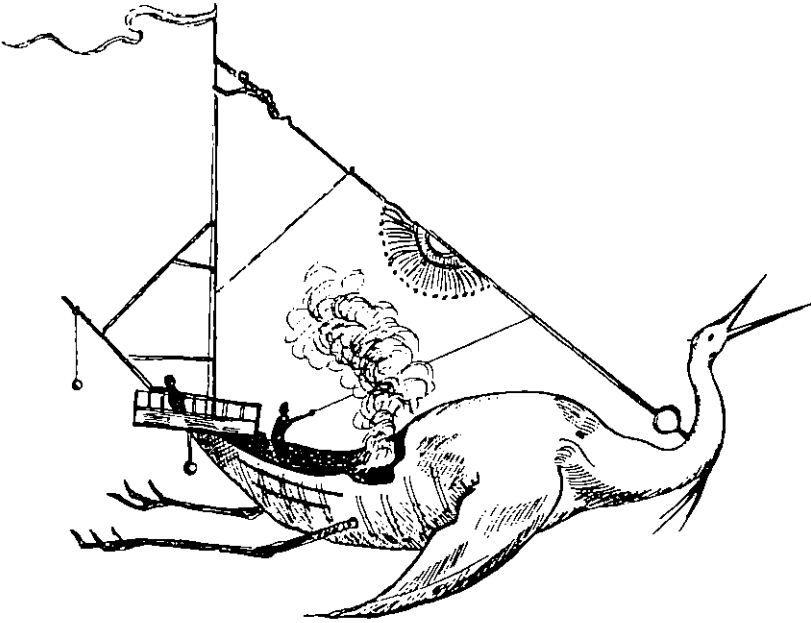


FIGURE 11.1

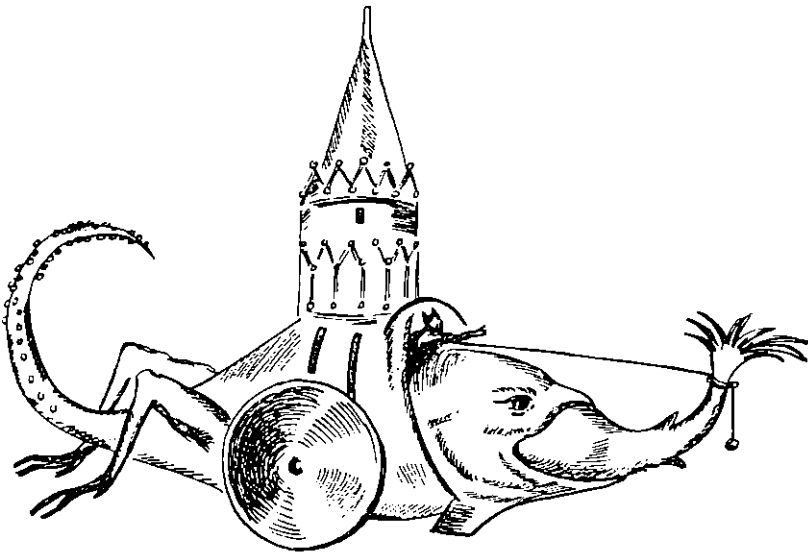


FIGURE 11.2

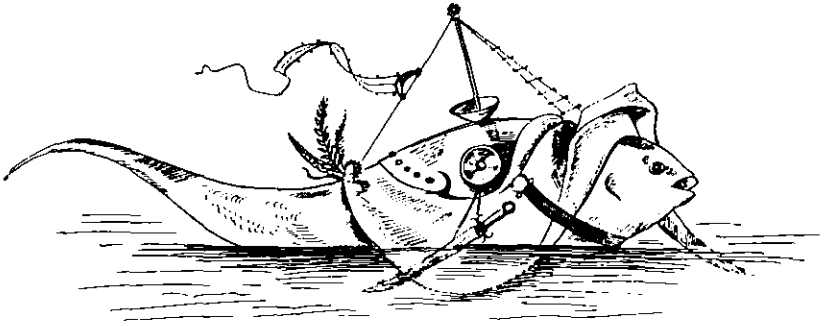


FIGURE 11.3

before their time, before technology enabled their appearance? Perhaps fantasy not so much goes before actual scientific–technological progress as directs it.

It would be naive to present a creative researcher as a receptor tuned to receive what we call insight. The unconscious is not in any way a warehouse which stores the ready-made pre-conceptions of scientific theories. What has been scooped from the unconscious must be comprehended, i.e., presented in a form acceptable to the contemporary culture. The new must be prepared by the old; at the same time *it should not logically follow from the old, or it will not be new*. But if we look carefully into the new, we shall always see the old within it. It has often been indicated that all the new significant philosophical theories always converge to something known and comprehended long ago. The same is true of science: in its seemingly most unexpected manifestations we always recognize ancient ideas. Of great interest in this respect are the works published by the American physicist Capra (1975, 1976), who tried to trace the origin of some contemporary physical ideas in the philosophy of the Ancient East. In one of our papers (Nalimov and Barinova, 1974), we attempted to trace the links between cybernetic ideas and Ancient Indian philosophy. But the new is always created anew: it is related to the old only through the unconscious, which stores what had been eternally inherent in humans.

In the process of creativity, the major part seems to be played by the formulation of the problem. By saying that a problem is formulated, we mean that the region of the semantic space is chosen where the answer is to be sought. The problem should be essentially new, sudden, but we look for its answer in the past which exists within ourselves in a hidden, unrevealed state.

Again it would seem relevant to resort here to Bayes's theorem. The prior distribution function of probabilities  $p(\mu)$  determines the value

concepts coming from the past of the culture. The preference function  $p(y|\mu)$  is a *question* posed with respect to the problem  $y$  related to the semantics  $m$ . Reducing the past along the preference function, we receive the new system of value concepts in which creativity is actualized. In this model insight will be represented by the *choice of the preference function*. It is possible to assume that the choice is made by way of emergence of an image coming from the semantic space. Here the unconscious reveals itself. We may also believe, as we already said, that as the idea of air flights matured it was affected by images of the type depicted by Bosch. Probably all the facts in the prehistory of air flights so vividly described by Garfield (1980) had been thus stimulated. The images of the unconscious are far from always imprinted and memorized by human consciousness. We are prone to believe this to be similar to dreams. When we wake up, we can instantly forget our dream without having time to transfer it through our consciousness, but we still have the feeling that we have had a very significant dream, and we behave and make decisions prompted by our dream. Recall the proverb "An hour in the morning is worth two in the evening."

Proceeding from our model, this proverb can be interpreted as follows: we dream an image which allows us to *reconstruct the distribution function of probabilities for the value concepts* so that we are now able to make a decision which earlier we could not make. The reconstruction of the distribution function takes place at the unconscious level: the conscious activities start after this reconstruction is completed. It may be that the unconscious image turns out to be connected with our conscious activities through a new *preference function*  $p(y|\mu)$ , determining the new vision of the problem  $m$  or perhaps giving rise to a new outlook. The interpretation of dreams generally takes place at the unconscious level.

It was understood long ago that the essentially new features of our outlook also require a new language:

And no one puts new wine into old wineskins; if he does, the wine will burst the skins, and the wine is lost, and so are the skins; but new wine is for fresh skins. (Mark, 2:22)

The radical reconstruction of the value orientation in the semantic space can probably give an impetus toward the evolution of a new language.

It is natural to ask to what extent directed meditation can increase the creative potential of a scientist. The answer to this question is not easy to give. Each creative scientist is sure to have discovered his or her own deeply personal and usually not consciously realized ways of entering the state of meditation. We would like to believe that regular and methodologically elaborated procedures may increase spontaneous creativity.

This is based on our own experience: the part of this section on the model of creativity, as well as what was written about Time in Chapter 7, has emerged as a result of participating in intensive sessions of collective meditation on Time. But what is written here is not in any way a decoding of the images accompanying the meditation sessions. To our mind, the images affected us otherwise: through the mechanism of revelation of the unconscious which we tried to describe through a system of Bayesian concepts.

The above question may be reformulated as follows: Will directed and systematic meditation increase the creative potential only of those who are preparing themselves for scientific research? We have no answer to this and cannot obtain one without serious and extended research. We emphasize here that a creative researcher is not only a man receptive to the symbols of the semantic fields but also a personality with a powerful intellect.

At this point we would like to pose a question: What is knowledge? Imagine that you enter a big library with long shelves of books in it. Imagine also that by special training you have achieved the skill that allows you to pump everything written there into your memory. Will you actually possess scientific knowledge about such pumping?

If we have to convey our scientific knowledge to the inhabitants of other worlds, what is it better to send: the encyclopedia or the entire lot of books and journals? And if we do the latter, shall we actually convey scientific knowledge? Can scientific knowledge be handed over to a computer even if the memory restriction is removed?

We are inclined to believe that our scientific knowledge is not contained in our books. Rather, they are means of making it possible. Certainly, not all scientists are the carriers of scientific knowledge. One of the present authors for a dozen years worked side by side with a mathematician to whom the entire range of mathematics was transparent. It was amazing to watch him at seminars when he effortlessly understood reports often presented in a most incomprehensible form. Sometimes he had failures and got irritated over some paper, but a few days later he would come and say: "What an interesting problem! I have already started to elaborate it." He is a mathematician by nature, and the totality of mathematics, not merely a single branch of it, is open for him. I had an impression that I was watching the Great Adept of mathematics. He was surrounded by the Initiated of another, lower rank. The majority of scientists do not contribute to innovations in science; scientific knowledge is closed for them. [Recall that according to Wiener 95% of mathematicians are of this type (see Nalimov, 1981b).] Their knowledge is to a great extent only that which is contained in books. But without them, as well as without books, science cannot exist.



Here, of course, we cannot answer the question of how the process of scientific creativity goes on. The only thing we have managed to do is to dissect it into subproblems and to emphasize the role of spontaneously occurring meditation (i.e., meditation of which the person is unaware). We would like to believe that this opens up the way to experimental research.

## H. Meditation as a Journey Inside Oneself

So, what is *meditation*? In the broadest meaning of the term, this is a directed journey into the depths of one's consciousness, the discovery of oneself. Like any other journey, it is sure to enrich a person and expand his personality. But on this road, as on any other, one may lose the way and encounter fatal dangers.

If we proceed from the conception of human individuality developed in Chapter 1, then the journey inside oneself will be interpreted as a reconstruction of the distribution function of probabilities determining the person's individuality. Above we said that the field of attributes on which this function is constructed contained the entire human ethnogenetic and phylogenetic past, as well as the entire potential future, but the personal consciousness held all this in an attenuated form, with small probabilities of realization. During a journey inside oneself, a person may so radically reconstruct the distribution function determining his personality that he will feel as if he is either in the remote past or in the distant future of mankind. The journey begins on returning to the past, and so a person finds himself in the astral world.<sup>16</sup> Interaction with this world is experienced as a reality. Voluminous literature is devoted to the description of astral-demonic visions, including here the experience of Christian ascetics.

When in the process of the inner journey the distribution functions of

<sup>16</sup> The concept of the astral world widely used in the literature remains extremely ambiguous. It is usually related to lower manifestations of the self. In *our* terms, such manifestations are linked with the remote phylogenetic past of human consciousness. They are easily projected outside, taking the shape of surrealistic creatures as, for example, in the paintings by Bosch. It is also common in the literature to speak of an astral body as a certain, clearly *singled out* part of consciousness. In contemporary culture this singling out seems to occur only in certain situations of specific psychic functioning. Such a situation may, for example, take place in a monastic solitude. Leaving the society, severe asceticism and the tendency to reconstruct one's Ego in accordance with an ideal pattern may lead to the splitting of a personality. The part of consciousness not fitting to the ideal image is reflected outside. The praying ascetic identifies himself, on the one hand, with the powers of light; he may even feel he is conversing with Christ. On the other hand, he may be tempted by the demonic power. The word itself "temptation" testifies to the irrepressible urge to identify oneself with the singled-out double which we call the astral body. (We speak in detail about psychological doubles in Chapters 16 and 18, where we introduce the concept of multidimensional psychological space).

probabilities that determine human personality are reconstructed, a person may identify himself with other, higher essences. What is actually happening is, perhaps, the person's encounter with himself in his other potentially possible incarnation.<sup>17</sup> The person does not recognize himself and projects the unrecognized onto the external world; he identifies the projected with another, higher essence and obeys it, or at least unconditionally believes it. This gives rise to many delusions. We would like here to quote Rogers's *Inner Worlds of Meditation* (1976b).

The process of meditation can be a useful tool in discovering yourself. (p. 13)

It's not unusual for people to meditate twenty or thirty years and never get further than the astral consciousness. They may develop a communication with their own inner guide, which could be part of a past incarnation process. They may think that they have reached an inner Master, but the Master forms do not work on the astral realm of Light. For the most part, what you experience in the astral realm is *you* working in those areas—*you* working through many of your own illusions, hallucinations, and fantasies. (p. 16-17)

When you go into the emotional realm, because earth is a planet of negativity, you may experience some turmoil. (p. 19)

There is another level within you, even beyond the fantastic state of intellect, and that is the soul. In Soul, you are the It of Itself. You are eternal. You are light everlasting. You become and are and recognize that you are the Alpha and the Omega, the Sarmad, the God of creation. But also in that realization, you only know that you are these things on the realms *within yourself*. Many people who have traversed this have said that they were God, not realizing that they were only within the realms of their own consciousness. When you are in your inner universe, you are working through patterns by yourself. (p. 24)

In our terms, all said above may be reinterpreted as a ceaseless reconstruction of the distribution function of probabilities determining a person's individuality. During a journey inside himself, a person carries out an intensive experiment over himself: he recognizes himself in the entire potential manifold, and in the karmic or even generally human, phylogenetic past. The keen interest of modern Western man in meditation is easily understandable: the culture of our time has squeezed human individuality, and the distribution function determining personality is becoming needle-shaped. Meditation is a technique that allows people to loosen this unbearably narrow structure, to make it fuzzy. Its attractiveness lies in its property of enabling the traveller easily and painlessly to return to his former Ego, and at the same time to retain the newly gained

<sup>17</sup> We discuss in detail the idea of reincarnation existing from ancient times in Chapter 16.

experience which can also be comprehended at the familiar level of waking consciousness. It opens up the possibility of conscious reconstruction of oneself. This has much in common with the ideas of German existentialism on the dynamics of human nature; a man is viewed as *Dasein*—existing where he chooses to exist.

However, everything said above is true only of the reconstruction of the distribution function over the part of the space of psychological attributes which is familiar to the person: experienced either in this life, or in his past, or in the human past. In Chapter 1, we said that the distribution function embraced the whole limitless potential future of the person, inherent in our Ego with negligibly small probabilities. Description of the journey to this area of the semantic space becomes extremely difficult, as does the journey itself. In this journey it is as if a person leaves his own boundaries, though in fact there are no boundaries: human Ego contains the entire reality of existence with some very small weights (probabilities). The ancient author Hermes Trismegistes expressed this in the following words: “The whole macrocosm is reflected in the man as a microcosm.” The journey into one’s yet unexperienced future requires help. Here is how Rogers (1976*b*) tries to describe this:

You can go back into these realms by yourself whenever you want. You can do this sometimes by using a mantra or through a form of initiation. But if you are going to traverse the high realms of Light—the outer realms of Light—and go into the ocean of love and mercy (which is reflected in the inner consciousness), you have to know the keys to get away from the body and into those outer realms.

When you do this, you may find yourself traveling with lots of people. And that is one way to know whether you are traveling in your own inner realms or in the outer realms. When you’re in the outer realms, the Mystical Traveler will be with you, and there will be other people present, also. When you’re on your own inner realms, you’re there by yourself, for the most part. (p. 25)

The work of the Mystical Traveler usually is not to work in your inner worlds. His work is to work with you in the outer worlds, the invisible worlds of Spirit, and to get you into a oneness with God. To reach that oneness with God, you must get beyond the mind which says, “Oh, it’s all a bunch of baloney . . . and it’s just not for me.” You must get beyond the emotions that say, “That hurts too much; I can’t stand that.” You must get beyond the imagination that throws up images that distract and delay. As long as those things work for you, that’s fine. But when you come to the point where they’re not doing it for you, then—and this is a plea as well as a challenge—sit down with yourself and maybe for the first time in your existence of all these lifetimes, find out what is going on with you. Get down to the basics. (p. 26–27)

The last lines have much in common with the gnostic idea that a man is part of the world's wholeness. In our terms, the entrance into another reality is but a shift of the center of the distribution function toward the yet unexperienced state of consciousness. The degree of shifting may differ: perhaps the psychologists of ancient times, introducing the celestial hierarchy—angels, archangels, seraphim, cherubs, etc.—wished to convey a similar idea, but expressed it in a mythological language.

We would also like to remind the reader that the European religious-mythological consciousness has a legend of Atlantis as a superhuman race. This is probably a concept of the potential future of humanity projected in the past. European mysticism up to recent times preserved a dream of the future superhuman race (see, e.g., the novel by Lytton, 1972). In the Nazi madness this dream turned into a horrible grimace. The Oriental concept of *nirvana* also seems to reflect a dream of the complete merging with the world's wholeness, when the distribution function becomes equiprobable over the entire field of the semantic universe. Entrance to nirvana signifies the erasure of the personality, its death. However, the state of nirvana may not be perceived as dying if it is viewed as merging with *the fullness of existence*, as an entrance to the *ultimate* reality for which a man proves to have been prepared during numerous journeys in the worlds of his soul. Then it is not death, but recognition of one's own self in the fullness of existence.

Thus, we can express the ancient knowledge of man in a new language, that of the number which reveals the probabilistically weighted vision of the world. Does a new attempt to describe things known from time immemorial sound more attractive?

## **I. About Those Lost in the Depths of Their Consciousness**

From the viewpoint of our conception of a probabilistically fuzzy nature of human individuality, no distinct demarcation line can be drawn between mentally sane and insane people. We do not have in mind only the so-called cases of borderline patients whose mode of the probability distribution function determining human individuality has shifted not very far from the region containing the modes of people considered sane, but also those whose distribution function is such that the bulk of the probability density is shifted very far from this region. In this case patients are characterized by a sharp display of the part of consciousness which, in its weak and hidden form, is inherent in all people. People can get into these states in deep meditation or in dreams; they identify themselves with these states, but the way back, to a common state of consciousness, is always open for them. In other words, insane people are

those lost in the depths of their soul. Some of them turn out to be carriers of another consciousness whose manifestations are impossible within our culture, and this accounts for their tragedy and its ugliness. Here is what Elsa First (1975), a British psychotherapist, wrote on this point:

The more we can look at madness—as people did in Shakespeare's time—as a sign that something is wrong in the state of Denmark, the more we will be able to respect the mad. (p. 61)

To support this idea, First quotes Laing (1967):

There are an infinite number of worlds the mind can construct . . . some are scary, some little understood, some might actually be incomprehensible. Some of them are certainly maladaptive and dysfunctional in our society . . . The cluster of acceptable forms of symbolization, meaning-assignment varies through history, in different social circumstances. What is outside the acceptable cluster may, under special conditions of role allocation, be accepted as genius. (p. 62)

And further she writes:

Laing's obstinate elusiveness about "madness," his refusal to define it, comes down to this: We should not look at any mental expression as "sick" in itself. We can only say that person had had certain experiences, valid for himself, that he was unable to interpret and make coherent in a way that communicated itself acceptably to his fellows. (p. 62)

No wonder many foreign psychiatrists view madness as a social disease rather than a medical disease.

From time to time one comes across Western psychological papers in which certain mental diseases are interpreted as an awkward wandering through the depths of one's consciousness. For example, Bregman (1979) drew attention to the book by Hennell (1967), first published in 1938, who described his psychosis, stay at a hospital, and recovery. Retrospectively, after his recovery, he said that his illness related to the sensations of cosmogonic fantasies, including the feeling of a contact with another reality, and this had a flavor of the Truth. Some of the authors who have commented on Hennell's book (Laing, 1967; Assagioli, 1971) are ready to acknowledge that another reality he felt has an ontological status; they also say that in his traveling through the depths of his consciousness Hennell needed a guide rather than a physician; otherwise, he would not have mixed up the transpersonal and the personal and would not have described literally what had to be described mythologically. We would like to add here that nobody seems to regard "The Revelation to John" (Apocalypse) as exactly madness because of its mythological nature,

though the question of including it in the Canon, where, by the way, it looks rather exotic, had once been long disputed. It would also be relevant to draw the reader's attention to the interest many psychiatrists show in Swedenborg (see Dusen, 1974). Emanuel Swedenborg (1688–1772) was a uniquely versatile and gifted person: a scholar who published works in seventeen branches of knowledge, a musician, a member of Parliament, a polyglot who spoke nine languages fluently, and at the same time a mystic who regularly traveled in the depths of his consciousness. His spiritual research is presented in many-volumed editions, often hardly comprehensible. In that period, these works of his gave rise to unfavorable criticism, including the accusation of heresy. Dusen (1974), a clinical psychologist, was surprised by the similarity between his own observations and those of Swedenborg:

It seems remarkable to me that, over two centuries of time, men of very different cultures working under entirely different circumstances on quite different people could come to such similar findings. (p. 87)

Dusen finishes his article with the following words:

It is curious to reflect that, as Swedenborg has indicated, our lives may be the little free space at the confluence of giant higher and lower spiritual hierarchies. It may well be that this confluence is normal and only seems abnormal, as in hallucinations, when we become aware of being met by these forces. There is some kind of lesson in this—man freely poised between good and evil, under the influence of cosmic forces he usually doesn't know exist. Man, thinking he chooses, may be the resultant of other forces. (p. 87)

What is said above may be interpreted in a much softer form. To our mind, it is even more elegant to say that what had once been referred to higher and lower hierarchies is actually inherent in any person and in a normal state is merely unrevealed or revealed only weakly.

This helps us to understand the roots of the recently emerged movement in the West directed at protecting mentally insane people. It is also natural that psychiatrists, enriched by the experience of the extreme manifestations of human psychology, start to publish philosophical works. The most vivid examples are Jung and Jaspers. Although we know the latter primarily as an existential philosopher, we must not forget that he was also a founder of a new psychotherapeutic trend, the so-called existentialist psychotherapy whose burden is the certainty that a physician must first of all himself enter the unusual state of mind of his patient. Certain papers of the Russian psychiatrist Gannushkin<sup>11</sup> are also of a

<sup>11</sup> P. B. Gannushkin (1875–1932) was the founder of "minor psychiatry," the teaching of borderline states between sane and insane people.

philosophical flavor, though it would be correct to agree with Appel (1959) that it was existentialism which linked together psychiatry, religion, and philosophy.

We would also like to emphasize here the following phenomenon. The work of a psychiatrist seems sometimes to open up for him an entrance to the unconscious. This was much dwelt on by Jung. Below we quote an episode from the case of a patient who committed suicide (Jung, 1965).

At about two o'clock—I must have just fallen asleep—I awoke with a start, and had the feeling that someone had come into the room; I even had the impression that the door had been hastily opened. I instantly turned on the light, but there was nothing. Someone might have mistaken the door, I thought, and I looked into the corridor. But it was still as death. "Odd," I thought, "someone did come into the room!" Then I tried to recall exactly what had happened, and it occurred to me that I had been awakened by a feeling of dull pain, as though something had struck my forehead and then the back of my skull. The following day I received a telegram saying that my patient had committed suicide. He had shot himself. Later, I learned that the bullet had come to rest in the back wall of the skull. (p. 137-138)

Jung himself interprets this event as an entrance into the collective unconscious for which time and space are relative.

We cannot here analyze in detail all the problems mentioned earlier despite their significance for the basic theme of our book: they can be considered seriously only by a professional psychiatrist.

We are going to confine ourselves to a single remark. There was once a keen interest in the correlation between genius and psychic disturbances (e.g., recall the famous Italian psychiatrist Lombroso,<sup>19</sup> who was very popular at the end of the nineteenth century and the beginning of the twentieth), but now it seems that this interest has vanished. However, we feel it to be essential to note that certain manifestations of psychic diseases can be interpreted as a result of the entrance to the semantic fields of the unconscious becoming wider than is allowed by the existing culture. What is received through this entrance turns out to be too heavy a burden for the person involved. His obsessive and at the same time awkward attempts to express what he has learned by his inadequate linguistic means look morbid. Psychiatrists believe the most dangerous symptom of schizophrenia to be not image-bearing delirium but paranoid conceptualization.

All of us who work in science constantly come across schizoid conceptualizers. Their modes of behavior vary greatly: some are persistent, even

<sup>19</sup> Cesare Lombroso (1835-1909) was an Italian forensic psychiatrist and anthropologist who founded the sociological theory of criminality in which an essential role is attached to heredity.

bold, and others are modest and humble. But all of them have one common feature: they ardently want *to be heard*, but nobody hears them. Moreover, they cannot be heard, for their structures are dull and look like a parody of science. But can one actually be sure they have nothing to say? Perhaps the reason for their tragedy is their inability to express themselves, their lack of sufficient intellectual power to create a language in which a new idea could be presented convincingly. Is it not this acutely felt impotence which makes them madly persistent?

Science has no criterion which would allow us to separate scientific conceptions proper from schizoid constructions. If the new looks elegant, if it strikes us, it may on that ground acquire creative power and, therefore, a scientific status. The inner progress of science seems to depend on the fact that, during a scientific evolution, new possibilities are revealed for the emergence of hypotheses which could be called mad since they move farther and farther from the familiar ideas we are prone to call common sense. One of the distinctive features of a true scientist is that he not only can be heard, but also can hear others. A schizoid conceptualizer not only cannot be heard, but cannot hear others either.

Schizoid structures are especially often observed in conceptualizers professionally unprepared for this kind of activity. Their initial knowledge is usually at the level of popular journals, but they do not seem to be in the least embarrassed by the fact that they do not actually comprehend scientific concepts whose sense is fully revealed only through a process of profound study. By the way, this constitutes also the negative side of popularization which can easily turn into profanation. Sometimes one cannot help thinking it would be better if science were kept more esoteric.

Of special interest are conceptualizations of a borderline nature—those which can be heard by only a small circle of people. Here attention is drawn to an outstanding personality, Helena Blavatsky (1831–1891), the founder of the Theosophical Order. As far as we can judge now, she was an unusually gifted woman, very attractive for her versatility. Her consciousness was open for direct contact with the Semantic Universe. However, her basic voluminous work, *The Secret Doctrine* (for its shortened version, see Blavatsky, 1966), produces a rather odd impression. This is a specific revelation claiming to expose the truth lying at the base of all the great religions of the world. This new wisdom is presented in the guise of a scientific language. It looks like a re-exposition of scientific cosmogony, geology, and anthropology based on knowledge alien to science. This impression becomes especially vivid when, as in geology and palaeontology, we come across accurate indications of time intervals for the periods of past history. Blavatsky seems to have followed very carefully the writings of nineteenth-century scientists: Faraday, Maxwell,



Crookes, Tyndall, Huxley, Darwin, and many lesser figures. She directed her sharpest polemics against positivism and the Jesuits, but remained imprisoned by the then omnipotent scientific outlook. Knowledge obtained as pure insight had to be presented in the mode of scientific theories. This is the tragedy of such "theories": everything would have been perceived otherwise if what Blavatsky had learned had been presented by symbols—images arbitrarily polysemantic and void of unjustified concreteness—in the form which ancient thinkers preferred to all others. At the same time a considerable portion of her theories about the Gnostics<sup>20</sup> (of an esoteric flavor) seem to have been supported by the recent discovery of the Dead Sea Scrolls and other archaeological items. The structures of Blavatsky are less mythological than those of modern physics and cosmogony. We feel that such pseudoscientific work must have antagonized both positivist scientists and spiritually disposed people. However, we know that Blavatsky had many followers; they exist even now. It is noteworthy that there has been formed on the basis of her work a peculiar sect among intellectuals. It is also of interest that people like Blavatsky, though lacking her power, appear today as well. To our mind, the phenomenon of Blavatsky must be of great interest to a psychologist. A new microreligion has sprung into being in front of our eyes, a religion based on deep conceptualization, which meets some of the demands of our time when the belief in scientific positivism is reaching its summit. It is also significant that Blavatsky, in her versatile and enormously intensive activities, in an exaggerated form made use of those specific traits of human consciousness which open up the possibility for scientific creativity.

Almost everything said about Blavatsky is true of Rudolf Steiner, the founder of anthroposophy. Being an ardent believer in the existence of spiritual laws, he made an attempt to create a science of the spiritual World. In his all-embracing works one feels the paradigm of positivism even more than in Blavatsky's, though at the same time Steiner thought that everything he said was nothing more than an interpretation of what he had heard from the archangel Michael, the leader of humanity (he believed that, being initiated, he had acquired a special right to such an interpretation). Here we again come across the same phenomenon: projecting oneself outside and the perception of oneself as a hierarchically higher creature.

Two other works can be mentioned here. Eliade (1976) remarks that the erudite and devastating critique of quasi-religious and occult teach-

<sup>20</sup> We draw the reader's attention to Blavatsky's first book (Blavatsky, 1877), which seems to be of greatest interest to contemporary readers since it deals with the origin of Christianity, including the teaching of the Gnostics.

ings of late has come not from scienticism but from the depths of spiritual thought itself; the works by Guènon, including his critical book (Guènon, 1921), acquired broad popularity after his death (Guènon was close to both Western and Eastern esoterism).

We would also like to say a few words on the phenomenon of sectarianism, which is extremely interesting not only for a sociologist but also for a psychologist. It may be regarded as a spontaneous experiment that enables us to observe the unusual aspects of human consciousness. Sects unite people who, because of certain peculiarities of their psychological constitution, find themselves outside modern culture. They may deviate from the axis of culture to both sides: to all-embracing theorizing, on the one hand, and to a specifically stimulated entrance to the unconscious, on the other hand. The latter trend may be interpreted as a regression to the phylogenetic past [Pentecostals (for details, see Samarin, 1972), Khlysts, Stundists, etc.], and must be of special interest for a psychologist studying the unconscious. But the former trend is also interesting. Once I had a chance to speak with a sectarian, a molokanin (one of the Russian sects), who, though an uneducated man, was a brilliant interpreter of the Bible. He started the conversation with a request that he be asked a question, and the question was immediately answered by a key phrase from the Bible. Then he began to interpret the phrase. It was done with great elegance: for each word from the key phrase, he would find all other phrases in which the same word occurred. (This can be easily done since the Bible is often provided with an index for word occurrences throughout the whole Bible.) As a result the listener would be presented with the semantic field of the phrase, which embraced the entire manifold of the texts of such a heterogeneous source as the Bible. This allowed one to conceptually comprehend the Bible, a profoundly mythological source. This technique seemed to me very instructive, and I thought it would be nice if we used it while studying the system of ideas of a thinker.

If we acknowledge as legitimate the assertion that society is heterogeneous by nature, then the protection of such sectarianism will mean the protection of the health of society.

## **J. Taxonomy of Consciousness**

*The part becomes no less than the whole, and the whole—  
no bigger than the part.*

RICHARD DE ST.-VICTOR

Now we would like to make a few remarks of a metalinguistic character on the use of the language of probabilistic concepts. The traditional

way of describing the integral, holistic vision of the world in the language of discrete notions always looks awkward. For example, Smuts (1936) says that what we see in nature is an integrity presented hierarchically: each integral piece is a part of a larger integral piece. In the language of probabilistic notions, the consciousness of each person includes the entire semantic universe in all its boundlessness: human personality, its alienation from the world, is partly realized as determined by the selective distribution function constructed over the whole field of the semantic universe. The indistinct features obviously coexist in the darkened state of consciousness, and no clear-cut boundaries can be observed here. *All* that exists is not part of the whole, but *the whole itself*, each of its manifestations being organized by measure expressed through *number*.

In Chapter 1 we spoke of the difficulties in biology stemming from the discreteness of taxonomy. We come across the same difficulties when we start to classify the levels of human consciousness, though these difficulties have been partly overcome by the arbitrary fuzziness of the taxon boundaries which is absent in traditional biology in the explicit form.

Above we spoke of the "celestial hierarchy" as a kind of classification of potential states of consciousness yet unachieved by people: its mythological character testifies to its fuzziness. The gnostics in their epoch suggested classifying people according to the triple system of consciousness: according to spiritual type, *pneumatics*—the possessors of gnosis; according to psychic type, in which the soul of man void of truly spiritual gnosis remains submerged in the illusions of everyday life, with its adherence to emotions and forms of behavior forced by society; and according to flesh-sensual type, *hylics*. Such a classification can hardly claim to be rigorous. The well-known Jungian classification of psychological types<sup>21</sup> (Jung, 1971), an interesting classification by Holland (1973) with a pragmatic tendency, and the classification of levels of the unconscious by Wilber (1977) in no way resemble taxonomy in biology, though the latter, as was mentioned in Chapter 1, is implicitly fuzzy and probabilistic. However, Wilber's classification is of interest. He selects the following four forms of the dynamic manifestations of the unconscious:

*Archetypic* unconscious determined phylogenetically.

The *Submergent* Unconscious which was once conscious, in the lifetime of the individual, but is now screened out of awareness.

The *Embedded* Unconscious: the part of the unconscious super-ego embedded into consciousness.

<sup>21</sup> Note that from the point of view of a psychologist the taxonomy of horoscopes might also present a certain interest. Horoscopes elegantly delineate types of people classified according to their spontaneous behavior, which manifests itself independently of the goal set and actual circumstances. Strange as it may seem, spontaneous behavior may often be related to animal behavior: that of a tiger or a dog. Perhaps this accounts for the concept of the astral aspects of the human self connecting man with his phylogenetic past.

The *Emergent Unconscious*—the subtle structures of the unconscious emerging as sudden explosions.

Also noteworthy is a broader classification suggested by Wilber and Meadow (1979):

1. The gross realm: The physical body and all lower levels of consciousness including the psychoanalytic Ego and simple sensations and perceptions.
2. The astral realm: Out-of-the-body experiences and certain occult knowledge.
3. The psychic realm: psi phenomena such as ESP, clairvoyance, and precognition.
4. The subtle realm: Higher symbolic visions, light, higher presences, and intense but soothing vibrations and bliss.
5. The lower causal realm: Beginning of true transcendence and the undermining of subject-object dualism.
6. The higher causal realm: Transcendence of all manifest realms.
7. The ultimate: Absolute identity with the Many and the One. (p. 68)

This classification, attractive for its resorting to human depths, strikes the reader by the fact that the way to the *Absolute Integrity* passes through six distinctly delineated spheres separated from one another. In terms of a probabilistic vision of the world, this rhetorical awkwardness disappears immediately: each of the spheres proves to be a selective facet of the Integral. Passage to the Ultimate state signifies merely the removal of selectivity in the distribution function of probabilities given on the semantic continuum.

One should keep in mind that the taxonomic division of the continuum is, strictly speaking, impossible even if its occurrence is not related to selectivity given by the distribution function. This assertion follows from purely mathematical reasoning. It would be relevant here to recall the Dedekind axiom of continuity. Roughly speaking, its corollary is that dividing the segment *AB* into two classes, we have to deal with the limit point *C* (the point of Dedekind section) which may belong both to the first class and to the second one. Here lies the principal difficulty of taxonomy: a limit point situated between the two simplest, semantically one-dimensional taxons may belong to both of them. This gives rise to endless discussions. Wishing to avoid them, we shall have to change slightly the algorithm of division, but we shall still obtain new limit points. The precision of our judgments will unavoidably be permanently eroded.

It would seem more rational to exploit the models given by a fuzzy set, i.e., by a set over which a weighting function is constructed that determines the degree to which the segments of the set belong to the problem

under study. What in the traditional language we are inclined to perceive as a dichotomous pair, in the language of probabilistic notions can be described as an attempt to divide unambiguously into two parts a set of elementary events over which a more or less distinct bimodal distribution function is constructed. This problem, insoluble in such a formulation, is further aggravated by the increasing informational entropy of concepts and therefore by smoothed bimodality. In other words, the bimodal (double-apexed) function will tend to turn into a smooth rectangular distribution, and therefore the possibility of representing two subsets of a fuzzy set as opposed dichotomously will disappear.

If we are ready to acknowledge (at least metaphorically) the nature of consciousness as continuous, we shall have to reject the language of taxonomic description.

Within our system of concepts, constructing the hierarchical classification which must always be based on a distinct taxonomy is no longer necessary. The hierarchically arranged vision of the world is replaced within our system by its vision through the metric arrangement of the semantic space over which the probabilistic distribution function is constructed. The advantage of such an approach lies in the possibility of using as a base concepts with weakened distinctness; perhaps this is the only system of concepts which would enable us to speak of human consciousness without irritating the interlocutor by the arbitrary taxonomic division of the Whole.

An urge to see the integrity of the world through its hierarchical structuring seems always to have suppressed the human idea of freedom and humiliated human dignity. It is relevant to quote Eckhart (1941) once more:

The soul cannot bear to have anything above it. I believe that it cannot bear to have even God above it. If he is not in the soul, and the soul is not as good as he, it can never be at ease. (p. 163)

## **K. Can the Unconscious Be Socially Controlled?**

The real and the unreal are amazingly intertwined in our life. Whereas there exist numerous institutions that control the real, i.e., the conscious (namely, education, law, social structures, etc.), we can hardly name any institutions formed to control or, perhaps more accurately, to harmonize the unreal, i.e., the unconscious.

Historically, the harmonizing of the unreal in its interaction with the real was achieved through religion. Religious rites, no matter how diverse they were, were always aimed at relaxation and concentration which allowed one to tear himself away from everyday concerns and go deep

inside his own Self. Then symbols started to act, and the reality of the non-real was revealed through them; and this made possible the contact between the non-real and the reality of everyday life. We do not know whether it was done well or badly, and such an estimation can hardly be made. Another thing is important: it would be of interest to consider the historical process, as well as the contemporary state of things, from a new angle which is revealed through the wish to see what is happening in the interaction of the real and the unreal. But who can do this?

Jung seems to be the first scholar who attempted to view things from such an angle. Note that a psychiatrist was the first. We cannot help asking: Is it possible to present history from the viewpoint of a psychiatrist? History as madness or, to say it more gently, as the real (i.e., that comprehended at the level of reasoning) affected by the unreal. Gumilev's (1979) concept of *passionaries* as the motive power of history is, perhaps, an attempt to describe events from a psychiatric viewpoint.<sup>22</sup>

Here we shall confine ourselves to several quotations from Jung (1953) on the role of Christianity in forming West European consciousness:

Christian civilization has proved hollow to a terrifying degree: it is all veneer, but the inner man has remained untouched and therefore unchanged. His soul is out of key with his external beliefs; in his soul the Christian has not kept pace with external developments. Yes, everything is to be found outside—in image and in word, in Church and Bible—but never inside. Inside reign the archaic gods, supreme as of old; that is to say the inner correspondence with the outer God-image is undeveloped for lack of psychological culture and has therefore got stuck in heathenism. Christian education has done all that is humanly possible, but it has not been enough. Too few people have experienced the divine image as the innermost possession of their own souls. Christ only meets them from without, never from within the soul; that is why dark paganism still reigns there, a paganism which, now in a form so blatant that it can no longer be denied and now in all too threadbare disguise, is swamping the world of the so-called Christian culture. (p. 12)

It is high time we realized that it is pointless to praise the light and preach it if nobody can see it. It is much more needful to teach people the art of seeing. For it is obvious that far too many people are incapable of establishing a connection between the sacred figures and their own psyche: that is to say they cannot see to what extent the equivalent images are lying dormant in their own unconscious. In order to facilitate this inner vision we must first clear the way for the faculty of seeing. How this is to be done without psychology, that is,

<sup>22</sup> The contemporary Russian historian L. N. Gumilev introduced the new term "passionary" to denote people who possess inborn, irrational, passionate temperament that enables them to become a motive force of history.

without making contact with the psyche, is frankly beyond my comprehension. . . . Psychology is concerned with the act of seeing and not with the construction of new religious truths, when even the existing teachings have not yet been perceived and understood. (p. 13)

Of great interest are Jung's views, developed through the whole of his book *Psychology and Alchemy* (Jung, 1953) on the role of alchemy in Medieval Christian Europe:

Whereas in the Church the increasing differentiation of ritual and dogma alienated consciousness from its natural roots in the unconscious, alchemy and astrology were ceaselessly engaged in preserving the bridge to nature, i.e., to the unconscious psyche, from decay. (p. 34)

In Medieval Western Christianity, alchemy supplemented the latter with its thoroughly developed and sophisticated symbolism. A double belief generated by two logically incompatible conceptions proved necessary to harmonize the life of Medieval Christians. Double belief gave rise to a life in two worlds. The second world of the Western Middle Ages was the world of carnivals during which Christian Europe returned to its pagan state. According to Bakhtin (1965), carnivals occupied about thirty percent of the year. Now we understand that this was a supplement to Christianity which was unable to liberate the unconscious.

We could add that the underground of Western Christianity also preserved the heritage of gnosticism, the branch of Christianity which had been turned toward the ecumenical depths of the human spirit. As long ago as the second century A.D., gnosticism gave way to the branch of Christianity which later became official and which submerged belief in metaphors and gave it a severe, rationalistic flavor (St. Augustine, Thomas Aquinas). Gnosticism had gone underground, having preserved the romanticism of the mystery of a contact with the incomprehensible (see, for example, Jonas, 1958; Rudolph, 1977). It lurked in certain orders, both monastic and secular, and sometimes came to the surface at crucial moments: during religious wars or revolutions. Quite recently, many authors grieved over the almost complete loss of all primary sources. And then suddenly the discovery in Nag-Hammadi.<sup>23</sup> This is almost unbelievable.

The Russian Middle Ages also knew double belief: Christianity was stimulated and supported by paganism, which remained the shadowy side of orthodoxy. Double belief was unavoidable for ethnic non-Sla-

<sup>23</sup> In the middle of our century in Upper Egypt, fellahs digging earth in Nag-Hammadi region found a hiding place which turned out to contain a vessel with 13 codices which contained about 50 gnostic texts. Those are revelations of a cosmic flavor, philosophical speculations, talks, dialogues, and, especially important, gospels, acts, letters, and revelations which had been previously considered irretrievably lost.

vonics minorities—and there were many of them—since they did not know either the Russian or the Church-Slavic belief. For them, Christianity existed only through rites which, though powerful, were underlain by consciousness structured by pagan ideas. As to the Russians themselves, they also lived their everyday lives according to pagan rites: even now this can be distinctly seen in not so remote regions of the USSR. It is noteworthy that the old Russian clergy did not oppose the accompanying paganism (if it was not too defiant); moreover, sometimes the clergy even took an active part in pagan festivities. Many sacral ceremonies in the country obviously simulated ancient rites. Recall also the Shrovetide, one of the brightest and most important holidays of pagan pantheism, which entered the Christian calendar as a supplement to Lent. This holiday of the reviving Spring helped to make understandable the holiday of Christ's resurrection, and Easter, prepared by Shrovetide, became more significant in Orthodoxy than in Catholicism. The clergy was afraid not so much of paganism as of sectarianism, of different versions of Christianity. It was sects, not the pagan relics, which were driven underground. And maybe hesychasm, retained in the semi-underground of the Russian monastic asceticism, performed the same role as gnosticism had in the West.

The historical process, i.e., the progress of science and its popularization, started to destroy not so much Christianity itself as the supplementing constituents, such as alchemy or pagan relics, which opened up the way to the unconscious.<sup>24</sup> And Christianity, having lost its connection with the unconscious, also lost its power. This accounts for the explosion of destructive forces in the two world wars and for Nazism as an attempt to come back into contact with the unconscious through the artificially implanted archaic symbolism.

It is of interest to analyze the state of matters in the United States from this viewpoint. The impression we get is that there is going on a spontaneous search for new ways to harmonize the manifestations of the unconscious.

First of all, what we observe is a multitude of beliefs. Here again, we think it relevant to quote the same book by Jung (1953):

Now if my psychological researches have demonstrated the existence of certain psychic types and their correspondence with well-known religious ideas, then we have opened up a possible approach to those contents which can be experienced and which manifestly and

<sup>24</sup> Christianity, due to its deeply mythological character, is sufficiently stable toward scientific criticism. Christian myths in their potential content are incomparably richer than the primitive pagan myths of the European past. They may be easily re-interpreted according to the changing conditions. Note that one of the forms of re-interpretation became its de-mythologization, which in the USSR was represented by Leo Tolstoy and in the West, by Bultman (see Jaspers and Bultman, 1958).



undeniably form the empirical foundations of all religious experience. (p. 14)

If mosaic elements of society are indeed divided into certain clusters, each of which is organically capable of only one religious manifestation, then the right and the ability to choose freely among the multitude of religious systems for those who have chosen successfully opens up the way to harmonizing the unconscious.

One can also observe in the United States the emergence of numerous quasi-religious systems directed at interaction with the unconscious. One of them was the movement of hippies; at its height it resembled the revival of ancient mysteries (Reich, 1970). Another such system is psychoanalysis clad in scientific terms and for this reason not contraindicated for a scientifically disposed society; it exploits the therapeutic confession performed under the survey of physicians and accompanied by the analysis of symbols seen in dreams. The third form which also seems to be quasi-religious is mantra-like painting, i.e., surrealism and abstract painting. The fourth is an almost mass resorting (in certain circles) to meditation with a purely therapeutic goal. The widespread interest in religious-philosophical Oriental teachings represents another attempt to discover a means of direct contact with the unconscious, in a more efficient form than can be achieved in traditional Christian ceremonies.

However, all these trends are largely the possession of certain circles of intellectuals. And what about the rest? Black holes are always filled sooner or later: either by sex, drugs, and alcohol, or by a drive to mindless (from the point of view of others) violence.

And now a few words about Western Europe. We have to acknowledge Nazism to have been an explosion of the unconscious. It was a tragic and ugly response to the scientism and other modern aspects of European culture, Judeo-Christian in its source. Scientism, with its nihilistic attitude toward the unconscious, broke the integrity of consciousness. And the unconscious, in its inferior forms, got out of control.

At present, a few facts have become known concerning the occult basis of Nazism both in a generally methodological aspect and in the concrete activities of the higher officials [see Ravenscroft (1973) and Pauwels and Bergier (1977)]. Even certain seemingly rational scientists were affected by the power of mad ideas. For example, there exists a quite technically serious description of experiments directed at spotting submarines, based on the occult conception of the Earth's concavity. Another example is the German physicists who attacked Einstein's relativity theory as Jewish abstract physics in contrast to true Aryan experimental physics.

However, nobody has so far made a historico-psychological analysis of this phenomenon. Psychologically, Nazism can be regarded as a case of an astral epidemic, where the medium for the infection is represented

by the lower part of the human Self rooted in the ethnogenetic or even phylogenetic past of mankind. Such epidemics can be characterized by the same periods as common epidemics. Both have a latent period, a period of exponential spreading, and then a decline to almost the zero level, immunity, etc. We already considered this similarity (Nalimov, 1981*b*). Perhaps what is happening now in the Moslem countries is also an astral epidemic.

The world is constantly changing. The tragedy of today consists in the fact that the old is being destroyed more rapidly than the new is being created. This brings forth the feeling of being lost. But what is actually lost are the forms of harmonizing life in its combination of the real and unreal. We constantly come across a passionate desire to cope with the sequences of this de-harmonization. One of the manifestations of this tendency is the atavistic urge to restore the lost Protestant morality; another manifestation is social criticism (E. Fromm, H. Marcuse, A. Etzioni, R. Blauner, B. Murckland, etc.) giving birth to a number of positive programs often resembling a social Utopia. But is it possible that a trend deriving from a stock of contemporary culture will eventually acquire real significance?

Our modern culture is generated by science. However, science itself has also undergone a striking stratification: a part has broken out far in advance; other branches still belong to the remote past.

The idea of the world as an empty space void of medium and filled with isolated particles doomed to long-range interaction was introduced by Newton. Contemporary physics rejected the idea of the discrete vision of the World. (We have said much on this point elsewhere). For us it is important to emphasize here that the general scientific outlook has preserved what was built into it at the very beginning. The concepts which left physics remained and took roots in other branches of knowledge. In biology this is represented by the idea that the potential of all life on the Earth is contained in the gene-molecular code which is independent and self-sufficient. In sociobiology there emerged the concept of the selfish gene (Dawkins, 1976): and so we saw a man as a genetic machine. In psychology, at least in its major trends, man is considered as a discrete creature doomed to the same long-range interaction as Newton's atoms. Culture, with its informational super-saturation, turned out to be a medium of *dwelling*, not that of *existence*. Man turned out to be closed within his inner world—he existed like an isolated particle in Newton's void.

Alienation. This idea was already quite poignant in the teaching of the Gnostics. The entire process of development of the modern phase of Western culture has been accompanied by assertions concerning alienation: Hobbes, Rousseau, Fichte, Schiller, Marx, existentialists, contemporary social criticism. The reasons were quite numerous: the absorption

of personal rights by the state in Rousseau's theory of the *Contrat social* (social contract); the effect of the irrepressible progress of technology; private property and labor distribution; and even merely existence under social conditions. Now alienation has acquired the force of an alarm-bell—and a new meaning: man is *alienated from himself*. The transpersonal semantic continuum in which man is embedded was proclaimed non-real. Imagine that a particle existing in the endless interaction with the physical field would have consciousness alienating it from the idea of the field! Then the existence of such a particle would have been as uneasy as that of the contemporary man. The cosmos would have been filled with the sound of the electronic alarm-bell. The electronic particles would have to borrow from people the cult of demons and demiurges, as well as the vogue for astrology.

The search for the ways of harmonizing the real and nonreal is, as a matter of fact, the urge toward creating a new culture. It is in this sense that we can say we live through the second Mediterranean.

### L. Indivisible Integrity of Consciousness

Above we have constantly contrasted consciousness and the unconscious. But this dichotomous opposition so typical of our culture is nothing more than a rhetorical figure. Without contrasting, we cannot speak. But, in fact, we always deal with an indivisible integrity.

The indivisible integrity of consciousness may well be seen through the semantic analysis of related words given bilingually.

The reader can see in Figure 11.4 the French words describing the vari-

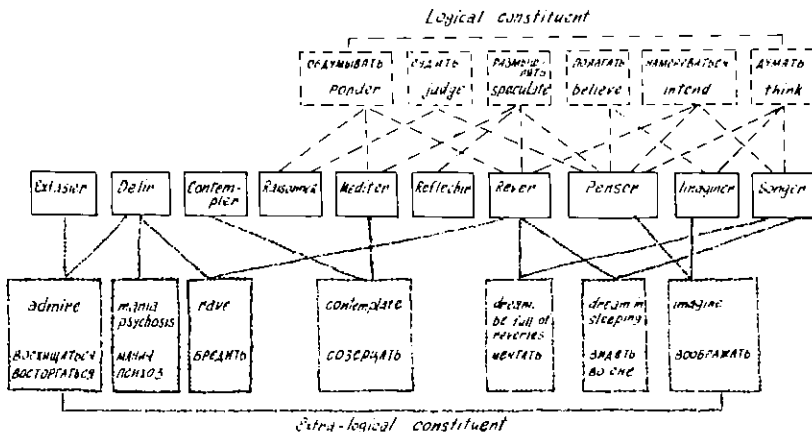


FIGURE 11.4

ety of manifestations both of our consciousness and of its unconscious component. The Russian equivalents for these words were found in the large French-Russian dictionary. We see with a certain amazement that all the French words reflect one and the same semantic field, namely, different combinations of its parts. All the French words prove to be synonymous: they join one another through their Russian equivalents. The same is true of the Russian words. For example, such words as *sozertsat'* (contemplate), *videt vo sne* (dream), *bredit'* (rave), etc., which obviously relate to the extralogical aspects of consciousness, join through French words the words which seem to relate to purely logical aspects, such as *dumat'* (think), *razmishlyat'* (reason), *sudit'* (judge), etc.

We would like to emphasize here that it is easier and more pleasant to make such an analysis on the basis of bilingual dictionaries rather than explanatory ones. This can probably be explained by the fact that the paradigmatic pressure of today is not so strong in bilingual dictionaries.

And now, one last remark: the bilingual dictionary reveals the difference between the two French words *Contemplation* and *Méditation*. If the first one has only one Russian equivalent, *sozertsanie* (contemplation), the other one is translated by three words: *razmishlenie* (reasoning), *obdumivanie* (pondering), *sozertsanie* (contemplation). The semantic field is much broader in the second case. Perhaps the new translation loan word *méditation* from French was introduced into the Russian language for this reason.