

HASIDIC CONTRACTION: A MODEL FOR INTERHEMISPHERIC DIALOGUE

by *Mordechai Rotenberg*

Abstract. Neuroclinical studies have claimed that the right side of the brain is associated with mystic orientation and sensual-affective functioning and that the brain's left side is related to logical-analytic thinking. From observations of conversion processes among repenters and cult recruits, it is hypothesized that a drastic switchover between mythic and analytic life orientations, via a dialectic replacement of the previous code, may result in a psychopathological disorientation. Based on the Hasidic-Cabalic notion of mutual "contraction," a dialogical model of interhemispheric balancing, which *a priori* trains people to interpret reality through simultaneous rational Talmudism and Cabalic mysticism, is introduced.

When a year ago our dear unforgettable friend, the late towering scholar Victor Turner to whose memory we now dedicate these issues of *Zygon*, visited us in Israel with his wife Edith, he urged me to present my Hasidic-Cabalic contraction paradigm. At first I hesitated; I said to him that essentially my theory comprises only a theoretical model predicated on the Hasidic-Cabalic culture and that there are only "lip-service footnotes" regarding the possible implications for interhemispheric brain studies. Victor, nonetheless, answered me that in fact, so far, most efforts to study the relationship between religion and brain functioning are still in their speculative stage, and, since very little is known about the Hasidic-Cabalic religious system, he assured me that there will be interest in listening to my theoretical propositions concerning possible interactions between Judeo-Hasidic behavior and brain functioning.

I must admit today that the more homework I did in preparing this essay, the more I came to realize that Turner, with his ingenious vision

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and intellectual intuition, knew better than I. He saw the potential for the model which fascinates me today. I present this model in his honor and memory and with his inspiration but with my "orphanized" sorrow that I can no longer share with him what I dare to term the Jewish myth of contraction as a model for interhemispheric dialogue.

In a moment I shall introduce the Hasidic-Cabalic myth of contraction (see Rotenberg 1983) and its implications for a theory of balanced hemispheric brain activity, but let us first summarize those major postulates emerging from recent cognitive and neuroanatomical studies of myth making and brain functioning to which our propositions pertain.

MYTH MAKING AND BRAIN RESEARCH

The literature summarizing neuroclinical observations of brain functioning has repeatedly claimed that the parietal lobe on the right side of the brain is intimately associated with the perception of *spatial* relations which are holistic or gestaltist in nature. By contrast, evidence indicates that the left hemisphere, which in the West is usually the more dominant side of the brain (especially the angular gyrus), is strongly related to such activities as mathematical operations requiring logical analysis or sequential ordering in *time*. Most important concerning the lateralization of the cerebral hemispheres seem, however, to be the conclusions deduced on the basis of recent experiments with animals and humans who had their corpus callosum and anterior commissure sectioned to prevent the interhemispheric spread of epilepsy. While the left cerebral hemisphere was indeed found to produce speech, and rational and analytic thought which processes *temporal* units and controls the ability to set opposites one against the other, the holistic right hemisphere, it was claimed, organizes the *spatial*, tonal, and other sensual and affective percepts including those which constitute the *emotions*.

Now, according to H. Gardner (1975), for example, for a number of years during childhood, learning of diverse sorts may occur in both hemispheres, but after adolescence each hemisphere becomes incapable of executing the activities of the other side either because it has no longer access to its early learning or, more importantly, because early traces have begun to atrophy through disuse. Before going any further, let us, therefore, first of all eschew the synonymous identification of the left hemisphere with the dominant side as a Western bias: it may be that only in the West high emphasis is put on rational analytic training, while among artists or in other non-Western cultures the right hemisphere may be more dominant due to increased affective and holistic orientations.

However, here we come to the more basic question with which these issues of *Zygon* are concerned: can religious myths and rituals explain how and why various cultures maintain hemispheric balanced or imbalanced socialization systems? And further, can one reactivate hemispheric functions after extended disuse, and, if so, how?

R. A. Luria (1966) has shown, for example, that lesions or destructions of brain parts in the area which N. Geschwind (1965) termed the "inferior parietal lobule" inhibit the ability for comparing dyadic opposites and for generating antonyms; and E. d'Aquili has suggested on the basis of the above-mentioned evidence that the inferior parietal lobule on the left side "may not only underlie conceptualization but may be responsible for human proclivity for abstract antinomous or binary thinking which underlies the basic structure of myth" (d'Aquili 1983, 250). According to some anthropologists, the human need to construct and reconstruct myths is a response to the "capricious universe" or the "imperfect world" in Max Weber's terms in which we reside. In this world the antinomies or polar oppositions, with their coding systems determining what is good and what is evil, constantly change. Thus, the process of myth making serves as a hermeneutic instrument to bridge between cognitively incoherent and causally unexplainable sequences in everyday reality. It has been suggested further, although with no clear implicatory evidence, that the dual hemispheric brain functioning may be linked with W. R. Hess's model of the *ergotropic* and *trophotropic* systems. Very briefly, the function of the ergotropic system (derived from *ergon*, meaning work) is said to be related to *energy-expending* mechanisms, so that it encompasses not only the sympathetic nervous system which controls states of physical and emotional arousal, increased activity, and what is commonly termed "getting high" but also such processes as increased heart rate, blood pressure, and other stimuli. The trophotropic system (meaning nourishment) is generally said to be associated with the *energy-conservation* mechanisms of an organism, including the parasympathetic nervous system which regulates the basic vegetative and homeostatic functions. Accordingly, the trophotropic system maintains the baseline stability of an organism by reducing, for instance, heart rate and blood pressure. Such reductions are then manifested in general inactivity and drowsiness, resulting in a state of "cooling off" as would be reported by those who claim to have experienced "trance states." Elaborating on Hess's model, d'Aquili and C. Laughlin (1979), for example, venture to link the trophotropic energy-maintaining system with the right hemisphere and the ergotropic energy-exerting mechanism with the left hemisphere, which, as we have said, requires analytical, rational thinking. D'Aquili and Laughlin posit that between the right and left hemi-

sphere there operates a “spillover” reciprocity exchange system when either one of the hemispheres is overstimulated. They further indicate that meditation is initially and essentially a right-side trophotropic technique, since it involves thought and desire reduction as would presumably happen in ego emptying Zen practice, while ritual (“the dance”), which usually requires repetitive rhythmic motor activity such as visual and auditory driving stimuli, is initially activated by ergotropic excitations.

To what extent these propositions relating the ergotropic-ritual operations to the left hemisphere and the trophotropic-meditation practices to the right hemisphere are indeed empirically substantiated is a question with which one should deal separately. The point which should interest us here is that from a cognitive-affective perspective both meditation and ritual are in fact nonanalytic and nonrational but adaptive responses to rational problems for which humans, who live in a “capricious world,” cannot find answers.

Let me explain this contention. If myth involves left-hemispheric operation which is supposed to bridge or rearrange the unexplainable antinomies or polar dyads such as good and evil or life and death, with which we are confronted in our imperfect world, then a model which operationalizes myth in meditation and ritual practice terms but which does not incorporate any rational-causal and analytical thinking will theoretically cause hemispheric imbalance. That would be so because, if indeed “during certain ritual and meditation states, logical paradoxes or the awareness for polar opposites as presented in the myth appear simultaneously both as antinomies and as unified wholes” as d’Aquili and Laughlin argue (1979, 176), then this mystic anatomic harmony, which is acquired through a right side *emotional* stimulation but which excludes any left-hemispheric analytical causal activity, might gradually cause the latter to “atrophy through disuse” as Gardner (1975) proposed. This would produce hemispheric imbalance.

DIALOGIC VERSUS DIALECTIC INTERHEMISPHERIC BALANCING

It would seem obvious then that the criteria for setting and resetting polar and opposite dyads according to changing norms and circumstances derive from various cultural hermeneutic coding systems. It is after all the cultural *Zeitgeist* which legitimizes or disqualifies the interpretations of and ways of reconciling stressful contradictions in life—at one time on the basis of Eastern affective-mystic codes as manifested in the 1960s by the psychedelic counterculture in the United States, while at other times reconciliations of irresolvable contradictions will be permitted only via the use of rational hermeneutics such as psychoanalytical methods.

In spelling out the cognitive and neurobiological transformation modes which people use periodically in order to readapt themselves to their ever changing environment, d'Aquili (1983), indeed, rejects a *dialectic* definition of transformation, such as the psychoanalytic method which calls for a *replacement* of cognitive and affective elements with a totally different set of elements. He thus prefers what we would term a *dialogical* formulation of transformation, which is akin to a Lévi-Straussian structuralist transformation by which elements are not substituted but reorganized or *rearranged*. D'Aquili's "spillover" model thus essentially means that unexplainable dyads are not resolved by drastically *shifting* from the rational left hemisphere, which is unable to provide answers to irreconcilable, transcendental questions of life and death, to the affective, emotional, and timeless right-hemispheric operation. Rather, it basically calls for a simultaneous stimulation and activation of both hemispheres to maintain the necessary homeostatic equilibrium.

However, here again the practical question remains: How do myths, which are supposed to bridge the unexplainable polar opposites such as good and bad, provide the means for a simultaneous rational-left and emotional-right hemispheric balance?

DRASTIC INTERHEMISPHERE SHIFTING AND DEVIANCE

As a person who has devoted many years to studying the possibilities for understanding and altering deviant conduct, let me stress that the problem of drastic switching from a rational reading code of reality to a mystic code, for example, from the analytic-rational left hemisphere to the emotional-gestaltist right side, becomes quite crucial when one observes conversion processes mainly among cult recruits.

Very little is known how various hermeneutic systems, which provide reading codes for interpreting reality, affect or reflect hemispheric brain functioning. One has all the reasons to speculate, however, that, if in one culture the hermeneutic code used for training people to interpret their reality is based on faith in irrational magic or transcendental explanations of cosmic activities, then the process of comprehending reality must operate mainly through the right hemisphere since faith is not an analytical but a holistic emotional activity. On the other hand, if only a rational-analytic hermeneutic code is used to read and interpret reality, then this cognitive understanding of the universe should be processed primarily through the left hemisphere.

Now, research on psychopathology has repeatedly demonstrated that schizophrenic thinking in the West in fact constitutes and provides a mystic hermeneutic code for reconciling those unexplainable polar opposites which the Protestant rational West usually leaves unan-

swered (see Sarbin 1969). P. Flor-Henry (1974) has found, for example, that left-hemispheric dysfunctioning was observed among those labeled "schizophrenic." While, accordingly, one may conceive the emergence of the psychedelic counterculture in the United States and Europe during the 1960s as a shift or escape from the overactivation of the rational competitive left hemisphere to the meditative, blissful homeostatic and gestaltist hippie culture in which right-hemisphere brain activity predominated, one should expect to find also psychotic breakdowns resulting from a too drastic interhemispheric switchover in brain activity among those who experienced such sweeping shifts. (Parenthetically, it might be said here that revolutionary and oppressed minority movements usually lean toward the left because without "rights" they feel "left" out.)

Although not reported by professional social scientists, citations of two cases used by F. Conway and J. Siegelman to document the phenomenon they termed "snapping" will elucidate the dangers inherent in instant switching in brain functioning. In one case describing the conversion of an American person by an Eastern swami, the guilt and fear of disorientation due to a drastic switching to a sensual-pleasure-based operation of the brain (probably because it is a taboo zone in the West) is explicitly stated: "I felt as if a huge pool had opened in my heart—full of soft air, and I was floating on it. It was the most intensely sensual feeling I had ever had . . . my first reaction was a sharp pang of guilt a feeling that I had stumbled into some forbidden region . . . in my brain, which would keep me hooked on bodyless sensuality . . . until I turned into a vegetable . . . then I forgot about thinking and just let myself drift" (Conway & Siegelman 1978, 61).

The drastic shift from what would seem a left side kind of rational thinking to a sensual, emotional-based right side operation may even be more clearly evident in the following account of a "deprogrammed" ex-Hare Krishna convert: "The vegetables are amazing. . . . The guy who brought me into the cult was a college graduate in philosophy, and he used to teach classes every day. He went nuts, started saying weird things and began screaming at the women all the time. . . . There are people cracking all the time. . . . Some people would have attacks and become very violent. . . . After a while you just accept it. You accept insanity as a matter of course" (Conway & Siegelman 1978, 181).

It is not necessarily the case that the drastic sweeping changes, which converts experience in contemporary religious cults or in recent communist thought reform or brainwashing systems, operate as Conway and Siegelman indicate. "Like an electric shock, [because] the information an individual receives from some massive physical, emotional and intellectual experience may be powerful enough to destroy deep and

long-standing information processing pathways in the brain” (Conway & Siegelman 1978, 132). Rather, it seems that the instantaneous switching from either the left-rational or the right-emotional hermeneutic code to the absolute exclusion of the other code would comprise the underlying cause for a convert’s mental breakdown.

Here it might be suggested that in the Christian West, which is permeated by the notion of the unshakeable guilt of “original sin,” the only possible salvation from the rationally unexplainable “capricious universe” is through the drastic *death-rebirth* or “born again” process (see James 1971), which might in fact require practically the instant change from a disappointing left-hemispheric predominance to the redeeming mystic right-hemispheric activation. Indeed, our observations among the recently popular repenters (*baaley teshuva*) movements in Israel strongly suggest that cases of emotional breakdown may be noticed only among those (mainly Westerner-American) who switched drastically from one hermeneutic code to another, while those using both codes seem to manifest remarkable stability. Although these propositions require systematic validation, it should be of special interest to introduce now our Hasidic-Cabalic contraction myth as a dialogical model for interhemispheric balance.

HASIDIC-CABALIC CONTRACTION AND INTERHEMISPHERIC DIALOGUE

In his eloquent review of the literature, exploring the functional interdependence between body, brain, and culture, Victor Turner addressed us with the challenging quest for new descriptive work which will throw light on the question, how does the current picture “of brain functioning and of the central nervous system accord with distinctive features of the varied religious systems that have *survived* to this point in time and exerted paradigmatic influence on major societies and cultures?” (italics added, Turner 1983, 237). As I believe that Judaism represents a major case study of a religion which has not only “survived” but which has also exerted some paradigmatic, that is, phenomenological influence on other (mainly Western) societies, I would like to describe here such a model emanating from the Cabalic myth of contraction which I believe entails the components for maintaining interhemispheric balance.

We have said that survival via constant readaptation to the ever changing environment requires not a dialectic hermeneutic system, which replaces one fundamentalistic reading code with another, but a dialogic system that facilitates multiple interpretations of reality. The physiologist J. M. Davidson suggested, for instance, that “whether a right-hemisphere dominated experience would be classified as hal-

lucinatory, psychotic or mystical" depends primarily on "beliefs and attitudes resulting from experience and training" (Davidson 1976, 372). One might assume accordingly that, while often drastic switches, or rather collapse, from ergotropic ecstatic rituals to trophotropic meditation resulted in healing psychosomatic or mental disorders (see Davidson 1976, 372), in most cases such instant interhemispheric changes will cause, as alluded to above, "psychotic" disorientation, because changing beliefs requires prolonged hermeneutic training in reading one's reality one way or the other. If we rephrase this proposition in current brain-functioning terms, this would essentially mean that survival may largely depend on a double hermeneutic code allowing for a balanced simultaneous reading of reality through analytical-left hemisphere spectacles and through affective-mystic-right hemisphere lenses.

It seems that the Hasidic-Cabalic myth of contraction provides precisely those *a priori* double reading glasses facilitating and requiring a simultaneous mystic and rational interpretation of reality, so that individuals may constantly readapt and replace themselves in space and time. As I have endeavored to demonstrate in my recent book, (Rotenberg 1983), the Cabalic myth of divine contraction comprises a theodicy and an *imitatio Dei* model by which polar opposites as good and evil may constantly be reconciled by maintaining both a rational scholastic system as well as mystic ecstatic procedures through which one may neutralize apparent evils and actualize goodness.

Thus, unlike the Gnostic-dualistic unbridgeable dichotomy between the Kingdoms of good and evil, which originated in Persian Zoroastrianism, and unlike the passive Neoplatonic conception of evil as the absence of Godness, the Cabalic theodicy of divine contraction (*tsimtsum*) explains the possibility of "seeming" evil and our free will to overcome it as resulting from God's voluntary active contraction. Accordingly, it is God's volitional dimming of its own brightness which made the creation of the world and its apparent evils possible. Thus, according to the Jewish mystical Cabalistic doctrine of *tsimtsum* (contraction), God's self-shrinkage, condensation, or withdrawal into itself to evacuate primordial space for the human world is a dynamic ebb-and-flow process of regression and egression, of *tsimtsum* and *hitpashtut* (embracing or expansion), of dimming its own light but staying in the background to bestow light whenever necessary. Contraction is hence not a one-time act of total withdrawal but a continuous, dynamic process of the dimming or covering of the brightness of the divine light. This light is not "absent"; rather it leaves its "impression" (*reshimu*) where it shined so that it will not blind or burn the human world it created. Thus, it will be there, as the sixteenth-century Jewish Cabalist

Y. Luria stated, “according to the measure needed to give them [the world] light or life” (Vital 1890, 1:25). The process of creation then, as G. Scholem states, involves a double-strain of “light which streams back into God and that which flows out from Him. Just as the human organism exists through the double process of inhaling and exhaling and the one cannot be conceived without the other, so also the whole creation constitutes a gigantic process of divine inhalation and exhalation” (Scholem 1941, 261-63). Here the first step of creation begins not by emanation but by the commonly conceived act of God’s (the En-Sof or Infinite Being) self-contraction. Consequently, this dynamic ebb-and-flow process, which as in most ethical systems serves as a model (*imitatio Dei*) that humans are urged to emulate, constitutes the essence of the dynamic-monistic theory of evil and deviance. This is because the Cabalic creation process assumes paradoxically that evil exists not as an inevitable absence of goodness or “godness” (because the idea of a godless vacuum is heretic) but as the “throne of goodness,” which is how the founder of Hasidism, the Baal Shem Tov (“Master of the Good Name” shortened to “Besht”), will subsequently phrase it in the eighteenth century. Thus “evil” is nothing but “an instrument for the good goals of the good God” (Tishby 1975, 12).

The Cabalistic doctrine of contraction hence entails the seeds of the philosophy of paradox, because it conceives the coexistence of polar positions or elements as functional and necessary components of creation and progress. Accordingly, the process of contraction made it possible for the element of divine sternness (*midat hadin*) to emerge in the world, as Y. Luria is cited as saying, “in the power of sternness that was exposed there with the contraction” (Tishby 1975, 24). But at the same time unity and harmony are possible only through the coexistence of contrasts—through the interaction between this element of sternness (harshness) and the element of divine compassion (*midat harachamim*). This is because the world can exist only through the continuous dynamic interaction between matter and spirit, between good and evil, between “I” and “thou.”

As a matter of interest, according to the Cabalic world in which the ten *sefirot* (portrayed as a tree or a human body) essentially represent the ten basic divine elements through which God manifests himself in the world and facilitates its operation, left and right side elements correspond generally to empirical findings about hemispheric brain functioning. For example, *Chochma* (wisdom), in the sense of God’s self-meditation, is pictured on the right side while *Binah*, referring generally to intelligence, is pictured on the left. But more clearly compatible with accepted hemispheric division of brain activities is the fact that *Chessed*, referring to love and God’s compassion, is conceived

as on God's right-hand side while *Din* (severity) or rigorous judgment, that is, analytic rationalism in our terms, is perceived as a divine left side component (see Scholem 1974).

In order to understand how the twofold mystic-ritualistic and the rational scholastic interhemispheric orientations (which would hypothetically correspond to right and left hemispheric activities) follow from the notion of contraction, it is useful to notice how the metaphor of light is employed in training people to read reality. According to Cabalism, especially later Cabalism, divine contraction is explained as a functional cathartic cosmic process known as the shattering ("breaking of the vessels"). This refers to a kind of divine breaking for the sake of differentiation and correction, as Y. Luria stated: "and here this contraction . . . is called breaking for the sake of correction" (Vital 1882, Shaar A.A.1). This functional cathartic "breaking of the vessels" (*shevirat hakelim*), which followed the process of contraction and which has many explanations in the literature of mysticism, presumably caused a diffusion or shattering explosion of the divine light; and the sparks of that light flew either back into their divine source or downward into the abyss and depths of the earth. In this way, it is said, the good elements (i.e., the divine sparks) came to be mixed with the so-called vicious elements (i.e., the shells [*kelipot*]) (see Scholem 1941).

Humanity's salvation (*tikkun*) requires a constant effort to restore the divine order by raising or uplifting to its divine source the holy sparks that are scattered in the world. According to the major Cabalistic document, the *Zohar* (which originated according to the religious tradition during the pre-Talmudic era but according to scholars during the late thirteenth century), the corrective actions of human beings in this world actually lend strength to divine activities: "In the earthly activity the upward activity is awoken, if a man performs properly down [on earth] so strength is awoken properly upwards" (cited in Tishby 1975, 2:434). Moreover, according to Hasidism, which brought heaven down to earth by reinterpreting Lurian Cabalism in an optimistic, operational salvation language accessible to the masses, there is now actually no evil in the world. What appears to be evil is only disguised by "shells." Hence in every earthly activity (*gashmiyut*) such as eating, rejoicing, copulating, and even sinning there are holy sparks that may or must be redeemed by peeling off the "evil" shells, so to speak, and raising them back to their divine source, thus "correcting" part of the primordial breaking. Salvation means now that humans must learn to see the good element inherent in every possible event and experience. Moreover, in terms of motivation, salvation means not only that we humans have the free will to choose between commission and omission of the evils of this world but also that we have the obligation and power to "correct" heaven, which through the divine process of self-

contraction lends itself to be influenced by our spark-lifting endeavors inherent in the concept of *tikkun* (correction). Here it should be stressed that the Talmudic term *Chutzpa* refers originally to our human dialogical correction obligation and optimistic ability to argue with and influence Heaven's decrees.

HERMENEUTIC PLURALISM AND INTERHEMISPHERIC BALANCE

While the theodicy myth of divine space evacuating contraction is intricate, what should interest us here is that the idea of God's self-contraction to allow for a bilateral intercorrective dialogue between humanity's materiality and God's spirituality becomes a multiple actualization model which people are urged to emulate. Thus, mystic-correction "spark-lifting" rituals are not to replace Talmudic rationalism; instead both are to be employed simultaneously as hermeneutic codes for understanding and experiencing reality. Indeed, this is implied in the biblical verse of "*Shema Israel*," which, from early childhood, the Jew is trained to repeat three times a day: "And thou shalt love the Lord thy God with all thy heart and with all thy soul and with all thy might . . . and thou shalt teach them diligently unto thy children and shalt talk of them when thou sittest in thine house and when thou walkest by the way" (Deut. 6:5,6).

The point to be explained, however, is that, while according to Jewish hermeneutic pluralism one could and should actualize Judaism through ritual praying of the heart and by teaching scholastic Talmudism because the Torah as a guide for reading life "has seventy faces," that is, infinite interpretive possibilities, this balancing hermeneutic system was not always heeded. According to Scholem (1941), by and large from the tenth- to the fifteenth-century Maimonides' style of rational-philosophical Talmudism predominated Jewish praxis and thinking, although Cabalic mysticism was not unknown. It was only the famous expulsion of Jews from Sapin which marked the crisis and breakdown of the "philosophical era" at the end of the fifteenth century. This might explain the explosive rise of Cabalic mysticism in sixteenth-century Zafat. But it is only the seventeenth-century Shabbateist false-messianic crisis, during which ritual mysticism predominated, that seems to explain the eventual lasting success of eighteenth-century Hasidism.

Hasidism did not replace Talmudic rationalism, but it struggled to guarantee a coexisting equal status for the ecstatic-prayer alongside rationalism. Thus, states Rabbi Yaacov Yoseph of Polony (1963, 243), the Besht's contemporary disciple and exponent:

Since similar to the individuality within one person the soul and form is not to feel superior over the body and say that it is a soul . . . and even more so the

body is not to be arrogant over the soul as it holds the soul . . . as they need each other like a man and a woman, each being half a body, so it is in the collective, the Talmudic scholars and righteous are not to say that there is no need in the masses . . . and even more so the masses are not to say that there is no need for Talmudic scholars . . . since their livelihood is due to them . . . and so each one is half and with both together matter and form whether in the collective or within the individual it becomes one full person.

Hasidic usage of matter and form, which to a great extent, rebalanced Jewish original hermeneutic pluralism, could now be interpreted through the process of contraction as dialogical coexistence between the rational-analytic element of sternness (*midat hadin*) and the intuitive-emotional element of compassion (*midat-harachim*). Here the dialogic principle of a reorganizing coexistence between the intuitive and the rational hermeneutics of life receives its concrete operational meaning. To designate the interrelationship between the rational and the irrational, the recently popular Rabbi Nachman of Bratslav, the Besht's great-grandson, used the two concepts of "inner mind" and "engulfing" or "encircling mind" (see Weiss 1974, 116). The rational mind refers to the inner mind (which, indeed, due to its rational basis, penetrated one's mind), and the encircling mind refers to the intuitive and irrational (which, indeed, one cannot conceive and interpret logically in one's inner mind but which is nonetheless there). The difference between the two intertwined forms of thinking is that the rational inner one refers to the "mind which one acquires through many introductions" and the intuitive one refers to the spontaneous mind, the "mind which comes to a person without any introduction."

The relationship between the inner mind, which resembles the Bergsonian rational matter, and the encircling mind, paralleling Bergson's spiritual intuitive, does not lie in the intuitive being nebulous, pre-conscious knowledge but rather in it being a clear, creative spontaneous flash of the mind that has not yet been processed and substantiated by the inner rational mind. Here the popular expression of "open-mindedness" colors the vital relationship between the inner rational mind and the external intuitive encircling mind. Thus, the inner rational mind is not closed or locked up but remains open and is constantly nourished by one's intuitive, creative encircling mind. Hence it is a peoples' active hoping and waiting for the Messiah with creative "wondering" (see Heschel 1966) but with nonetheless unceasing faith, and it is humanity's creative swimming in the ocean of intuitive questions, not our landing on the safe shore of rational synthesis (see Weiss 1974, 120), that breeds life into the continuous dialogue between contrasting elements that are paradoxically and functionally interrelated. Moreover, according to Rabbi Nachman, rational final answers eliminate the creative free will: "The essence of work and free choice is that

the mind of knowledge does not know" (see Weiss 1974, 146). Thus, in the rational synthetic "redeemed world" of the millenarian Messiah who has already come, there is no choice, because restorative past-oriented salvation refers to the rational known. However, in the utopian future-oriented hypothetical world that has not yet been redeemed, free will is constructed on the paradoxical relationship between the mystic unknown world of the future and the rational known world of the past, which complement each other.

The idea of socializing people to live in a world of contrasts—which does not require a "schizophrenic" dichotomy between secular rational activities and intuitive mystic orientations but in which hypothesis and not synthesis ascertains their dialogic coexistence—was possible only through contraction as J. G. Weiss stated: "The first momentum movement of creation was also the hour of appearance of the question and its beginning predominance in every reality . . . the vacuum that was created due to the act of contraction whereby the Godly contracted itself to provide space for the creation of the world . . . is the very essence of the . . . contradictory dialectics" (Weiss 1974, 120). Thus, Jewish and particularly Hasidic ideology would train people to perceive the world through Maimonides' rational spectacles and through Nachmanides' Cabalic mysticism, because life perceived as a creative hypothesis requires *a priori* constant dialogical interaction between irrational intuition and rational empiricism.

The creative relationship between seemingly contrasting elements inherent in the questioning hypothesis that connects them calls for a brief reformulation of the *tikkun* concept in light of the proposed philosophical "sociology of the paradox" and its implications for inter-hemispheric transformations.

REARRANGING "TIKKUN" AND THE PARADOX

A famous Hasidic story tells of a simple farmer who came into the synagogue in the midst of the High Holiday prayers and sat down to chant the alphabet, which was all he was able to read in Hebrew. When asked by the respectable, frowning members of the community exactly what he was trying to do besides cause a turmoil, he is said to have answered, "Unfortunately, I only know how to read the alphabet. I trust that God, who knows what I want to say, will rearrange the letters into the proper words."

The Cabala attributes great significance to the symbolic meaning of reconstructing words by rearranging their letters so that they take on a new, usually contrasting meaning. Thus, by rearranging the word *ani* (I or me) into *ain* (nothingness) the imperative verb of *iyun* (self-designification) is derived. Rearranging seemingly contrasting ele-

ments thus constitutes the paradoxical essence of the monistic notion of *tikkun*. In the monistic world, all elements may in principle be functionally interrelated. Their seeming dysfunctional, contrasting, and often clashing appearance results mainly from the improper connection between them. Thus, in the monistic world of paradoxes *tikkun* (correction) is actually a matter of rearranging seemingly contrasting elements. The Hebrew word *nitukk* (separation, disconnection) becomes *tikkun* by rearranging its letters. God's holy sparks, which fell down into the depth of the earthly abyss, are merely misplaced; hence the creative "spark-lifting," correcting (*tikkun*) process is a matter of restoring order and reintegrating the original monistic whole by replacing and rearranging the divine sparks where they belong—up in heaven. Indeed, the symbol of fertility and creation upon which the perpetuation of life and existence depends is explained in the Cabala (see Tishby 1975) as a process emanating from a proper arrangement between the two contrasting symbolic creatures—male and female. Life, creation, and continuity are possible only when male and female are arranged together in certain physical positions. Thus paradoxical *tikkun*, which would facilitate creative continuous relationship between seemingly polar contrasting elements, requires the prevention of *perud* or *nitukk* (separation or disconnection), and the creative connecting rearrangement of male and female or any other paradoxical, contrasting elements. In this way *tikkun*, be it sociohistoric, therapeutic, or political, can make evil the throne for goodness in a Beshtian sense by using the rearranging "spark-lifting" transformation process of attributing new existential meaning to previously distressing phenomena or by creating new gestalts out of old dysfunctional structures that were perceived as unchangeable givens. Thus, creativity means indeed nothing else but the creation of new compositions out of old elements.

I have discussed at some length the Hasidic twofold affective-cognitive or rational-intuitive model for rearranging the ever changing paradoxical, that is, seemingly opposing elements in life, because I believe that it was the Hasidic interpretation of Cabalism which has contributed more than anything else to what we would term here the reinstitutionalization of Jewish interhemispheric balance. It is thus not only that the intuitive, irrational, creative questioning is relegitimized via the original Jewish notion of hermeneutic pluralism, but it is the mystical rituals of ecstatic praying which now receive their structural reorganizing meaning of *nituk* (separation) that becomes again *tikkun* (correction). Thus, everything that appears as "evil" or unexplainable is reconverted and given new meaning through operationalizing the contraction myth in "spark-lifting" terms of *tikkun* (correction).

The hypothesized interhemispheric balancing dialogue, according to which the presumed right side emotional activation is utilized to

re-energize or refacilitate the analytical left side Torah teaching, may be illuminated in a typical citation from Rabbi Nachman's biography (see *Chaye Moharan* 1952, 85) describing how he would emerge from the state of melancholy "smallness" (*katnut*) to the state of enlightenment "greatness" (*gadlut*). Thus, tells his biographer that once he began "to teach Torah from the situation of simpleness (depressive "smallness") . . . and he revived himself during this state . . . by reliving (the experience) of his trip to the Land of Israel . . . and he explained that now he knows nothing . . . and then he said that he is happy that he has had the privilege of being in the Land of Israel. . . . And then he was in great joy and reprimanded Rabbi Naftali for being a bit ashamed to play music . . . and then he was very happy." From the state of depression Rabbi Nachman ascended first by reliving affectively a past joyful experience (his trip); then he began to revive others by urging Rabbi Naftali to play music (activating the right hemisphere) so that finally he could return to the rational business of teaching the Torah (left-hemisphere activity) in a state of "greatness." Thus, right-hemispheric energizing becomes instrumental for left-hemispheric rationalism.

CONCLUSION

Space and time do not allow us here to describe in full some of the doctrinal techniques permeating the Hasidic literature which offer instruction how to utilize ergotropic (in Hasidic terms "ascent") and/or trophotropic (in Hasidic terms "descent") methods of meditative and ritual practices including dancing, chanting, and even joking and drinking as well as intuitive mystic methods for interpretations of reality through the act of telling symbolic legends and parables to be found in or patterned according to the Jewish *Midrashic* tradition. The point is, however, that these right-hemispheric techniques are not conceived as dialectical substitutions for rational-analytic Talmudism; rather they are regarded as complementing expressions to be used dialogically with it so that the resulting dual hermeneutic model could then be used to train people *a priori* to interpret and experience life through both hemispheres.

Here it should be pointed out again that, while d'Aquili and others conceived meditation as an essentially trophotropic right-hemispheric activity which in conjunction with ergotropic rituals might be understood as an interhemispheric balancing mechanism through the hypothesized "spill over" process, both of these orientations are right-sided from a cognitive-affective point of view. In contrast to this mystic (right-sided) reading of life, which usually underlies energy expending rituals and energy conserving meditation, our Hasidic contraction model proposes a dialogical interaction between rational Talmudism

and mystical Cabalism as a combined dual hermeneutic system for experiencing life.

It should thus be stressed that, while during its early phases right-hemispheric actualization may be said to have predominated Hasidic praxis, one may say that this was so only due to its bitter struggle for recognition and legitimation by the Lithuanian Talmudists, the *Mitnagdim* (opponents). Gradually, however, one may notice how a balancing process of what may be termed the "Hasidization" of the Lithuanian "yeshivot" (Talmudic colleges) and the "Talmudization" of the Hasidic "yeshivot" takes place. For example, my late father, who was a descendent of a famous Hasidic dynasty, had to "rebel": in order to be ordained as a rabbi he had to attend a Lithuanian yeshiva because "in the Hasidic yeshivot they practiced the rituals alright, but they did not study seriously" as he would say; however, today, especially due to the influence of people like Rabbi Carlbach, Hasidic singing and dancing features most Lithuanian yeshivot, and rational Talmudism is part and parcel of Hasidic yeshivot.

In conclusion, our dialogical model of interhemispheric balancing has hypothesized the following. First, drastic interhemispheric switching from a rational to a mystic, or vice versa from a mystic to a rational, reading of reality may result in mental breakdown or cognitive disorientation. This could happen among Western recruits to mystic cults or, conversely, among primitive tribe members suddenly transplanted to a rational Western country. Second, the *a priori* inculcation of a balanced left-right hemispheric activation may be functional for living in a "schizophrenic" world of contrasts, providing that the cultural hermeneutic for reading life is sufficiently flexible and pluralistic to allow constant new readaptive concretizing and rearranging for new interpretations of reality. Third, the above-presented model for interhemispheric balancing is obviously at this stage highly speculative and in need of repeated and diversified empirical validation. Fourth, the dialogical components of the model, which is by no means exclusively Jewish, may nonetheless be identified in the Jewish *Midrashic* tradition offering a multiplicity of hermeneutics for reading reality. Fifth, the proposed interhemispheric balancing model may not only explain Jewish survival in space but also in time, that is, the dialogical perspective for rearranging time is similarly grounded in Jewish hermeneutic pluralism. According to this the past would be reinterpreted, following Professor Albeck (see Zunz 1974), through the straightforward *peshat* (logical-rational) and the future would be constructed in accordance with the Cabalic doctrine of "*sod*" (mystical-secret). However, the development of this point is beyond the scope of this presentation.

In closing this essay allow me one final thought: I have introduced here a very hypothetical and probably idealistic model for interhemi-

spheric balancing. Perhaps it is not accidental that today many speak with yearning hope about the possibility of a better balancing dialogue between the Eastern and the Western hemispheres in our troubled world. In keeping with the fact that these issues of *Zygon*, in honor of Victor Turner, are devoted to the much needed bridging point between religion and science, between body and mind, and between René Descartes' "cogito" and Martin Heidegger's "Dasein"—maybe it would indeed be important to advance coexistence in the world by enhancing left-right hemispheric *harmony* instead of perpetuating East-West interhemispheric *agony*.

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