HOMO SCHIZO II

Human Nature and Behavior

by

Alfred de Grazia

Metron Publications Princeton, N.J.

Notes on the printed version of this book:

Library of Congress Cataloging in Publication Data de Grazia, Alfred, 1919-

HOMO SCHIZO II: Human Nature and Behavior Includes index

1. Psychology. 2. Medicine. 3. Human Behaviour I. Title.

ISBN: 0-940268-02-7

Copyright © 1983 by Alfred de Grazia

All rights reserved

Printed in the U.S.A. Limited first edition

Address: Metron Publications, P.O. Box 1213,

Princeton, N.J. 08540, U.S.A.

To Harold Dwight Lasswell (1902- 1978)

Almus frater magnus idearum

FOREWORD

My thesis here comes close to a remark once made by Mark Twain: "The human race consists of those who are dangerously insane and those who aren't." Humans, that is, are naturally somewhat crazy, by all definitions of that term among practicing psychologists.

A book on human nature, especially if it contains a theory of instincts, needs an apology. *The International Encyclopedia of Social Sciences* of 1968 carried no article on human nature. Its direct predecessor, the *Encyclopedia of Social Science* of 1932, did publish such an article, written by John Dewey, where he opined that social experiments might ultimately reveal the limits of what humans could achieve and tolerate; we hope that they have not yet done so.

Some 16,000 articles and reports in psychology were noted in *Psychological Abstracts* in 1979. None was grouped under the heading of "human nature." There was no such heading. In the area of information storage and retrieval, what is not indexed tends not to exist. Researchers usually follow marked paths. Lionel Tiger and Robin Fox presented a book on *The Imperial Animal* recently with nary a peep or growl about human nature, although, if I read it aright, that is precisely the subject.

My teachers at the University of Chicago, a fashion leader in matters intellectual before World War II, generally regarded the search for "human nature," and "instincts," too, as futile. It was the heyday for stressing cultural influences and cultural differences. "Human nature" was suspected of being a tool of conservative theologians and politicians. The ordinary man had made it a vehicle of his biases, his hopelessness, his social darwinism and his need to generalize, no matter how foolishly.

In respect to the concept of instinct, McDougall and Freud were influential. But the one by overclassifying the phenomena of instinct, and the other by using the term broadly and vaguely, aroused suspicions of it. G.H. Mead, in the vanguard of

imperialism for the concept of culture during the 1920's, substituted "impulse" for instinct. There came a period of "motivation," "values," and "drives" and now, too, one can see certain nuclear meanings that are handled by "reflexes," "genetic factors," and "genetic predisposition."

So the term "instinct," too, went by the board of *Psychological Abstracts*. A third term to which I refer often is "schizophrenia" and here, I am privileged to say, a computer printout of the *Abstracts* will convey hundreds of titles every year. As we shall see, however, "schizophrenia" is scarcely less diffuse and troublesome a term than "human nature" or "instinct."

To me the term "human nature" signifies the traits most distinguishing humans from other life forms. A model or system of behavior can be constructed of these traits such that their interrelations are perceived, along with the mechanisms energizing them. As will be observed from the chapters to follow, the half-million studies in psychology that accompanied the near demise of the two terms, "human nature" and "instinct," nevertheless changed what can and cannot be said about them. I may remark, as did Konrad Lorenz once, upon returning home from some American disputation over whether behavior was all learned, "I think I have taken some of the stink out of instinct."

Empirical research, both macroscopic and microscopic, now offers pertinent data in abundance. New perspectives are invoked. The study of the brain has made excellent progress as, for instance, in the comparative study of cerebral hemispheres. The French newspaper Le Monde, quoted a Delegate to the World Congress of Biological Psychiatry in 1981 to say: "Psychiatry will slip away from the psychiatrists if they don't want to do biology." Ethology and socio-biology aggressively pushing into the realms of anthropology and sociology. Chimpanzees have been house guests. Women have lived as neighbors to gorillas. More and more of animal instincts are observed to be subsumable under deliberate decisions and experiential learning. We have more systematic knowledge, as well, about the human social condition and what brings it about. Also, physical reconstruction of human nature has become theoretically possible, if some pronouncements upon gene-splicing, cloning, drugs, and brain surgery are to be believed.

Although many books are related to questions of human nature, few works attack the subject head-on. Almost all of these latter are old. They may come out of any field of knowledge, but usually emerge from philosophy, theology, anthropology, psychology, and political theory. The present work derives in part from twenty years of teaching political psychology and the sociology of invention, and from a decade of studying prehistoric and ancient cultures which were undergoing ecological disturbances and creating myths and legends meanwhile. It connects ultimately with a merged set of pragmatic, psychological and anthropological traditions that were especially well represented at the University of Chicago a generation ago. I am indebted beyond words to that community of scholars.

The sequence of chapters can be explained in a few sentences. First I seek a usable concept of the normal human being. I cannot find it, for it sinks into the quagmire of ideas concerning man as a rational animal. Thereupon I look for a description of the mentally ill today, and how they are treated. It appears that psychotherapy is seeking vainly to reduce bizarre behavior, but such behavior crops out in normal people too as their perverse inheritance.

So both the disturbed and the normal gyrate around a central complex of behavior (including mental activity) that is schizoid, and this schizoid complex cannot be reduced to "normal." The "normal rational person" is a fiction, undiscoverable in reality, unsupportable and misleading theoretically. The concept of "normalcy" becomes a portion of a statistical distribution of the population whose behavior is appropriate. Thus, a person who eats moderately is sane; one who is a glutton is sick. One who kills in self-defense behaves reasonably; one who kills in a religious sacrifice is mad.

Conventional behavior makes a poor key to human nature. A more workable key can be fashioned from the traits assigned to schizophrenia. Schizophrenia is not an aberration of human nature but a powerful and influential expression of the basic

personal and social format. It becomes especially conspicuous when social structures are displaced or destroyed.

I find that it emerges from a general genetic failure of the human instinctive system, a blocking of responses. This instinct-delay brings self-consciousness, a plurality of selves, whose disorganization imparts a continuous, unstoppable and ineradicable fear. The fear transforms into a drive for total interior and exterior control. There occurs a set of strategies for coping with the fear. Language and science coordinate the strategies. The ideas of the good, true, and beautiful that eventuate convince the human being that, if not a divine creation, he is at least the monarch of nature.

An analysis of human nature is likely to prove pessimistic. Although it may deny "original sin," it uncovers too many lapses and contradictions in human behavior to conclude with a happy prognosis. Nonetheless, I cannot but feel that the biopsychiatry of *homo schizo* presents human nature in a perspective which scientists and philosophers will readily comprehend. From understanding to research, and then on to description, and finally to applications is a familiar path in our times.

Alfred de Grazia

TABLE OF CONTENTS

Foreword

I. The Normally Insane

Cultured Mammals; The Ideal Person; Self-Awareness; The Human Disease; Symptoms of Mental Illness; Reconciling the Normal and Abnormal; Therapies; Genetics: Are There Hominids Among Us?

II. The Search for Lost Instinct

Self-Fear and Self-Control; The Sense of "I am", Existential Fear; Instinct in Man and Animal; Poly-ego versus Instinct; "You Can't Go Home Again."

III. Brainwork

The Animal Basement; Location of Instinct-Delay; Handedness; Order and Disunity; Memory and Repetition; Psychosomatism.

IV. Displacement and Obsession

Displacement; Time and Remembering; Obsessions, Compulsions; Habits.

V. Coping with Fear

Omnipresent Fear; Physiology of Fear; Guilt and Punishment; Aversion and Paranoia; Ambivalence; Anhedonics; Catatonics; Orgies and Holocausts.

VI. Symbols and Speech

Silent Symbolism; Anatomy; Neurology of Speech; The Structure of Speaking; Vox Publica; Cultural Discipline and Speech Divergence; Inner Languages; Ideology and Language.

VII. The Good, the True, and the Beautiful

The Muddle of Mentation; The Omnipotence of Thought; Secret Words and Panrelationism; Rationalization; The Dissolution of Logic; The Uses of Public Reason; The Security of Consensus; Causation; Time and Space; The Cost of Losing Magic; Science as Instinct; Sublimation as Preferential Displacement; The Origins of Good and Evil.

Epilogue

Footnotes

Index

CHAPTER ONE

THE NORMALLY INSANE

Niccolò Macchiavelli, the clear-headed founder of modern political science, was not above a little harmless hallucinating:

When evening comes I return to the house and enter my writing-room, and on the threshold I take off my everyday clothes full of mud and mire and put on royal and court robes, and properly reclothed I enter the ancient courts of the men of antiquity where, received by them affectionately, I pasture on that food that alone is mine and for which I was born, where I am not too timid to speak with them and ask them about the reasons for their actions; and they in their courtesy answer me; and for four hours of time I feel no weariness, I forget every trouble, I do not fear poverty, death does not dismay me: all of myself I transfer into them [1].

This is acceptable behavior. The relatives of a young farm lad who behaved so would think him rather mad. An atheist regards similar behavior in a working priest as a typical and appropriate feature of the great delusion of religion. It verges on the delusory, the megalomanic, the impractical, the hallucinatory. Abandoning the living to identify with the dead; treating words as voices; speaking to several people a thousand years apart in defiance of time and space. The genius of Machiavelli lay in his ability — cultured or genetic— to abandon himself to his mad world and afterwards to return to everyday chores, but more than this, to draw upon his conversations for writing that has been for several centuries a by-word for realism and the scientific approach to politics.

Identification — a set of projections of himself to a wide net of characters—and control, the ability to grasp them and organize them within his personal ego system: we see these qualities fairly sharply. But we also see a typical syndrome of human nature — the conventional and the alienated rubbing shoulders, so to say: the security blanket of his authoritative clothing that

admitted him to the great company; the compelling obsessiveness to tie his life experiences into the mainstream of his culture; as well as the other qualities which I have already labeled. Thus does Schizotypicality crop up in Machiavelli.

A book could be easily filled with material to show that "People do the strangest things." It is not difficult to prove that all humans are a bit crazy. Quirks, exhibitionism, phobias, dizziness, hang-ups, depressions, avoidance, suspiciousness, acid stomach, fear of abandonment, nightmares and other symptoms of stress and troubles of the mind abound in ordinary experience. To have psychological problems is normal, even universal. "Do you know, Martha, I think everybody is crazy, except thee and me," said the Quaker to his wife, "and sometimes I'm not so sure about thee." Most people can joke about the prevalence of psychic disturbances. "It's a funny world." And it takes but a minute to get them to agree that politics, the world of public affairs, is a circus of abnormal behavior. An informant of the F. B. I. in the Abscam exposés, which recently disgraced a number of American officials, repeatedly declared on network television that "congressmen are crooks, perverts, and alcoholics."

I do not intend to fish in these shallow waters. Down deep the big fish swim. There we can expect to locate the monstrous forms of an idea, that the human being is essentially and normally "insane," that what we call normal human thought and behavior are derivatives, vitally important to be sure, of the same schizotypical core that manifests itself in those whom we label insane. If everybody, at some time, acts a bit crazy, it is not because they are departing from their normal human state but because they are reaching for their normally insane nature.

Of course, then, the term "insane" should have to be dropped. "Insane" is a deviation from a standard, that of "sanity." If the standard is "insane," then the deviations must be something else—sanity? It is uncomfortable to say so, but, yes, in a way, although and until a better term should be found. For the insane of society are no more fixed and pure representatives of the core of human nature than the sane. All of humanity, sane or insane, normal or abnormal, typical or untypical, forms globally

around the core of human nature that we can best describe with the word "schizoid."

Human nature is a set of qualities to be found only among people. Of course we must keep a wary eye on the animal kingdom and its curators, the ethologists, who persist in finding identities between animals and men where once only large differences were thought to exist. We must avoid saying what is human nature, only to find that it is animal nature as well.

At the same time, we cannot get around the fact that our chromosomes and culture manage to fashion hundreds of differences between animals and humans. No matter how close the similarity, no animal trait is precisely typical of humans. We differ in every way conceivable, just as, for that matter, humans differ as individuals in every respect, no two people being alike. Withal this book must confine itself to those qualities which are both distinctively human and important as such.

But, granted that a quality may be proven distinctive, who is to say that it is important? We must say, partly begging the question, that what is important in human nature is whatever has the greatest effect in producing those human traits and activities that we regard as most important. This leads directly to the human mind; the nub of human nature is in the mind. In the "minds"— because, whatever the propensities of the individual mind, the human species does not exist except in transacting minds.

We have then before us *homo sapiens*. We declare that we shall make of him more specifically *homo sapiens schizotypus, homo schizo* for short [2]. We would strip from our tunics the noble title of *homo sapiens sapiens*, which is often now accorded us, reserving it for a species of some future event and time. So drastic an action may not be taken, however, without due process of law, and our book is intended as a hearing on the allegation that *homo sapiens sapiens* not the "wise wise" man and cannot by nature be so.

What is the nature of *homo sapiens* that he should be relegated to the status of schizotypicality? According to Pascal, "Men are so necessarily mad, that not to be mad would amount to another form of madness." Mainly the nature of the human is that he is either normally insane or insanely normal, or both. If either or both, he is not the man we thought he was. Whereupon we should analyze his nature more critically than has been the custom, and learn what makes him behave so, and what we can expect of him. Dunbar points out that "Through the study of the unusual or deviant, the obscurity of many normal processes is penetrated. Just as the mutant is the ultimate ancestor of the race, so the deviant is often the common denominator of processes too complex to be broken down in the norm."

In searching for the roots of human nature, I have to use a number of concepts that are modern, psychiatric, and originally invented for the diagnosis of disease, beginning with the very word schizophrenia. However I also use the terms of old science, like human nature and instinct, and the jargon of the computer age, and of electricity and politics. For the assault upon the problem of the human constitution and its origins levy verbal troops from everywhere. If the assault is successful, there will be time enough to provide these with the linguistic uniform that new science invariably prescribes.

A first step, then, is to show how homo sapiens is insanely normal, implying paradoxically that the concept of normality is quite confused in practice, and ends in contradictions. It cannot then be a helpful idea, if its meaning collapses from one moment to the next. It is like a tall pole without a base, which can stand upright only so long as you steady it; nor does it matter where you stand to steady it.

"Normal" is an interesting word of the 18th century Enlightenment; it is a late arrival to our language. Its function was probably being served before by words such as "good" and "healthy." It comes from geometry hence science, directly from the Latin *norma*, the right angle rule used in drawing. From "rule," came "mold," "unit," a point of comparison. Then a century later "normal" came to be a state of a living being or an organ which is not affected by any pathological modification,

as in a "normal human oral temperature." Later it acquired the senses of "devoid of exceptional character," "conforming to the most frequent type" (typical), "occurring according to habit," a "normal person." So we see an object needed by the new applied physical sciences which is expanded abstractly to include a model or verbal rule; already it is forcing its way as an objective concept into the moral sphere; then we watch it attach itself to an undiseased state of a living being (which concerns us here) and ultimately to the statistical type or the ordinary (which we also consider).

The problem when the world deals with human nature becomes apparent: the non-pathological state, and the ordinary or typical, are mingled in the idea of a normal human being. The normal person should be of the normally healthy majority. The trouble is that there is neither a normal standard state, nor a normally healthy majority. On those matters closest to the important code of human nature, we cannot decide on what should be termed "non-pathological." And on even those traits which are conventionally deemed healthy, we cannot find a great concentration of individuals to cluster.

The normal engages the range of the abnormal, even some of its extremes, and the abnormal is a set of improvisations on the normal. We do not deal with a rational person of healthy mind and then someone who is broken down into insanity as with a bad fall off a bicycle. Rather there is the human being whose essential functions are the same, *homo schizo*, who is always behaving "madly," but as one of his defense mechanisms divides people into the sane and insane according to largely societal canons.

The prudent approach in these circumstances is to locate a foundation for normality. By all tokens, it should be in the idea of sanity. The human species has to be composed of normal sane people; else it is a contradiction in terms. But suppose that we find mostly insane people; then something is wrong with the definition of insanity, or of normality. So we go in search of the normal great majority of sane human beings.

To define who is normal is not like sounding the concert pitch for the orchestra. Various writers emit their own authoritative sounds, and these and many others bring in their peculiar instruments, whose construction and qualities defy brief classification. There are those for example who offer an anatomical definition of man. They measure heights, head shapes, dentition, and so on. They have a rather precise job. For they know in advance that they are dealing with contemporary man. They can categorize sub-races, sex differences, blood groupings, and ranges of variation on many other traits.

They know that some people have small brain cases but are observably intelligent. They know that the Congo Pygmies are human, although a foot below average in height and their brains are smaller, but they have a reputation for unusual cleverness, complex polyphonic music, a large repertoire of legend, and great skill in hunting; they intermarry with tall neighbors of different race. There have been giants on the earth, too, bones and records tell us, and legends have them "normal," though on occasion more "wicked" than the storytellers — just very big. Many others traits vary around the world and within peoples: hairiness, skin color, eye color, head shape, etc.

CULTURED MAMMALS

Today we are witness to rapid progress in the knowledge of brain and central nervous system chemistry and electricity. Soon we shall be able to define every mental aberration by a test result showing a surplus or deficiency of a chemical or gas or electrical charge in critical locations. This achievement will not define human nature but will certainly facilitate efforts at controlling behavior deemed sick or criminal. The normal may thus be precisely measured. Moreover, those elements of the abnormal that are regarded to have positive value, that is, those elements of the abnormal that we seek to make normal, such as "altruism," or "intelligence," or "dexterity," can probably be manipulated electro-chemically so as to produce specifically acceptable behaviors within a larger set of undesired behaviors.

Try as we may, with dozens of testing instruments, we cannot find a genetically non-miscegenable, intellectually inferior (or superior), uncivilizable, ungodly, mother-marrying, physically defective, short-lived, crawling (or arboreal) unselfconscious, mythless breed. We find genetic sports, who are six-digited specimens, brain-damaged, sickle-celled, or have prodigious IQ's, and so forth, again all among normal human groups. A host of human variations exist, none of them obviously in fundamental contradiction to normalcy, either as usually defined or as schizoid normal. When a person has suffered some neurological disorder or brain injury, none can object to his being labeled sick—mentally ill, if his voluntary behavior is altered — and, even though the injury has effects much like that of ordinary psychic abnormality, and even if his treatment, too, is that tendered the mentally ill, we perceive the case as exceptional and as another class of illness.

Sometimes we get the impression that the animal kingdom supplies a baseline for normal behavior in humans. To be called "a healthy animal" is ground for pride in some quarters — images of exuberant spirits, strong musculature, and high sexual potency come to mind. Everyone has his favorite animal story to show how human a beast can be—whether a dog, a cat, a pig, or a bird, not to mention elephants, octopus, dolphins and monkeys. And it is generally true that well-cared-for animals are healthy and not crazy, while demented humans do not seem to take proper care of themselves, being often enfeebled, unkempt, and of ungovernable or poor appetite.

Ethologists, who lend animals their full attention, are often taken in by their charges and come to see in them all too much conduct that is human. Still it is to be admitted, as the latest returns from the field come in, fewer and fewer human activities lack a close analogy or counterpart in some other species. One after another, the "unique" traits of *homo sapiens* are washed away. Chimpanzees talk, flatworms reason, seagulls adapt, the devoted dog performs religious rites before his god, the ordinary biological cell contains the human code of life.

The best that can be said of man is that he does more of everything and does it more consistently and continuously. And the best of human performers are mad, for is it not true, what Lombroso said, that genius and madness are akin, that only by his product is the creative genius released from the burdens of the unsuccessful madman? It is certainly true in politics. In the benighted United States, a man who drinks his urine and bathes in it is locked up, while in India, not for that, of course, he may be Prime Minister.

"Of the 113 geniuses that have most helped civilization, 37 percent to 40 per cent were psychotic, 83 per cent to 90 percent were psychopathic or sociopathic, and 30 percent of the most important were committed." So says Johnson [3].

All the figures are questionable, including the 113 to begin with, but nevertheless impressive in the round. Painstaking investigations of cultures, from the deep forest primitives of the Philippines to the penthouse dwellers of Manhattan, bring to light only cultural forms that are readily analogical, even homological, with all other cultures. They can all become the life style of whoever happens to become engaged in them from infancy. This transferability, universality, and relativity of culture, is highly important to the definition of normalcy. It enables one to say that whatever may seem to be abnormal behavior in one culture will be found to have a normal place in some other culture. Properly directed hallucinating is a gift, or a symptom of insanity, according to cultural norm; in a doubting and liberal culture, as for instance the United States today, one may discover even psychologists who cultivate hallucinating, for religious whether reasons, adventure. or selfexperimentation. Practically every symptom of nervous disease disappears into the tolerant maw of culture.

Intercourse among uncles and nieces is taboo in some cultures while in other cultures uncles teach their nieces how to copulate. Judging by its lurid prominence in writings, an instinct to commit incest seems more likely than an instinct to avoid it. Most commentators have viewed the stern injunctions against incest that are so widespread as proof of the intensity of the instinct. Yet N. Bischoff argues a propensity to avoid incest, which is not strong enough "to determine but only to motivate our behavior" [4]. Thus, we are free enough to act contrary to our nature; but we are not free enough to do so with impunity. Individuals are not transferable so easily in practice as in

theory. By the time their abnormality becomes developed, they are too encrusted with the rest of their culture and too enmeshed in their failures or careers to make a computer date *via* the Human Relations Area Files with a culture normally harboring the abnormality. So they appear to be condemned to being treated as sick.

SAMPLING FOR THE NORMAL

Perhaps, however, one's society is changing, and one may discover a niche of acceptability. The poet Oscar Wilde was a public homosexual ahead of his time. He was jailed. Today he would meet only with mild, and extralegal, disapproval in his mating habits. English law has changed, following upon a change in elite opinion.

People are not at all sure of behavior occurring within their own cultures, whether in Singapore or Chicago. "You can't imagine the things that go on!" a tendentious paranoid third of the population will tell you. And they are correct, even if their attitude can lead to some undesirable social distrust that pulls at the weak fabric of social consensus. There are many kinds of abnormal "things that go on," conspiracy, for example, as when gangsters, politicians, businessmen and any other group for that matter plot actions better kept undisclosed, for tactical or moral or legal reasons. There are undisclosed criminal offenses, to which the American people confess in great numbers to priests, psychiatrists, and interviewing strangers. It appears that nearly everyone has committed at least a couple of crimes that he knows about and can recite.

Of the conspiracies and crimes, a great many are moral in nature. Child-abuse, spouse-abuse: these are examples. Millions of such cases occur; are they normal behavior? Are they crime or illness? Or both? Benevolent associations and fiction writers try to catch up with them, and the latter at least win only a reputation for caricature and morbidity, harping upon the "abnormal." Not foreseeing how uninhibited literature would become, a French writer, Jules Barbey d'Aurevilly, addressing himself to famous writers, in his short stories about diabolic women of a century ago, said: "Ask them how much incest is to

be found in families, whether of the poorest or highest class, and see if literature, which is accused of being so immoral, has ever dared to tell of them, even to frighten the reader," complaining that one had to go to the ancient examples of Myrrha, Agrippina and Oedipus, although, all around, there were cases to be found.

But then there is the category of abnormalities called madness, or mental illness, which the legions of science strive to segregate from acts of conspiracy, immorality, and crime. Possibly they are moved by an instinct of territoriality—for without a field of study there cannot be a fat herd of scientists. More largely, they are searching for their identity in their object, as a shepherd in his flock, a priest in his parishioners.

We cannot speak individually to a whole people, asking them whether they belong to the psychiatrist's flock. But we have learned to sample a population, assuring that those sampled truly stand for the whole, and we can interview these. Perhaps here the search for the normal person can end. If there is anything that is uniquely human and normal to mankind, it will have emerged from the great factory of the mind to find its way into the communication of ideas, thoughts, and feelings. All other normality can be consigned to our generic kinship with apes, fish, and bacteria.

The result of such surveys of mental health gives scant comfort to expectations of normality. They disclose more people to be sick than well, many more. And if one adds to the self-confessed illnesses, the sickness that is not disclosed, because of the suppression of recall or the inadequacy of the questioning, the scene darkens and many more of the normal become abnormal.

In one study of sample of householders of a rural Canadian count, as many as 69% were deemed to be psychiatric cases [5]. Most others had troublesome mental problems. Only 17% were classified as "well." To be "well" then is to be statistically abnormal.

In a middle-class white section of New York City, a different sample survey of mental health was conducted [6]. Here 1660 adult residents were interviewed at length by trained workers and the materials adjudged by psychiatrists. Some 18.5% were deemed mentally "well." A third had mild symptoms, and the rest, about half, suffered moderate or severe symptoms of mental illness. Again the "well" or "normal" are statistically abnormal.

Other studies can be cited. A recent World Health Organization report gives a figure of 40 millions for the gravely sick of mind in the world; another 200 millions are too ill to function well. One in every six Englishwomen is receiving care for mental disorder, one in every nine men. Deliberate self-therapy must treble these figures. Then, too, people go in and out of treatment, self-administered or not. A third of the American population, where hallucinations are neurotic or psychotic, nevertheless hallucinate from time to time. From one-third to one-half of normal persons aged 12 to 35 years report episodic symptoms of dissociation or depersonalization. A third, not necessarily the same two-thirds, suffer neurotic anxiety or worse. Practically everyone engages in psychosomatic illness from time to time. There appears to be little doubt: the normal is abnormal and the abnormal is normal, statistically, intraculturally and crossculturally.

When one adds up the diagnosed ill, the ambulant ill, the suffering normals, the individually destructive, the sexually different, the genetically abnormal, the culturally and criminally diverse and perverse, the infantile and the senile, and proceeds to some type of summation the remainder, if they have a strong sense of normality, can be classified as megalomaniacs.

Feeling bad is the norm, in one or more of a thousand ways. Mental suffering must be on an immense scale throughout the world. The "normal" human being is not the healthy animal he is supposed to be.

Throughout history, anxiety has been recognized as an inherent part of man's being. Discussion of the origins of anxiety has become explicit in the 20th century and is a frequent theme in today's literature. The definition of

anxiety is as varied as the experience itself, and its biological basis is obscure. While anxiety may be thought of as an unpleasant state, characterized by uneasiness and apprehension, it is also a strong motivating force in many forms of behavior and, like fear, has fundamental adaptive and perhaps evolutionary significance [7].

Perhaps the very idea of "normality" is a sickness. Psychopaths and neurotics often hate abnormality or atypicality in others, as Hitler hated gypsies and a meticulous drill sergeant may dislike a tall recruit who stands out from the line. One must consider whether the idea of the normal human is not some unrecognized myth, functioning to hold an individuated lot of persons in a tighter society. If so, we should dredge up the myth, for it may be blocking our understanding of human nature.

THE IDEAL PERSON

An obvious relative of such a concealed myth would be the idea of the "noble savage." Something like the idea of the "noble savage" is to be found going back thousands of years. The "Golden Age" of mankind fascinated many ancient historians and peoples. It was an age of easy subsistence, warmth, equality, and peace. The Romans associated the Golden Age with Saturn; they stored their weapons in his temple when at peace.

Upon the Age of Discoveries, from the 16th to the 18th centuries, and despite much evidence to the contrary, Europeans conjured a vision of happy primitive peoples living in a benign state of nature, even foregoing governments, taxes, war, and civil strife, to which the Europeans were habituated. Jean-Jacques Rousseau, whose deservedly famous *Confessions* frankly recited his many "abnormal," "neurotic" behaviors, played a greater role than any other writer in building up the myth.

He felt a compulsion to reveal his shocking evil and errors. He was the son of a watchmaker, an obsessive occupation, and was himself a musician. He suffered from paranoia, strong ambivalences, incontinence, phobias, hallucinations. He enjoyed being spanked on the rump. He believed his portrait,

though excellent, was part of a conspiracy to make him look like a monster.

Rousseau yet claimed that the human being was born with natural reason and good motives. In his educational writings, he argued that to confine or restrain the pupil was to pervert him. Anthropologists, while they could not deny the most astonishing "perversions" among the peoples whom they were newly studying, nevertheless added the idea of relativity: that is, if all is not good, then it is at least different and hence we must not insist upon our absolute standards of the good.

Rusticism, the belief in simple rural existence and its virtues, has been a chronic "neurosis" since times immemorial. One encounters the idea among people of all classes even, or especially, in America today, while only three per cent of the population are farmers; many politicians play upon the rustic theme.

Sigmund Freud, of all people, may be perceived, in his essay on *Civilization and Its Discontents*, to assign mental malignancies to the burden of discipline and complexity attributable to civilized life. He, at least, explains how impossible it is to take up the rustic life again. But he does not doubt that there was and can be a rustic life. And there is little doubt he regards the human being as potentially happier if ever he would return to the "normal" of his mentality. Given his many different writings, this can only be regarded as a contradiction and a minor nuisance, still it is capable of distracting him in his search for the origins and condition of human nature.

Psychologists, disobeying the first principle of science—factuality—have been loath to lay their cards on the table. "The mentally ill person, helped to discover the origins of his illness, will use the knowledge to cure himself, to become normal." So goes an ordinary principle by which many psychologists operate. Finding oneself, coming to terms with oneself, and similar slogans amount to the premise that there is a normal human self that is within us all, a core that, when struck, will resonate natural goodness.

Attempts to elaborate scientifically the syndrome of normality scarcely produce an integrated core of rationality, goodness, or creativity. They elicit conventional syndromes. They tend to bring out diffuse characteristics that are tolerable. It seems almost as if, in striking parallelism with the myths of the noble savage and the rustic, they are turning back towards a docile and agreeable hominid. Johnson remarks that "tests show that so-called normal individuals have little imagination, limited interests and social activities, limited aspirations, and no ambition."[8]

Gaillant presents material on life careers that reveal students testing "normal" to be less subject to illnesses that are of psychosomatic origins [9]. The finding is not soothing, for it points back to the association of creativity with mental illness, and lets one wonder whether normality is a "success story" blocking (psychophysical) illness but questionable as to the grounds of success, which can itself be grounded upon mental operations basically abnormal.

A schoolmaster or legislator might define the normal person as one who imitates well the norm, who obeys the authorities, who eats moderately, does not take drugs, sleeps well, fulfills sexual desires within suggested limits, accepts responsibilities when charged with them, has only appropriate fears and associates these with the real source of danger, is hygienic, loves one's family, is careful in dealing with strangers, feels gratitude, and believes in gods.

Not only are such persons unusual, but they do not constitute an integral psychological type wherein contradictions are absent. They, too, must be the results of high test-scoring on separate items of inquiry. More than this, however, is a fact which will be looming up as crucial to this book, that "normal" qualities, such as moderation, hygiene, responsibility, belief in gods and others as well, are qualities that are sculpted out of a basic natural "insanity."

In everyday behavior, there are clichés for every symptom of mental disease. Consider only the following. Others readily suggest themselves.

```
dissociation: "I'm not myself today." fear and control: "Afraid of her shadow.." "Get hold of
```

fear and control: "Afraid of her shadow.." "Get hold of yourself.."

anhedonia (masochism): "Suffering is good for the soul."
aversiveness: "Don't trust a stranger." "Keep them at arm's length."

paranoia: "The walls have ears." "May God strike me dead if..."

catatonic: "All things come to those who wait." "Rest is the best cure." "I hate to get up in the morning."

obsession: "Genius is 99% hard work." "I can't help but feel that.."

cognitive disorder: "Pray for peace." "Keep the family together."

megalomania: "Aim for the stars." "Nothing is impossible."

aggression: "We need law and order." "Equality." "National Security."

Each trite expression feeds upon a human dimension that also feeds general schizophrenia. Each can be linked to others, too. "National security" is a slogan with paranoic, obsessive, and fearful as well as aggressive nuances.

But is not "national security" also, at some times, in some places a reasonable demand, raised in defense against a measurable threat? Yes. I have said that it fits into a reciprocating scheme of madness and normality. It may be correct under the circumstances to arm one's nation. Should those who disagree, however, be categorized as insane, or merely as ignoramuses? And the pacifists? And, further, is it not the pride of the human animal that it can plan its "national security" far ahead of this day; and is it not true that it will be especially paranoid, aggressive, nationalistic-identifying, and obsessive characters who will be most insistent upon this human farsightedness? We shall say more of such matters as we go along.

The average person lives a life of "madness." Analyze his or her activities minute by minute in the course of the day. It is loaded with sleep (a life-suppressor); dreams (by definition insane) while asleep; waking fantasies of glory, sex, escape; guilt feelings; nursing animosities; feelings of inferiority; futile gestures; self-doubts; moments of mania; laughter; doing what "is bad for me;" reminiscing; praying; ruminating; brooding; projecting false pictures; making required and excessive purchases; repeating routines uncomprehendingly automatically; relapsing blank-minded; playing psychological games with co-workers and others — at the end there is a "product" which justifies the passage of the day, lends meaning, provides ego support if assured so sufficiently by others (whom one in turn assures also). Where the brutish activity of sleep and feeding and physically moving about ends, what must be human begins, but this human is almost entirely madness redeemed by defining "work instrumentalism" and "realistic appraisals of self and others" as sane behavior, perhaps 10% of the total of life.

Rarely, a scientific writer, (Harold Lasswell is one of them) will so much as frankly acknowledge that he is interested in advancing a certain kind of person in society, an "ideal man and woman," an "ideal citizen," in effect, whose etiological dynamics psychiatrists (and statesmen) should explore, understand, and propagate [10].

The "normal" is waived in favor of the "ideal." Indeed, one suspects that it is precisely in order to control the true normal population that the ideal norm is set up. He is what he is, not because he is a natural man, but because he might be artificially created to go against nature!

Lasswell speaks of the values for which humans strive. These are a type of instincts; they are generalized appetitive urges that crop out in many ways. The values are power, respect, rectitude, safety, wealth, well-being, enlightenment, and affection. The objective of public policy should be to develop the sharing of these among the people of the world. The means to the end is the creation of democratic characters who are willing and ready to share. "Failure to develop democratic

character is a function of interpersonal relations in which low estimates of the self are permitted to develop." Reminiscent of Alfred Adler's "inferiority complex," a prevalent low estimate of oneself leads people to wish to deprive others, thence misunderstanding and aggression, among a host of other neuroses and psychoses.

The democratic man, then, has an intact ego, open to thought and impression; is possessed of many values and disposed to share them with all. He is free from disabling anxieties and increasingly in command of the flow of energies from his unconscious self. Lasswell grants the difficulty of creating a dominating psychic type: "The task is nothing less then the drastic and continuing reconstruction of our own civilization, and most of the cultures of which we have any knowledge."

Lasswell frees himself from the rustic fallacy: a new kind of man is to be created, whose life is to be supported by especially designed institutions, a utopia, to be sure, but one unencumbered by dreams of normalcy and myths of a golden age. We shall see below whether, in fact, there is a potential within the human being to create or develop, much more to sustain, such a type. To Thomas Hobbes, writing several centuries earlier, the idea would be ludicrous: man is naturally conflictful, party to a war of all against all, and capable only of receiving a brutal regimentation by a sovereign. Indubitably, history bears down on this side of the scales.

Our arguments here against the prevalence of "normal people" are not intended merely to "broaden our minds" regarding normality; many writers have done this job well. Nor are we aiming to set up an ideal type, which has an elite that can create artificial normalities. We assert rather that the very logic, the very substructure, the very physiology of the concept of normality sought for as a base for judging abnormality is not present.

SELF-AWARENESS

What is there in the jumble of physiques, cultures, behaviors, in this preponderance of crimes, immorality and aberrations among the normal, that we can fix upon as unique to the human species, and that is found in the sick and the well, in criminals and judges, in leaders and followers, in Patagonia and Canada, in the first days of the human species down through history to the present.

The answer is well-known, and might perhaps have been written in the beginning. It is self-awareness. Whatever recognizes itself is human. Whatever can see itself without a mirror is human [11]. Whatever thinks that it thinks: cogito ergo sum, is human. Whatever doubts is human. But the ramifications of self-awareness are so many that they may be categorized in the dozens and detailed in the thousands. We need not go farther with them here. Essentially we can say that with a couple of possible minor exceptions, involving heavy training, animals and plants are not self-reflective: they may be conscious to any degree of sharpness, ranging from rocklike inanimacy to laser-like concentrations of attention.

Only by the most strenuous efforts can we deprive a human of self-awareness, and then only temporarily without lethal consequences, and without genetic effect. Never can a human maintain an alert consciousness without lapsing from time to time into sensations of self-consciousness.

Pause, for a moment, to consider the fantastically complex mind that is operating in a self-aware schizophrenic. The classical tell-tale symptom is the auditory hallucination, which the patient(1), describes to the doctor (or a friend) (2), as a voice of another (3), which the patient hears (4), and is the patient (5), talking to himself (6), and which the patient asks the doctor to believe (7), but also asks the doctor to deny (8), because he the patient is sick (9), and denies the voice is real (10), although he admits (11), and argues against the correctness of the message of the voice (12), which in fact we know (13), is not uttering anything at all (14), and sometimes the patient hears several voices speaking in unison (15..n), or uttering different messages (16..n).

Traits ordinarily attributable to human nature are derivatives from the basic fact of self-awareness. For instance, Aristotle's famous sentence, "Man is a social animal," seems to accord to sociability a unique human quality. Social, even political, behavior is characteristic of many animal species, and in a meaningful sense plants that must live in clumps can be termed social.

Going beyond this obviously inadequate characterization of man, we should also comment that this sociability, when it becomes particularly the human kind of sociability, has to be an appendage of individual self-awareness. It is not, cannot be, "herd behavior." Human individuation is rife within the human group. Regardless of how they are raised and trained, the style in which they live, and whether they are criminal or judges, moral or immoral, mentally sick or well, in or out of groups and crowds, humans are self-conscious. If not self-conscious in the immediate, flashing sense, they are coasting along with all the momentum of self-awareness imparted by the motive force of their total prior life-experiences.

Not only are all mental diseases diseases of self awareness, but also all mental operations, diseased or not, are inflicted or shaped by self-awareness. The ability to go mad is almost entirely human, no matter how madness is defined. And if, in the end, all that is uniquely human is exposed and one is prompted to exclaim: "But that is madness," we had better redefine madness, and medicine, and policy, and philosophy. Again, my position is not far from those psychotherapists who say that all mental illness is centered upon problems of the ego. It will take some paragraphs now to tell how true this is, and to begin to use the diseases of the ego to construe the elements of human nature.

CATEGORIES OF MADNESS

The redoubtable Cardinal Richelieu, ruling minister of France under Louis XIII, had said "Give me a sentence a man has spoken, and I'll give you enough to hang him." The same expression might end "...and I'll show you that he is demented." Nor have modern police-states been unaware of the new alternative. The Soviet government often prefers to treat political opponents as mad, rather than treasonable; the Chinese

communist government of Mao popularized the term "brainwashing," implying that its political dissidents had cluttered and dirty minds. The early Italian Fascists, more earthy and ironic, force-fed opponents with large doses of castor oil to purge them. Apropos, the French word for "asylum" has only the two meanings: "political asylum" for fugitives from a country's law, and a "mental asylum."

Our grounds for suspecting the ordinary person of some admixture of madness are already considerable. Indeed the very excesses of pursuing the distinction of being mad contain more than a hint of obsessive compulsion, prompted by self-doubts. Politics aside, what is the punitive and aggressive impulse to be called that drives men to segregate indistinct orders of people in order to call them by special names—anonomania? Nonetheless, our fidelity to scientific method bids us continue, this time reversing the order and asking, "What is mental illness, the class of abnormally ill and atypical?"

One may search for a classification, expecting to find an acceptable set of categories for ordering the millions of mentally ill for contemplation and analysis. No such classification exists, to our way of thinking. One can choose among many systems, each with its defects—too lengthy, too brief, lopsided, stressing any given specialist's area of expertness and giving him this as a reason for preferring it. Eugen Bleuler's scheme of 1911 is still influential, although by now encrusted with novelties and frills.

From Bleuler's work we can derive roughly two groups, one of organic lesions and strongly hereditary, the other less hereditary, with strong social components [12]. So we have a first list consisting of: congenital mental detectives; cretinism and idiocy; cerebral tumors; paresis; and senile dementia.

Then we have a second list containing: drug addiction; paranoia; hysteria; neurasthenia (obsessive-compulsive ideas); neuroses; schizophrenia; epilepsy; and psychosomatic disorders.

The first category can be excluded from consideration here because the elaboration required to integrate its components into our theory of human nature would take up too much space, and furthermore is unnecessary, since the second category leads us more directly to the points we wish to make. The second group has been of course heavily discussed so that, again, we may save time and conserve attention by omitting descriptions and comparative treatment. I exhibit the list only to say that the symptoms that constitute all of these diseases have in one way or another, and by some, though not necessarily most, psychologists, been dealt with also as symptoms of schizophrenia and will be so considered for our purposes here. Few if any of their indications exclude them from what can be termed general schizophrenia. Once we abstract and re-route the major symptoms of insanity, we find that a not-too-rare concept of schizophrenia can hold them all neatly.

Alcoholic intoxication simulates mental illness in many ways, beginning with the wide variability of its symptoms, a fact that has baffled attempts at its analysis despite the ready access to experimental and natural subjects. We note that fears, both existential and immediate, promote the use of this drug (and others) and that withdrawals from intoxication are often accompanied by panic; tranquilizers are sometimes supplied to reduce such agitation. A drunk may suffer distorted perceptions and cognition; slowed reaction speeds; hallucinations and "flights of fancy"; mania, recklessness, megalomania; depression; paranoiac aggression; change of roles and depersonalization; reduced bodily control; and heightened associational ability and creativity.

All mental illnesses may be encountered in some single episodes, it would appear: can it be that there is only one mental illness, and that alcohol can induce it? If so, alcohol must be pressing upon the core of human nature from all-around, not only figuratively but literally. Perhaps all instinctual responses are slowed down, and at the same time all inhibitions are overwhelmed by the stimuli to respond. So the stimuli roam throughout the brain, seizing upon any neural outlets they can find, riding upon any neurotransmitters that are available. Irrelevant behavior of many kinds ensues. Ultimately, the sleep

reaction is triggered in the "lower" animal sections of the central nervous system, there comes a significantly deep sleep, possibly death. Later on, much will be said to put psychosomatic illness in its proper place as a mimic of all mental illness, rather like alcoholism, so we shall not discuss it here.

THE HUMAN DISEASE

"Schizophrenia" is a widespread affliction. Its provenance is world-wide and has little regard for social class. Dunham reports its worldwide rates as "quite comparable," with a prevalence between two and nine per thousand [13]. narrow definition, of course, leaves us the task of showing that some 90% may be "schizotypical." J. Murphy also found comparable rates of indigenously defined schizophrenia (nonhospitalized cases) in Sweden (5.7 per 1000), Canada (5.6), and among Eskimo (4.4) and Yoruba (6.8). "Explicit labels for insanity exist in these cultures...Almost everywhere a pattern composed of hallucinations, delusions, disorientations, and behavioral aberrations appear to identify the idea of 'losing one's mind,' even though the content of these manifestations is colored by cultural beliefs" 14]. intellectuals are prone to the ailment; counselors at leading universities sometimes warn psychologists not to use their students as standards for psychological testing because they are skewed towards the schizoid.

The rates of schizophrenia rise with rising indices of social disorganization, according to many studies [15]. One might guess that "wherever anything important is happening" schizophrenia rates will increase, beware of a departure from "normal" routines (but we shall have to explore later on whether "routines" themselves are "normal"). Beware, too, of the masking of increased schizophrenia when the non-routine and important happens; war and religion are often ways of containing the increase in madness by legitimizing them. One percent of the American population is markedly ill with "schizophrenia." Since it is a gradient illness, the number may be defined upwards or downwards. Their family members may reach thrice this number, and are sorely disturbed and often

"infected" by them; the victims of the disease are outnumbered, so to speak, by their public.

Borderline cases are in the millions. Practically anybody who reads a piece on the subject (and literature on the subject reaches into the mass media) finds the symptoms uncomfortably close to home.

And, of course, we shall be insisting throughout this book that everyone who is human is schizoid, that is, a borderline case. But this requires absorbing all mental disease into schizophrenia and then reabsorbing all schizophrenia into human nature.

With all this interest, there is a little corresponding illumination. It is an exasperating mental illness. Its symptoms are so diverse and irreconcilable that many savants deny that it exists. They make and unmake classifications often so as to order the mental diseases by some abiding and knowable principle. Hyperclassification is a disease of ignorance. When a new family of phenomena is discovered (or admitted to discussion), be it mental illness or sub-atomic particles or geological strata, a plethora of terms and categories is excreted.

Hundreds of mental events are named. The names are kept until common causes are found to join their referent events or some control technique (therapy) compresses many into one. Six experimenters in a *Science* letter of April 1979 refer to "a valid clinical classification, be it Bleulerian or otherwise," as all that can be provided "considering the arbitrary nature of all presently available diagnostic criteria for schizophrenia." [16] In the end, Karl Menninger has explained, all attempts at classification have failed, and a single mental disease bordering upon the concept of "maladjustment" may be the answer [17]. We might call it "holopathy."

Yet other writers are convinced that schizophrenia not only exists but has a genetic basis: they claim that a special inheritance sets the stage. A family, a culture, and "the age of anxiety" can interact to produce a total stress upon the person sufficient to cause schizophrenia only when the genetic

component is present. It appears that the disease in its more perverse state involves a person who is likely to be descended from schizoids and who is subsequently helped towards his illness by a set of environmental influences that are well known and generally agreed upon. Such influences include parents or guardians who behave in a schizoid way towards the person. They also include a general breakdown of norms in the near-environment and even the world-angst as a whole. These provocative stimuli bombard the person from all sides and continuously over time.

- S. Matthysse and K. Kidd speak of a "genetic heterogeneity among schizophrenics;" the same genes may not be involved in all cases; about one in eleven schizophrenics has an extremely high genetic risk, over 99% [18]. Edward Foulks writes that "the predicted incidence in identical twins and in offsprings of dual matings is too low for a single major genetic locus model and too high for a polygenic model. An interactional model involving four alleles is the most likely mode of inheritance." [19]
- W. E. Bunney, who directs the National institute of Mental Health, probably offers the now-established view when he declares that "The issue... is not whether a genetic component exists, but how is the genetic component transmitted, and how do the genetic component and the environment component interact." A colleague who heads the NIMH Laboratory of Psychology and Psychopathology, D. Rosenthal, reports from a study of several thousand Danish adopters, that the adoptees typically pursue the schizophrenic or non-schizophrenic condition of their natural parents, not of their adoptive ones. "The genetic factor comes through loud and clear." But again the mode of transmission is unclear: "a dominant gene, a partially dominant gene, a recessive gene, or poly genes [20].

In his admittedly fruitless search for fundamental symptoms, Bleuler once wrote that it is the "accessory" symptoms that usually cause hospitalization, that is, hallucinations, delusions, disturbances of memory, changes in personality, changes in script, speech and physical functions, and catatonic behavior. Problems of "another person" talking in an abrupt, simple and important manner, and of excruciating body sensations in practically all organs, are common.

So all-embracing are the manifestations, that schizophrenia appears to engage all mental ills, as Menninger suggested. And Bleuler said of his work, "It may be that there is only one kind of mental illness, in that case the clinical conditions which we delineate would be artificial creations and there would be no corresponding boundaries in nature... the psychoses may be simple deviations from a norm in varying directions and degrees." [21]

The singularity of mental illness is evidenced in the shifting of symptoms from one named disease to another. What is diagnosed as manic-depression may, at the next examining session, be perceived as schizophrenia. "Thought disorder' is characteristic of all psychosis and not peculiar to schizophrenia."[22] A certain proportion of schizophrenes are not thought-disordered, while some, perhaps all, mental diseases can display thought-disorders. Thought disorder can be viewed as a problem of self-control, with anxiety or even terror accompanying it.

A pain in the head may transfer its site to the stomach functionally, that is, psychically but with organic consequences. Too, one practitioner suggests that "the basic physiopathology of schizophrenia is a lack of coordination of brain-functions all the way from the cortical cells to the process of feeling and thinking."[23] This idea is rendered more compelling by the congenital relationship between schizophrenia and humanization which is postulated here and developed in *Homo Schizo 1*. What seem to be contradictions are resolved when the primitive history of the syndrome is uncovered.

From the beginning, Schizotypicality has been the essence of human nature, and schizophrenia has been the thrusting spearhead of human nature. These were established as such when mankind was "quantavoluted." Their existence tends to prove that mankind was created in a leap, and not evolved point by point over millions of years. On one day, in one place, and under knowable conditions, the hominid was transformed into

the creature, *homo sapiens*, that perhaps should more properly be called *homo sapiens schizotypus*.

Thence, by understandable and logical processes of adaptation, domination and succession, this creature came to represent the human race and still does. Mind, behavior, and institutions veer towards the schizophrenic. Not only is the disease of great importance in society, but actual schizophrenia is only the eminently visible surface of a heavily schizoid world.

SYMPTOMS OF MENTAL ILLNESS

In the address already cited, Paul Meehl offers four sets of behaviors that altogether compose a full illness. One consists of recognized cognitive and perceptive disorders. A second is known to be ambivalence of love-hate, or pro-con, impulses and attitudes toward objects of identification and affect. Third comes the rejection of pleasure in any form (anhedonia). A fourth is aversiveness to other people, even and particularly those near and dear. Negativism and paranoia suffuse the symptomology.

I would expand Meehl's and Bleuler's list of symptoms and regroup them for our own purpose of coming to a focus on the core of human nature. An expanded list would at least contain all of these.

addiction to drugs ambivalence amnesia anhedonia aphasia aversion/paranoia compulsiveness depression displacement epilepsy mania multiple personality negativism/denial neurasthenia neurosis obsession perception disorders/hallucinations/illusions projection/blame psychosomatic disorders/functional physiopathy thought disorders/rationalization/delusions

These pathological symptoms will be associated with normal symptoms, and tied together, before this book ends, into the model of *Homo Schizo*, so that they may all be viewed as elements of human nature, emanating from the human core dynamics.

If the list is satisfactorily inclusive, the many facets of mental illness can be reduced to two key parameters, depersonalization or the dissociation of identify, and fears concerning self-control. ("Dissociation," translated from "desagregation," has been in the scientific vocabulary since 1889, when Pierre Janet used the concept.) Both are obviously and strongly connected with self-awareness, the central human trait.

Depersonalization symptoms (episodic) are reported by from one-third to one-half of normal persons aged between 12 and 35. They are usually classified under "dissociative disorders." If self-awareness is uniquely human, depersonalization must be the most human of all symptoms. Fear is omnipresent, for self-control is the problem of coping with self-awareness, the human trait.

I have already incorporated alcoholism into general insanity. Epilepsy, too, despite its lesser prevalence and exotic history, can be contained in the general syndrome of schizophrenia and homo schizo. George Steiner, in Language and Silence, writes: "In the early stages of epilepsy there occurs a characteristic dream. Dostoievsky tells of it. One is somehow lifted free of one's body, looking back, one sees oneself and feels a sudden, maddening fear; another presence is entering one's own person, and there is no avenue of return. Feeling this fear, the mind gropes to a sharp awakening."

Epilepsy often involves a double or multiple personality. From ancient times and around the world come reports of the "sacred disease" as it was often called. Seizure by a god or a daemon occurs; a feeling of being beaten by others is common. Certainly epilepsy can be considered a schizophrenic seizure. It is too severe to tolerate and apparently remits until the next occasion.

For another example, the symbolic process in humans is known (perceived and understood) as a map or tracking of salient coded components of oneself. Symbols tie the selves together and connect them with outside affinities. A dissociation and fear of oneself will produce and interact with disorders of signs, symbols, language, speech, writing, and reading.

We shall go much farther in this study, until all of the symptoms or diseases are perceived to generate under conditions of depersonalization and existential fear and theat. "Normal" behavior, too, can be fitted into both the symptomatic categories, where useful, and into the generating conditions.

RECONCILING THE NORMAL AND ABNORMAL

The symptoms of mental illness generally exhibit a relationship with normalcy in the adjectives that are used in describing them. These adjectives are often of a quantitative and comparative (or relative) kind. Thus Melvin Gray, cited above, says: "A 'healthy' person does not dwell unduly upon his body and his functions." We note the word "unduly." In many places, the textbooks and monographs use words of a similarly undefined character: "inappropriate," "bizarre," "harmful," "preponderant," "unreasonable, " "insufficient, " "disturbing, " "disturbed, " "uncontrolled," "unreal," "chronic," "beyond the normal," "interminable," etc.

If these are qualities of parameters of normal behavior, then we should expect the normal behavior to contain the same essential properties. Thus, "a normal person does dwell *duly* upon his body and his functions." Why does he do so? My intent here is to show that mental disease exaggerates, but mirrors, average human behavior. It is as my professor, Earl S. Johnson, told me

when I was a 15-year-old freshman. "Crazy people are like you and me, but more so."

Laing, Siirala, Arieti, and many other authorities view schizophrenia as a common sort of sickness shared by the healthy. The paranoid schizophrenic simply responds more to the hostile world than does the ordinary person says Arieti. In changing his position, as have others, from asserting that the schizophrenic interprets the world as hostile to saying that he sees the world fairly accurately for what it really is, Arieti resembles those, such as myself, who have changed from viewing the original basis of religion and primitive cosmology as grand delusions to arguing that there was, in addition to the nature of man, events that made the world terrifyingly hostile. One type of "normal" then who should be suspect is the incurable optimist who insists that the world is better than it really is. The "normal" says "please excuse the temporary confusion," whereas the "abnormal" says, "If things look confused, that's because they really are."

The issue arises whether normal behavior includes any important operation that is not reflected in insanity. The answer is negative. There is no human characteristic that cannot lend itself to a symptomology of mental disease. When one thinks of the hundreds of human traits, this generalization acquires impressive scope. What is salient, though, is that a definition of mental illness is readily convertible into a definition of human nature. The model of mental illness can be a model of human nature. Is it the only possible model? Is it the most useful model? The answer to the first question is "no," to the second, "yes."

If we list our symptoms of general schizophrenia, the all-human mental disease, we find that they include all of the most important traits of the human being. Opposite each parameter of mental illness we might place a parameter of 'normal' human nature (as in the accompanying chart) and in the course of this book much more of such will be done. This habit, "the great flywheel of progress," in the words of William James, may be shown to be indistinguishable basically from obsession, which is usually treated as a mental disorder.

Symptoms that are rooted in the same psychological complex take different forms in religious and secular mentalities. I indicate examples of this in the accompanying chart. Any religious sect or political ideology can be placed into the chart, so also any type of individual, varying the clichés, expressions, and attitudes to suit the case. Readers here may test their own self-knowledge.

As many as there are of these symptoms, just as many natural human behaviors can be found to correspond to them. Symptoms resemble the effects of the kaleidoscope; out of several bits of colored cut glass, a great many patterns can emerge when the tube is given a shake. In mental disease all of these patterns are called symptoms, and also often called diseases. The several basic mechanisms—the bits of glass—may not be recognized and known to the person playing with the toy.

Between insane and normal conduct are differences of degree. We can pair off the normal and abnormal, no matter how long the list. If it were not for the fact that many people are convinced that something exists called "reasonable behavior," we would have no problem in looking upon human nature as a set of core symptoms of qualities that are common to both the sane and insane. Then, since the insane facets of the quality seem to fit better to a description of human nature, the nature of man can best be analyzed by means of the concept of the insane. The denomination of the "sane" has been the prisoner of theologians and rationalists. The miasma of wishes, ideologies, ego defenses and rationalizations constitutes itself a schizoid syndrome, a cognitive disorder, to the end that the symptoms of normality are excluded from a formulation that would realistically distinguish human nature. Man does not really want to know himself; most of those who are regarded as specialists in knowing human nature do not want to know man either.

SCHIZOPHRENIC AND SCHIZOTYPICAL

Examples from thousands of evident cases of normal and abnormal common mental aberrations from the psychiatry standpoint found in typical human mentation.

Symptom category	Insane non- sectarian	Christian (normal)	Jewish (normal)	Homo Schizo (normal)
Fear	World destruction	Judgement Day	Holocaust or divine Annihilation	Self- destructiveness
Displacement	"I am a kind of god"	Jesus and Mary	Yahweh and Moses	Heroes
Cognitive Disorder (causation)	"If I say so, the building will shake"	When Jesus was born, God sent a star to guide the kings	"If we suffer it is because we do wrong in the eyes of God"	"Humans are metamorphosing into machines"
Hallucination	"They order me to kill and burn"	"God answers my prayers"	"The Lord attends our sacrifices"	"I must listen to my better self"
Human Aversiveness	"Danger is everywhere"	"All people are Incorrigibly sinful"	"Other people are unclean"	"You can't trust strangers"
Anhedonia	Self- flagellation	"In the footsteps of Jesus"	"To labor condemned after our fall from grace"	"Work is fun"
Obsession	"I must continuously wash my hands"	"Pray before eating"	"Dietary rules are to be strictly observed"	"I watch my diet carefully"
Illusion	"People know what I am thinking"	"God is on our side"	"We are God's chosen people"	Thinking machines
Logic	"The world is black as doom"	"Paradise has no night"	"Shoul is dark and dreary"	"Night and day are opposites, like men and women"

Having said this, we cannot now agree with those who maintain that sharp boundaries separate the well, the nervous, the neurotic, and the psychotic. Thus we have Jeffrey Gray saying that "by and large, quite different tests differentiate normals from neurotics and normals from psychotics; and psychotics do not behave differently from normals on tests sensitive to neuroticism, nor do neurotics behave differently from normals on tests sensitive to psychoticism" [24]. The tests involved are, of course, statistical, and therefore the scores must exhibit an overlapping among all three categories.

Now Gray would surely recognize the overlap. He would probably also assert that each category, in verging towards some cluster of responses peculiar to itself begins to manifest behavior which warrants its being labeled as normal, neurotic, or psychotic. None can properly deny this to be the case and this is precisely what we have been saying. For example, he says agreeably that neuroses are "fear gone wrong, either because it is excessive, or because it is inappropriate, or because it has no apparent object." "Fear gone wrong" is out of control. Certainly Gray would not deny that fear plays a major role in psychoses, or, for that matter, in normal behavior. Nor would he totally disagree with Alfred Adler when Adler declares that "the neuroses and psychoses are attempts at compensation, constructive creations of the psyche which result from the accentuated and too highly placed guiding ideal of the child."[25]

Nor perhaps would he deny Carl Jung when Jung writes that, in respect to treatment,

the schizophrenic patient behaves no differently from the neurotic. He has the same complexes, the same insights and needs, but not the same certainty with regard to his foundations. Whereas the neurotic can rely instinctively on his personality dissociation never losing its systematic character, so that the unity and inner cohesion of the whole are never seriously jeopardized, the latent schizophrenic must always reckon with the possibility that his very foundations will give way somewhere, that an irretrievable disintegration will set in, that his ideas and concepts will lose their cohesion and their connection with other spheres ofassociation and with the environment.

dangerousness of his situation often shows itself in terrifying dreams of cosmic catastrophes, of the end of the world and such things. Or the ground he stands on begins to heave, the walls bend and bulge, the solid earth turns to water, a storm carries him up into the air, all his relatives are dead, etc.[26].

We conclude that differences can and must always be discovered between any two groups professing symptoms. The differences are to be described in whatever way best contributes to devising a therapy or fitting into a model. The theory of homo schizo regards all behavior as symptoms and all symptoms as issuing from the schizoid core of human nature. We are still permitted to disclose genetically stronger tendencies in some people than others: some people are more "human" than others. I doubt that we can say that some "cultures" are more human than others unless it is discoverable that some isolated cultures originally branched off with a significantly lesser component of schizophrenic genes in the make-up of the group as a whole.

THERAPIES

Intense suffering often accompanies mental illness, a suffering as agonizing as the worst physical pains, as prolonged as the longest organic illness, more frightening than the worst tidings from the medical doctor, so hopeless as to lead sometimes to suicide. What of the cures, then, for insanity? Do they reveal anything of the nature of man?

I will not speak of cures that are madness twice compounded, a form of direct punishment for the sake of the punishers — confinement, beatings, ostracism, moral obloquy, brainwashing. Sebastian de Grazia wrote in two books of mental illness and therapy [27]. The preventative against most mental illness he found in love, of the early attendants for the infant and growing child, and of the community later on for the person. The latter evolves into the security afforded by "law and order," by ideology, by consensus and custom, by authority.

When he came to examine the systems of psychotherapy, he found at their base the idea of authority, often accompanied by

punishment in disguised or sublimated form. He was not obliged to distinguish sharply between the shaman of the tribe and the therapeutic psychologist and psychoanalyst: the main therapeutic message was nearly always a combination of exorcism by the authority of the healer and needed practical advice. Primitive, religious, and psychiatric therapies are successful, up to a point, because they wittingly or unwittingly treat the diseases of schizophrenia by the therapy of authority. Authority, as an obsessed compulsive force, is zeroed in upon the patient, who is comforted, appeased, re-rationalized and redirected.

The generally "benign" authority of psychotherapy stands in contrast to the authority that produces psychosis. In Bruno Bettelheim's words, "the psychotic person breaks because he has invested significant figures in his environment with the power to destroy him and his integration."[28]. He speaks in this work of concentration camps and psychological clinics.

If one abstracts the message of Michel Foucault in his book, Madness and Civilization, it says that the mad inspire madness in others, on a grand scale [29]. Just as the violence of war brings out the violence on all sides, madness elicits the madness of those who deal with it. Foucault deals principally with the period of the Enlightenment, when rationalization of human relations reached new heights. Consequently a methodology of therapy developed. Patients were shocked in order to "awaken" them. Theatrical performances were encouraged to let them displace their personalities upon acceptable or controllable roles. The "return to the immediate" was offered sometimes work on the land, physical labor, so that patients might divert themselves by exhausting emulations of the primordial struggle for brute survival. Travel was promoted—a mobile theatre, after all — to match internal with external turbulence, to provide culture-shock therapy. All of this was a gloss on the underlying punishment for the relief of the observing and suffering punishers, the wardens and the public.

Nowadays, the struggle to control the bodies and minds of the mentally obstreperous continues. Besides the punishers, there are the facilitators, one leader being Laing, who grants selfgovernment and "foreign aid" to psychotherapeutic communes, and the deniers, exemplary in Thomas Szasz, who finds in most definitions of insanity a political plot or at least a myth. How does the theory of *homo schizo* stand relative to the popular theories of Szasz, whose brilliant forensics (forensic medicine?) against psychiatry culminated in 1976 with a work called *Schizophrenia* [30]. There he labeled schizophrenia as everything and nothing, a myth, a practical fiction for the elaboration of new prisons, of new professions, of new religions, of new crimes against liberty and creativity, of non-science calling itself social science.

With sympathy for Szasz and for all the victims of unfeeling, unwise, and self-serving therapy (equally present in "organic" medicine?), I will say this: He believes that there is no disease, and therefore nothing to treat, whereas I say that this is indeed the human disease and we are all patients; he is Aristotelian, Cartesian, an orthodox rationalist and materialist whose sympathy for humans, undoubtedly genuine, is an inversion of Hobbesian materialism on the one hand and Thomistic Catholicism on the other. That is, he is an old-fashioned mind rejecting new fashions (call them "paradigms") in their own terms and disclosing their new contradictions. He has written a dozen volumes to argue that "abnormality" is "normality" but it is also wrong to conclude that "normality" exists in its rational conventional sense. There is no better way to show this than to go on with the theory of homo schizo, which I shall proceed to do.

Cure by professional therapy is still far from certain. Bleuler, long ago, wrote that "We do not speak of *cure but of far-reaching improvements*" for schizophrenia; he confesses to have never seen a full recovery [31]. A typical, almost randomly selected follow-up study of psychotherapy for schizophrenia today, this of 88 patients eleven years after a median 80-day hospitalization for therapy in Southern Canada, reports 12 deaths, 2 by suicide, and 51 recoveries (showing "no social or intellectual deficit"). Most had been medicated or readmitted subsequent to release from the hospital. Major tranquilizers and electroconvulsive therapy (ECT) were employed in some cases, heavy tranquilization alone in most.

Verbal therapy was not predominant, nor were therapeutic communities organized. Out-patient attention and job-assistance was available. The period covered was one of full employment, economic growth, and general optimism in the area [32]. We are accepting the premise that all patients were diagnosed properly to begin with.

Another type of evaluation, autobiographical, is provided by Werner Mendel, based upon the five hundred patients of his career in psychiatry [33]. He would not score so optimistically his successes, but rather finds that when his patients were sick enough to be very sick, they were most unlikely to be entirely cured. A patient might assume after prolonged intensive psychotherapy a typical social role, such as mother and housekeeper, but would on occasion require counseling and medication. It should be stressed that illness is a form of habit or obsession and that, as you would not expect to turn a lifelong blacksmith into a fine ballet dancer, you would not expect to typicalize a life-long deviant.

The situation seems improved, then, since Bleuler's times. Granted that the social setting is not producing the preventative antibodies, affection and authority, of which S. de Grazia writes, the professional therapy and social ambiance of mental illness have attained a cure in perhaps two-thirds of those treated, cure being a fair social and job competence with no more than occasional therapy.

Spontaneous remission (which means self-cure if it means anything) occurs in a number of cases. Where therapy has been administered, therapy may take more credit than is due. As the larger studies show, most psychological difficulties are self-treated, with the help or hindrance of whoever happens to be around.

Professional therapy today consists largely of reductionism. Reductionism is discoverable in the authoritative explanations of verbal psychotherapy, in communal security and "nests of toleration," hypnosis, tranquilizers, pain-killers, electroconvulsive therapy, physical restraint, and the less commonly used leucotomy (lobotomy). Surgery, drug, and

shock: these all seek to diminish and delimit the psychic energy of the sick, to shrink the ego boundaries, "to get out of Vietnam," so to speak, to "cut your losses." They can be used interchangeably.

Usually they *must* be used interchangeably. In psychotherapy there is scarcely ever a specific, a single shot in the bull's eye. Thus electroconvulsive therapy (ECT), which is applied generally by electrical wires to opposite sides of the skull, is certainly punishing: the patient is strapped down so as not to flail at the menace to his well-being. Patients can "feel better" afterwards if only because they have assuaged the guilt of their deviancy from social norms. ECT then arouses the cerebrum generally, drowning out "other voices," and alerting consciousness and arousing self-awareness. It brings temporary and sometimes prolonged amnesia of life experiences: the animal can begin life anew without the nagging of memory, even pleasant memory. The zones of sleep, appetite and sexuality are scoured. Hormones such as prolactine and vasopressine are made to circulate more freely. The cortisol level, which is elevated in 75% of patients suffering from depression, is lowered. The patient usually is relieved from the catatonism and morbidity of depression; he "lets himself live."

Common aims in therapy are to make the patient follow cultural norms, to be peaceful, and to suppress his symptoms: to act less human perhaps. Punishment is often implied, whether in verbal, chemical, or surgical cure. The lesions (wounds) of leucotomy, which removes cerebral tissue, tend to break up the disturbing "character-fix" of the patient; following the trauma, in the course of coping with the injury and reestablishing self-control, the patient often finds a new, more peaceful social character [34].

It is notable that some schizophrenics incur certain forms of atrophy of the brain. This is expectable, not as showing the organic origins of schizophrenia, but as an instance of self-therapy by psychosomatization. The suffering person performs his own lobotomy. He reduces his own personality structure. He performs a hysterical trephination. He devises a hysterical paralysis with attendant desuetude and shrinkage of tissue.

Only in certain verbal therapies, as psychoanalysis, does theory take a rationalist, Socratic position, that if one knows oneself, one can cope with oneself. It may be regarded as left-brain-hemisphere therapy, seeking to restore a person to the status of a thinking mammal, as contrasted to reducing the patient to a more hominidal equilibrium. Even here, the psychoanalyst and psychologist find themselves administering authority, willynilly, and relying upon it to cure.

Therapeutic methods, which may hold to distinct conceptions of mental disease, are likely in practice to become part of a melange. Thus Melvin Gray, arriving at the treatment of neurasthenia, a vaguely defined hysterical set, says "Multiple forms of treatment—psychotherapy, environmental adjustment, drugs, rest, exercise, proper nutrition, etc. — were and still are the best approach."

The general formula for psychotherapy appears to consist of:

- A. Break obnoxious habits of the patient to the point of docility (by authority, by uncovering traumas, by drugs, electrically, surgically).
- B. Re-instinctualize, re-program, re-educate, re-habilitate the patient to a less demanding level of life.
- C. Observe the patient's new behavior.
- D. Repeat A and B. changing the technique as seems indicated.
- E. Re-observe as in C.
- F. Reinforce prescriptions routinely until therapy is no longer demanded, indicated, or affordable.

These regrettably brief passages on psychotherapy have achieved their intent if they have exposed the prevalence of reductionism in dealing with aberrant human minds. For the object of reductionism is to get the patient back into the culture camp. And behind this objective is the realization that human

nature tends to be "irrational and ungovernable," not knowing naturally "what it really is," and that it is very frightened at its lack of control of itself or, may we say, its selves.

GENETICS: ARE THERE HOMINIDS AMONG US?

A great many traits are inheritable, among them some predisposition to insanity. W. R. Thompson states that "any chromosomal aberration produces a variety of psychological symptoms, including cerebral changes akin to minimal brain damage. This in turn, may result in changes in personality that dispose to many forms of abnormal behavior [35].

Over one hundred "errors" of metabolism are heritable, most bringing mental disturbances in their wake. The same writer refers to the heritability of sex behavior, musicality, introversion/extraversion, aggression, anxiety, attention to detail, social attachment, level of activity, emotionality, general intelligence (including some specific components such as verbal ability, spatial intelligence, word fluency, and numerical ability), and numerous motor traits affecting skills and athleticism. IQs shows high heritability, 70% to 80% attributable to genetic as opposed to phenotypic variance, and is transmitted via an estimated 100 genes (which may indicate the cloudiness and ethnocentrism of the concept of IQ). It is probably safe to assume that every trait has a heritable variable component; thereby we may be saved much memorizing of lists, disputation, and even research effort. Too, heritability can work with seeming contrariness. "Unaffected offspring of schizophrenic mothers included more conspicuously successful adults than were observed among a control group."[36]

Since mad behavior is variegated no two madnesses are alike either. We have already alluded to the genetic component in schizophrenia. Since some "one-third of the population suffers from excess anxiety" [37], and perhaps half of normal people suffer symptoms of depersonalization at times, and, as we have argued, other abnormalities of mind are abundant, and we are normally insane, the whole issue of heritability of insanity may well become a "paper tiger." All symptoms of insanity will have their demonstrable genetic referents.

The central problem of genetics in psychology may turn out to be the heritability of human nature itself. If our developing theory is correct, and all normal human behavior together with all mental illness descend from a schizoid core in human nature, there arises the question of whether this is a "genetic" trait. Is the peculiar function of the human brain the result of a mutation? If so, then the mutation would have small visible anatomical effect and one would be hard put to distinguish between the human and his immediate ancestor, especially were it to be his very mother.

Now the question of time enters. Has there been enough time since homo sapiens schizotypus evolved or quantavoluted to spread the human gene of self-awareness (if there is such) to all persons of the human family? Some persons have blue eyes, denoting a recessive gene. Some genes produce quantitative, not sharply contrasting, qualities, as for example the bone structure favoring high-speed running, or the gene transmitting skin-coloring instructions. Racial genes have not had time to diffuse around the world. Mammalian and other species can spread rapidly around the world; yet some remain isolated. The hominids australopithecus and homo erectus, predecessors, diffused through Asia, Africa, and Oceania, but have been conventionally assigned long periods of time to do so. We wonder whether the critical human genes have yet had time to be thoroughly bred into all going under the name of homo sapiens sapiens. We may not all be genetically prone to insanity. But, if so, this means that we may not all be genetically prone to humanness!

For just as culture can effect, and impose controls upon, insanity, it can govern hominidity. It is distinctly possible that some humans are genetically human—with the schizoid core that we are elucidating — whereas some humans, perhaps even most humans, are culturally produced in their entirety. If this were the case, it would be the greatest irony of all times! Unless a person could prove himself genetically insane, he would need to consider himself a hominid and bow down before the schizoid culture that makes him human!

I do not intend to solve this puzzle in this book, and indeed there may be no means of doing so. We cannot subject people to the ultimate test, which is to arrange for many small groups to be born and grow up wild, watching for the one group that may be composed entirely of Hominids to appear and behave like non-humans, that is, unaware, unanxious, speechless, and uncultured.

Notes (Chapter 1: The Normally Insane)

- 1. Letter to Francesco Vettore, 10 Dec. 1513, trans. and reference from paper of S. de Grazia, citing F. Gaeta, ed., *Nicolo Machiavelli: Lettere*, Milano: Feltrinelli, 1961, 304.
- 2. See Paul Meehl, "Schizotaxia, Schizotypy, Schizophrenia," in Arnold H. and E. H. Buss, eds., *Theories of Schizophrenia*, Atherton, New York, 1962, 21-45, 27. Here I use schizotypy, schizoid and schizo as interchangeable forms.
- 3. Fred Johnson, *The Anatomy of Hallucinations*, 1978, p. 29.
- 4. In Robin Fox, ed., *Biosocial Anthropology*, London: Malaby Press, p. 62.
- 5. Dorothea C. Leighton, et al., The Character of Danger: Psychiatric Symptoms in Selected Communities, III. N.Y.: Putnam, 1977, 56.
- 6. Leo Srole, *Mental Health in the Metropolis*, N.Y.: McGraw Hill, 1962.
- 7. John F. Tallman, *et al.*, "Receptors for the Age of Anxiety," 207 *Science* Jan. 18, 1980), 274.
- 8. Johnson, op. cit., 1978, citing Cole's Survey of 1970.
- 9. Quoted in Johnson, op. cit.
- 10. H. D. Lasswell, "Democratic Character," Glencoe: Free Press 1951; *Power and Personality* N.Y.: Norton, 1948.
- 11. George G. Gallup, Jr., "Towards an Operational Definition of Self-Awareness," in R.H. Tuttle, *Sociology and Psychology of Primates*, The Hague: Monton, 1975, 310-41.
- 12. Eugen Bleuler *Dementia Praecox or the Group of Schizophrenias*, 1911, J. Zinkin, tr., N.Y.: Intl. U. Press, 1950,

- 266ff, 304ff. Cf. Am. Psychiat. Assn., Diagnostic Criteria for Schizophrenia, 1978.
- 13. Dunham, cited in Johnson, op. cit.
- 14. "Psychiatric Labelling in Cross-Cultural Perspectives," 191 *Science* (1976), 1019-27.
- 15. D.C. Leighton et al., op. cit.
- 16. Farley, *et al.*, "Brain Norepinephrine and Dopamine in Schizophrenia," 204 *Science* (1979) 94.
- 17. K. Meninger, *The Vital Balance*, with Martin Mayman and Paul Prnyser, N.Y.: Viking, 1963.
- 18. "Estimating the Genetic contribution to Schizophrenia," 133:2 *Amer. J. Psychia.* (1976), 185-91.
- 19. "A Sociobiologic Model of Schizophrenia," unpubl. paper, March, 1976, 11.
- 20. The quotations are from the *National Observer*, March 6, 1976, 1, 14.
- 21. Bleuler, op. cit.
- 22. Meehl, see fn. 2 above.
- 23. F. Lemere, letter, 132:1 *Amer. J. Psychia*. (Jan. 1975), 86.
- 24. *The Psychology of Fear and Stress*, N.Y.: McGraw-Hill, 221-2 citing studies of Eysenck and Cattell.
- 25. The Neurotic Constitution, N. Y.: Dodd Mead, 1930, trans from 4th German ed. 1912, 219.
- 26. "Schizophrenia," in *The Psychology of Dementia Praecox*, Princeton U. Press, 1960, 180-1.

- 27. *The Political Community* (Chicago: U. of Chicago Press 1948) and the *Errors of Psychotherapy* (New York: Doubleday, 1950).
- 28. Surviving and Other Essays, N.Y. . Knopf, 1979, 29
- 29. New-York: Pantheon-Vintage, 1965.
- 30. New York: Basic Books.
- 31. *Op. cit.*, 258.
- 32. R.C. Bland and J.H. Parker, "Prognosis in Schizophrenia: A Ten Year Follow-up of First Admission," 33 *Arch. Gen. Psychia.* (Aug. 1976), 949-54.
- 33. Werner M. Mendel, *Schizophrenia: The Experience and Its Treatment*, San Francisco: Jossey-Bass, 1976
- 34. William Sargant, Eliot Slater, and Desmond Kelly, *An Introduction to Physical Methods of Treatment in Psychiatry*, N.Y.: Science House, 1972.
- 35. W. R. Thompson, "Genetics," 8 Ency . Britannica, 1973, 1149.
- 36. *Ibid.*
- 37. M. Gray, 90.

CHAPTER TWO

THE SEARCH FOR LOST INSTINCT

Most babies cry when they are born. If they do not, they are liable to receive their first spanking. This, say their attendants, will clear their lungs; it will circulate their blood; it will exercise their reflexes. It is good for them. This crying may be uniquely human. Calves, for example, do not cry when they are born. They lay stunned for a moment, and then gradually pick themselves up, pull themselves together, receive some licks, and crawl or stumble around. The mothers of apes drop their young almost disdainfully and hardly attend to them at first; the orangutan mother is more considerate, more human.

Perhaps babies cry because they are already more frightened than animals. A famous psychoanalyst, Otto Rank, found the mental state of the baby deplorable, and traced the major behaviors of later life to the trauma of birth. Some conscientious mothers even followed his line of reasoning to the point of giving birth by caesarean operation, thus assisting the baby's birth and relieving its pain of passage from womb to open air. I do not know that the effects of their altruism have ever been reported.

Dr. Rank, passing over the possibly similar plight of calves, babes of monkeys, and puppies, ascribed the most marvelous effects to the human birthing experience. He sees "in the birth trauma the ultimate biological basis of the psychical." Even the myths of the creation of the world, that are [1] told in many cultures, are regarded by him as a sublime attempt to undo the birth trauma and to deny the separation of the infant from the mother. Although everyone has undergone and many have later witnessed the radical experience of parturition, Rank interpreted myths and fantasies of the end of the world as wishes and efforts of the human individual to be reabsorbed into the great All and Oneness.

Further, "the Flood which initiates a new world period is nothing but a 'universal' reaction to the birth trauma, as the myths of the origin of the earth or the sea also show." Religion, creativity, humanness — all are to be attributed to the tragedy of parturition. No one is exempted. I think that he is reversing the order of nature.

Attacking the perinatal problem by another method, Stanislas Grof employed psychedelic drugs, particularly LSD, in seeking to learn of people's re-experiences of the earliest events of their lives [2]. He could identify four matrices of recollections. One expressed feelings of unbounded ease; another, frightful threat, confinement and torture; a third appeared as a struggle for survival and an ecstatic release; the fourth, a separation that seemed a kind of death followed by resurrection. These would connect with the physical sequence of natal events and incorporate analogous later effects. This is matrix (2); the unbearable and inescapable situation of the foetus, sensing uterine contractions while confronting a still-closed cervix, would and did engender visions of fear, plague, and natural catastrophe.

Lacking evidence that historical experiences can affect the germ plasma, we must regard these as visions of other life experiences, as secondary or derivative suggestions, and attached to the perinatal process by mental association. We do not deny that they originally occurred. Rather, when they did occur and were experienced and remembered, they reinforced the analogous perinatal feelings. And, if what we have said concerning Rank's theory is correct, the perinatal experience is a reinforcement of the pre-existing genetic fear of oneself that already begins with the foetus. Hence, a double reinforcement may operate upon the original fear. Every species, indeed every individual, has its own pre-existing structure for experiencing; experience is species-specific and organism-specific.

Otto Rank and Stanislas Grof are asking too much of the nasty surprise of birth. Rather, I should say, the baby is crying because, unlike the animals, he already possesses a kind of fear that they do not, and cannot, know. This is his existential fear, an anxiety sensed upon the realization of the existence of

himself. He is reacting to a harsh accident, true, but knows already this existential fear and is demanding immediately that he be relieved of it. He already has a frustrated Voluntarism, a will that he expects to appease by action. He is terribly frightened because he is already trying to put his head together and to find himself in himself, whereas the animals have merely to compose their circulation and limbs.

The infant already wants more than to fix upon comfort, although this, and food later on, will usually quiet him. Surely, given the option, the baby would prefer to return to the womb. But there, too, he may well have been frightened, not only by jostling and growth pains, but by the sense of the greatest problem of existence, how to form his identity. For his brain has begun to operate in the peculiar human way. He may be already indecisive, unlike the beasts, feeling that there is a decision to be made, and wants to do more than to wait upon the comfort of the nursery. Perhaps it is well to slap him if he does not cry: he should stop dreaming and come to attention.

INSTINCT-DELAY

The baby cannot realize his problem. He does not know that his instinctive mechanisms are blunted, blocked and delayed, and that he will pass his life in a mammalian vehicle, a jalopy that he must tinker with and fix up at every turn of the road. Luckily, he is to be trained immediately as a mechanic. Not for him are the joys of a long life of instinctive behavior, consisting mainly of speedy, replicating responses to specific stimuli.

The delays of instinct, touching upon the whole gamut of behavior, provide the human with a continuous fear. The instincts cause tension in their persistent efforts to complete themselves. At the same time, the person finds himself inundated by the tongues of instinct, lapping upon areas of behavior often little related to the original direction or object of the stimulus-response mechanism. The sexual instinct, for instance may emerge as Oedipal, romantic, homosexual, fetishistic, sadistic, aesthetic and/or aggressive behavior; rarely is it merely the highly relevant "display; hop on; hop off; go away" sequence that even higher animals perform.

The delay of instincts by a possibly genetic blockage is allimportant: it permits the chaotic creational flood to rush into all the crevices of the forming human nature. The retardation of his animal instincts is viewed as flexibility in the human's behavior. Human flexibility is both cause and consequence, therefore, because both the "decisions" and the follow-up activity are subject to delays in the central nervous system.

The animal world, by contrast, exists by instinct: events emit stimuli; instinctive reactions succeed or fail; the residuum reassembles amidst the continuing events. Almost never is the process punctuated by pauses to consider a dilemma. If its spasms of calculation fail, the animal surrenders to the inertial process. It falls back upon its collective line of defense, it breeds. The animate world can depend upon exponential reproducibility to render individual choice unnecessary for species survival.

Meanwhile the human creature depends upon what he calls mind or intelligence. He has not chosen to do so. He cannot do anything else. Would that he could, for his lot is fearful. His reactions blocked at every turn, if only for an instant, he lives in anxiety over the last turn, the present turn, the next turn, and all the ones he can remember or imagine or foresee. Stripped of ready instinct, he confronts an instinct-ready world. He is innately, individually, and culturally anxious, and the world he encounters is too large to cope with non-anxiously.

Terror drives him to act quickly, but not instinctively, and instinct is the quickest action. Why must he forever fearfully reflect? If, unlike animals, man has to make up his mind, there must be some unique quality in the mind. If two or more options rush into the open question raised by the blocked instinctual response, there is a conflict, an anxiety. Even if there is but a single and obvious solution, a pause to determine so can cause anxiety.

SELF-FEAR AND SELF-CONTROL

When the posing of options is continuous and inevitable, the very existence of a single mind can be doubted. The pervasiveness of choice and anxiety in the actions of the human being must signify that "ordinarily he is of two minds" about everything he experiences. "Two souls within me live, damn!" said Goethe.

Two souls may be too few. The well-known case study of Sybil documented sixteen different persons in a single human female, each conscious, aware, able, and resting upon the substrata of the other fifteen. Whatever the number, so long as it is more than one, it suggests that a third trait can be allocated to the non-instinctual, fearful creature, which is a multiple personality.

Called by another name, this is self-awareness, a kind of behavior that could never come about were it not for the fact that someone is asking questions of someone else. A self is aware of itself. "I think, therefore I am", wrote Descartes. Not quite, we say. Rather, "I recognize myself; therefore, we are." When, 3000 years before, Moses turned aside to inspect the fiery un-burning thornbush, he found there Yahweh who spoke to him saying "I am the I am" and Moses worried (says the Bible) about what people would say when he said to them "I am the voice of the I am that is the I am."

Because our selves share nearly identical anatomical housing and have highly privileged access to each other, for all practical purposes they are considered as "one in body and soul." In fact, the compulsion to be oneself is so suspiciously strong that no matter what the proof to the contrary, the self will always be the irreducible unit of human existence. Like non-Euclidean geometry and warped space, the poly-self will remain a theoretical construct, out of the realm of the common sense. It will help to understand human behavior, however, and have powerful applications in psychological therapy and law. It will, among other things, clarify an idea that is to be found in a many "primitive" and "advanced" cultures, that a person "possessed" is not to be treated as himself. So now we have the human

creature, living in a house of fear, governed by a committee, and acting accordingly in non-instinctual ways.

What is the agenda of this committee of egos? The agenda seems infinitely varied; it can contain anything in the whole world, internal, external, from a microbe to the stars, unlimited, too, in time or space. But the preamble to every item on the agenda is always the same: "This is a bill to control fear by..." So the human seeks control, first of himself, that is, of the committee: "This house must put itself in order." Then he must seek to control others; he must at the same time, just like a government, govern himself while he governs others. And, besides the others, he must seek to control the world, for he senses that not only these others, but also the whole world, threatens him and needs to be ordered. Something of this conduct of operations seems implied in Anna Freud's idea about the ego's "tendency to synthesis," as opposed to the fear of ego destruction, which she recognizes as an instinctual anxiety [3]. (I say, of course, that the ego was hardly there in the first place.)

Control implies power, the determination of the wills or behaviors of people and events. "Power is an ingredient in the transactions which take place within all object relationships and is thus an ingredient in the interlocking forces which determine personality," so declares Arieti. Veritably we may contemplate now a being that is instinct-delayed, poly-ego, fearful on both counts and power-driven: ecce homo.

Control is said to occur when someone determines the behavior of persons or things. The drive to control is a reciprocal of fear. All humans, possessing existential fear and self-fears, must seek control, primarily of the self. Very quickly in all situations the physical self becomes the arena of only a portion of the struggle for control. External objects and beings are also incorporated into the struggle. The self, others, and the natural world are the triple object of efforts at control.

The total of objects, both inner and outer, operate subjectively without discrimination. Whether a person feels he controls his temper or an empire, by physiological indicators of stress, or by any other tests, he is calmer and more relaxed. If he is insatiable in his wishes to control, the diminution of tension with success will be brief and shallow; his fears will cause him to move immediately to assume control in other spheres. Under no circumstances can the urge to control be satisfied.

Assuming that all humans are basically alike, rather than divided between those who are genetically human and those who are only culturally human (a question already alluded to), the challenge may be offered that women are less interested in control than men. This would imply, by our theory, that they are more instinctive, more unified and stable as persons, and less fearful. More hominidal, therefore? Less instinct-delayed? Such may be the case. There is folklore about "a woman's instinct." This special female capacity is a popular belief today. In the Western European Middle Ages, women were for a time denied a soul, until a Church conference finally decided the issue in their favor. A "soul" translates into the more active madness and suffering often characterizing males.

But it is suggested that for the time being we assume a close similarity of the sexes. We offer, as adequate and at least temporary justification, that women are generally forced out of formal control activities, that they operate "underground" for control purposes, and that, anyhow, an accurate and thorough inventory of control activity would disclose an equality of the sexes.

The absolute renunciation of control-needs and efforts is sometimes attempted. The cosmic indifference of Buddha lets nothing matter save finding nothingness. Once filled with nothingness, one will be at peace. All identifications and attachments are renounced in order to concentrate upon control of the self. With an elaborate strict regimen of diet and exercises, and by abstemious human relations, bolstered by a sophisticated rationale appeasing conventional philosophical demands, a mental balance is achieved that is distinguishable from selfishness, catatonism, or bestiality. Resemblances to autistic trances are present. The discipline remains severe; the drive for control of the world is not abolished.

A more than casual resemblance to the Buddhist outlook is to be perceived in Teilhard de Chardin's attempt to extricate mankind from its dilemma [4]. He sees the remedy as man's reflectiveness, enlarged greatly until the world is co-reflected in his mind in a universe of ultra-reflexion. This is a vague formula, but it takes on greater meaning when we ask what is Chardin's human dilemma. This, it seems, is a state of fear, which he describes abstractly: the great fear of the human species is to be closed in and lost in an unfriendly world, condemned to live with himself as a fixed species.

THE SENSE OF "I AM"

Identity and identification begin with the question of the self or ego. "Everyone is to himself that which he calls self," wrote John Locke, in discussing the idea of a person [5]. The self is "an object to itself," said G.H. Mead. The reflexive form reveals "that which can be both subject and object." This is what distinguishes man from animal, he argued, rather than the alleged possession of a mysteriously endowed soul [6].

Sommerhoff regards self-awareness as part of consciousness and, in his study of *The Logic of the Living Brain*, says that it is formed of "coherent internal representations of the physical self," hence also of the self's relations to its surroundings. "...The unity of the physical self finds expression in a family of characteristic transformation expectations the brain accumulates during ontogenesis." [7]

Sweeping in more closely toward the concept sought here, Hilgard declares, "The unity of consciousness is illusory. Man does more than one thing at a time—all the time—and the conscious representation of these actions is never complete." [8]

When the personality degrades to "a delusional chaos," some awareness survives. "Part of that total complex which we call the ego, the 'self, always remains alien to the delusions. This constellation accounts for the fact that the non-affected part of the ego may disbelieve and even criticize the delusions; on the other hand, the incorrigibility and the senselessness of the delusions are precisely due to the fact that many associations

contradictory to the delusional are simply not brought into any logical connection with it."

Building one's self is then every person's lifelong occupation. As we have said, he is driven by the fear of not being oneself to begin with. The self is a predisposition, but not a bequest, of nature. Indeed, it is never fully achieved. Man is always an infant in this regard. While apes grow quickly and soon act "self-possessedly", the human can grow in every respect but this, that he never achieves a single self. "The mature person is self-confident," by which is signified that his existential fear is under control and that he egoistically regards himself as one. A total lack of self-confidence results in a kind of vegetative existence, a sickness as grave as any; even the most elementary kinds of self-control disappear into incontinence catatonism.

Both "identification" and "role-playing" are in the area of the dispersed self. A "role" is behavior according to a social subtype, which is employed to escape insecurity by virtue of a more secure status. A role may be manifested as casually as a costume for the mardi-gras once a year, or as intensely as a permanent switch in identity accompanied by amnesia. Role changes are common in modern society; they are rare in simple communities, where a fisherman is son of a fisherman, but even there the person goes through life-roles such as adolescence or grandparentage, has a role in a church, and so on. Roles are culturally defined, often assigned, and when fully developed and effective, encapsulate the dispersed self, guarding and maintaining it against dissolution.

Identification can be attested in the assumption of a role, as the boy who identifies with his father, the fisherman, but can more broadly extend to all manner of being and abstraction. Thus one may detach some part of himself and affix it to an identification with the working-class movement, or with the Virgin Mary, or with his family and neighbors, or with a bird. Identification is associated with the wish to control its object; this may be difficult, for frequently ambivalence arises out of an obviously uncontrollable identification.

The self, though it may appear so, is not a social creation, as G.H. Mead and others would have it be. Man would never have a self, a poly-ego, if he were not structured genetically to engage in the search for self by a mind that has to be pulled together. Mead's work is completely intelligible and useful, except on this crucial point. It is significant that he does not seek to go beyond society and culture as the determinants. Meanwhile, he provides us with precisely those kinds of observations which we need, as. for example: phenomenon of dissociation of personality is caused by a breaking up of the complete, unitary self into the component selves of which it is composed, and which respectively correspond to different aspects of the social process in which the person is involved."[9]

He advanced and stressed the concept of "social roles," those social housings for the individual selves, and showed how small children could play games with their selves, as well as others, being now one kind of person, now then another—father, mother, evil one, good one, police and bandit, and so on. This author's grandchild was raised bilingually in Athens, and when playing with a toy car and policeman, would speak as the policeman in Greek, then reply as the car-driver in English.

Bleuler used the word "schizophrenia" to denote a split personality, merging the Greek words for "split" and "brain" or "heart," thus meaning more than brain. Schizophrenia was applied to madness of the disordered personality, and numerous mental illnesses received different names in the early years of psychiatry. Afterwards, it became fashionable to assert that one should ignore the etymology of the word, even ignoring Bleuler, for that matter.

The trend of my work, however, has been to extend the term in its literal meaning—that is, to introduce the idea of multiple "splits" — to extend it to cover practically all mental disturbances not attributable to organic and accidental lesions, whether congenital or post-natal, and to transform the disease into the elements of normal behavior, regarding normal individual and social behavior as specific resultants of certain adjustments to a natural schizophrenia. Thus self-consciousness

is what might be termed in the lexicon of psychopathology a form of delusional thought. To be human, then, is to be schizotypical, or schizoid. Not to be so—that is, not to be self-aware—is impossible, or is stupid in the sense of being of the hominidal species of the primates.

Again, all humans, including mad humans, are self-aware. Even in a case of severe catalepsy, self-awareness is evident. Bleuler reports cataleptics who can maintain the same position for months. But, as a patient is moved, his muscles flex and adjust so as to maintain any position in which he is placed. Normal children and hystericals will sometimes do the same, after being punished. Hilgard describes a hypnotised subject who can, as instructed, divide himself into two beings, one who feels no pain upon stimulation and says so, another who feels it and comments upon it.

The source of the phenomena of self-awareness is the dispersed selves. One would not know oneself unless there were at least two of one, the observer and the observed, the knower and the known, or, better, two mutually perceptive observers. In Hilgard's experiment above, he was able to elicit two speaking selves with contrasting points of view regarding a painful stimulus.

Since there is so much of the delusory in human nature, as Bleuler and many other students have shown, it occurred to me at first to regard self-consciousness only as a form of delusion. I think now that it must be reality and that the concept of the single self must be delusory, a kind of megalomania based upon an illusion of the dominating self. Just as the human sees one image with eyes that register bi-focally, so he mentates, especially when asked, as a whole, though his mind be operating eccentrically. Both neurological and psychological evidence of this will be advanced later on.

The ego is not singular. "It" perceives and exists as a poly-self. Any single self in the set is a sensed or perceived claim on an acting and behaving organic system in relation to or in conjunction with claims of others. A person is a system of selves, a polyself system. Ordinarily, people successfully

inhibit irrelevant material from enough of their mentation to assure others and cause others to believe that they are acting as a single or at most a self-aware self. Even too much selfawareness is a cause of disturbances, akin to disturbed behavior in the eyes of observers and in the concerns of the subject; suspicions are aroused; rapport is weakened. When persons begin to operate on several levels almost simultaneously, they are accorded various complexes by medical practitioners. Bleuler gave numerous illustrations of such behavior among his schizophrenic patients.

Hilgard's studies of divided consciousness by means of hypnosis expose a "hidden observer" or "co-conscious" as an ordinary concomitant of existence. This self among selves is not a monster, a "beast of the unconscious." "The concealed part sometimes turns out to be healthier than the openly presented self." [10] Expert though he was in hypnosis, Sigmund Freud fashioned his theory of id-ego-superego from classical social psychological theory, from Plato's Republic (I argued in a paper of 1949) rather than from experiential materials readily available to him. He thus may have posed the wrong parties in psychic conflicts. The polyego concept is structurally and biologically manifest; it can be the subject of experiment; it can be operationally described.

The origins of the poly-ego, the core of human nature, must be in neurological transformations at some time in the past. Here we assume the poly-ego to exist, leaving its ancient origins to be traced in *Homo Schizo I*. Sufficient for the moment is the hypothesis that when this transformation occurred, a number of critical innovations occurred with it, enough so that we can assume a quantavolution of creation, a Hologenesis. Human nature came all at once. As the first humans experienced for the first time a poly-ego and have until now repeated the experience with every new person, we look for a massive effect upon the human being and find it in the eternal fear that possesses mankind.

EXISTENTIAL FEAR

Students of fear in humans and animals are rarely satisfied by obvious causes; human fear is not a pie to be cut up and assigned to wild animals, bad dreams, strict parents, and the like. It is well to make tallies, thus a third of the population fears snakes, most of these fear them intensely; a great many fear heights or being alone in public places; many fear injury and illness; and nearly everyone fears an assault at the time that it occurs [11]. But, perhaps because they are difficult to study and even to conceive of, "little systematic research has been applied to the nature of what are sometimes called existential fears." [12]

As with the concepts of human nature and instinct, many psychologists would like to rid themselves of the concept of "fear," believing it to be vague and operationally undefinable. But, as Jeffrey Gray puts it, "Experimental psychology—as well as common sense— has been forced to invent the hypothesis of a complex psychological state, 'fear,' precisely in order to make sense out of the otherwise shifting and imprecise relationship observed between stimuli and responses." [13]

We do not distinguish here between fear and anxiety. "Anxiety, the psychological equivalent of pain, is characterized by a feeling of dread.. a vague fear.. not related to specific situations or objects.. part of the human condition." So says Mendel, abstracting from a lifetime of administering intensive psychotherapy [14]. Physiologically, insofar as anxiety can be detected, it exhibits the chemistry and muscular tensions of fear. And fear, when slight, is indistinguishable from anxiety. And anxiety can become terror and panic. The common use of the term "anxiety" has to be attributed to the need to allay people's fear that they may be suffering from fear.

Fear is part of the human and of all that he creates. The role of fear in religion is large, so that a working out of fears often has taken place in the arena of the sacred. Religion approached by faith, says Rudolf Otto, cannot be the same as religion approached through reason. Central to faith is *numen*, the specific non-rational religious apprehension and its object, at all

its levels, from the primitive stirrings to exalted spiritualism. And central to *numen* is dread, for it is the sacred, holy, awful confrontation of man with god or the divine essence [15].

Fear can be both immediate and existential. Immediate fear erupts upon the encountering of threat to the poly-ego system, a learned and/or sensed emotion that sends an ad hoc electrochemical alarm through the central nervous system. Existential fear, also an electrochemical effect, is normally at a constant level which we posit to be above some pre-human level.

What evidence is there for a continuous higher level of existential fear in human nature? That man is an anxious animal has been a byword in psychology. This means ordinarily that the human is never at ease with himself. Rare cases of such are a subject of marveling comment, probably misplaced and incorrect. To suit the needs of homo schizo, all neonates are trained to high levels of anxiety.

It is often argued that humans are culturally indoctrinated in fear, and therefore generally exhibit that continuous anxiety which has every conceivable object as its trigger or focus. Cultures are discoverable that train their children not to possess or display fear. Many mothers of modern western culture earnestly try to preserve their children from the sense of fear. The mothers are reinforced by cultural institutions that have special needs. These, where successful, invariably train only an ignorance of or resistance to fear in some respects deemed crucial by the society, such as facing up to an enemy in battle.

Here, in the first place, there is reason to regard the training as retraining, that is, the acquisition of one set of habits to overwhelm a contrary set. The partial training underscores the practically limitless outlets to existential fear; global courage is not hoped for. The brave Spartans were obsessively fearful of their Helotic slaves; fearful of alliances; fearful of women; fearful of their gods; and would turn tail for home even from a battle if an earthquake occurred. The display of fear is culturally determined; the fear itself is universal.

The most persuasive argument against the presence of an existential human fear is that the human is occupied with so many objects over such large spans of memory and futures that one is bound to be always in a state of anxiety over something. If it is not one's health, it is the apparitions of a stormy sky; if not an enemy, it is an institution.

As in so many areas, here too, one must ask first of all if the logic is not reversed, possibly in a type of cognitive disorder: why does the human tend to so many things in the world, not only the infinite now, but the infinite past or future? Is the object pursued or attended to because it serves as an outlet for fear or must one believe that the human is so naturally rational as to fix his concerns upon practically everything, only then to discover a fearful aspect to it all? I think that the answer to this question will emerge from this book.

Briefly, though, a fixation upon a single or very few objects is suspiciously phobiaphilic; the expansion of the scope of objects occupying one does not increase the general fearfulness of one's state, but rather the contrary: it makes the state of fear more bearable. Extraverted, "neurotic" characters typically disperse their attention and, as a result, acquire unusual versatility.

Furthermore, as we shall argue later, fear is not eliminated by therapy. The objects may be changed. Or, by a variety of means, including drugs such as tranquilizers and alcohol, a high level of fear may be reduced even greatly. Fear is controlled by forcing the physiology, not by clearing away impediments to natural courage.

Comparing the occasions for fear it is doubtful that the human lot is beset by more fearful stimuli than engage the attention of animals. Yet we see in man a variety of psycho-pathological tendencies and behaviors — such as merciless aggression and global attentiveness — not present in mammals and apes. Hence we must seek the source of existential fear in a logical and real condition, which we say is the poly-ego. Self-awareness, inevitable in mankind, produces continual anxiety over his inevitably and profusely invented fears.

In 1933, Freud laid down the theme "..that the ego is the only seat of anxiety, and that only the ego can produce anxiety," and "that the three main varieties of anxiety — objective anxiety, neurotic anxiety and moral anxiety—can so easily be related to the three directions in which the ego is dependent, on the external world, on the id and on the super-ego." [16]

This reads, in our terms: on nature, on others, and on the variegated selves. The self is too complex to be divided into id, ego, and superego. There is a pragmatic instinctive principle involved, but there is no reality principle. The self is never a real self, either.

In systematizing psychology, Freud might better have dispensed with external objectivity and relied upon a phenomenological theory of the world as a wholly subjective creation of the mind. The clutch of components of the ego engage themselves in anxiety-reduction operations. The so-called id, ego and superego elements are ancient and misleading ideas of how the mind works, even though they are conventionally handy for political, moral, and hence therapeutic disputation. Certainly, though, Freudian psychology is erected upon the presumption of ever-present anxiety.

Not until we learn how this continuous drizzle of fear and anxiety is precipitated in human life by the delayed instinct and the split self will we understand existential fear. For the moment, we should counsel alertness against assigning to any experience the accountability for generalized fear. This means to avoid any commitment to sweeping theories such as that of Rank's birth trauma, or to presuppositions like Otto's that dread is validated by its divine associations. Or such large categorical explanations as "castration fear," which is undoubtedly of diagnostic utility. Or, for that matter, to any summing up to 100% of fear by adding experiences from the womb to the tomb. Rather, hypothetically at first, and then as certainly as the evidence and logic permit, let us maintain that the human would be fearful and anxious even if he lived a life totally free of frightening experience.

The whole human mental structure appears to be given over to controlling the mind so as to reduce the stress of fear. The polyself is elected as a governing committee by a central nervous system that was previously under more centralized management. The brain of the hominid loses coordinative ability and in so doing produces the human brain, which imposes a new system of coordination.

The poly-ego, hence self-awareness, would not be present if it were not for the depression and confusion of instincts in humans. What forced the human egos to emerge was the necessity for continuous decision-making and what made this in turn necessary was the delaying of instinctive response. How this happened is to be discussed later on; what it consists of is relevant here.

INSTINCT IN MAN AND ANIMAL

We begin by a comparison. Legions of horseshoe crabs (which are more related to spiders than to other crabs) make their way up the beaches of Cape Cod to breed with precisely the most predictable heavy tide, that which occurs with the full moon nearest to the summer solstice. In the swirling low waters the females discharge their eggs, which are fertilized by the sperm discharged by the males. The adults retire with the tide (save for a few who are trapped in retreating, and bury themselves in sand until the next heavy tide). The fertilized eggs sink into the sand where they develop and wait to hatch upon the occasion of the tide of the next full moon, whereupon they move out to sea.

Instinctively, one may surmise, the horseshoe crab has mastered complex processes that *homo sapiens* would have to learn by pragmatic science. One is the relation of sun and moon to tides, or at least the empirical knowledge of when the heaviest reliable tide of the year occurs. Another is the organization of legions of males and females in rut to congregate at the same place for the purpose of conceiving upon the beach a new generation, which itself develops within the narrow limits of the next lunar month, at which time it can emerge to descend upon the sea.

Thousands of such instinctive processes are possessed by the animal kingdom. In many cases one animal's instincts are aligned to exploit the instincts of other animals. The human, and perhaps the human alone, can make a great many adjustments of his behavior to imitate or relate to and exploit the instinctive behavior of the biosphere. The human's blocked instinctive structure is the basis or take-off point to invent a multitude of instinct-like habits that, for example, would have him waiting upon the beach at the summer solstice to capture the horseshoe crab and sell it for fertilizer and souvenirs. Some animals exploit instincts of other animals, as we have said.

The term "instinct," like "human nature," and "ego," has a suspicious slackness about it. No wonder, given its history. Charles Darwin used it not quite as loosely as he did the idea of "natural selection," S. Freud used it as a workhorse for one speculative probe after another; MacDougall, the social psychologist, pounded it into mincemeat; Tinbergen managed to use it respectably in his study of animal behavior; and Fletcher recently reconciled its ethological and psychiatric meanings usefully.

N. Tinbergen defined instinct as a hierarchically organized nervous mechanism, susceptible to primary releasing and directing impulses of internal and external origin, which responds to these impulses by coordinated movements [17]. The hierarchy is altered by changes in the intensity or by suppression of other instincts. An influential hierarchical order by Rensch gives as instincts sex, deference, feeding, cleaning, and ultimately hunting and collecting. I doubt, however, that there is any hierarchy of instincts in humans except in a group statistical sense, owing to the human ineptitude for specific instinctive response.

Obviously, all writers have had in mind the large fact that animals and men respond automatically when stimulated in certain ways: they blink quickly when about to be struck in the eye, for instance. (Even so, madmen and small boys can teach themselves to control the blink.) This unrestrained reflex is instinctive, as are a great many chemical and motile reactions of the organs and limbs. In the human bloodstream are to be found

leucocytes, cells that hunt infectious bacteria — instinctively? Then where is the instinct: in the whole person or in the leucocyte?

As instincts come to require training (the baby can be toilettrained) or as the stimulus of the instinct provokes a broader response (when struck, the creature dodges, snarls, and strikes back), they enter an area of science that can ultimately merge with speculative philosophy, as when one speaks of an aesthetic instinct in man. Freud's last thrust in the arena of instinct emerged with a death (thanatos) and a life (eros) instinct [18]. This dualism reminds us of entropy and negative entropy, the universal breaking down of motion and material and the countervailing creativeness of life, which, if given optional conditions of sustained full reproduction would soon cover all the stars and the spaces between with organic matter, and then presumably expand the universe beyond even the dreams of the explosive universe theorists. This thought might be taken as an irrelevant comment on the irrelevancy of Freud's two-fold classification. But neither is the case.

In this very book on the pleasure principle, Freud came as close as he ever did to the theory of homo schizo. In the course of denying the domination of pleasure over human mentation, which relates to the anhedonia symptoms adverted to later on, he moves to the question of unpleasure. "Unpleasure corresponds to an *increase* in the quantity of excitation" that is present but unbound in the mind; pleasure is a diminution of excitation. [19] He thus agrees with G.T. Fletcher (1873) who linked pleasure and unpleasure with stability and instability, in between which lay indifference. And he foreshadowed the behavioral conditioning school of today several of whose representatives occupy an honorable place in this book.

Now Freud, typically pushing ideas to their limits of tolerance (and toleration), makes death a pleasure and then an instinct. "Instinct is an urge inherent in organic life to restore an earlier state of things which the living entity has been obliged to abandon under the pressure of external disturbing forces." [20] Instinct: reversion: death.

Freud's "death instinct," so readily misunderstood, can be shown to make sense in the light of the theory of *homo schizo*. For we say that man seeks to revert to the animal in order to recapture the instinctive bliss of the single self. That is, man unconsciously seeks his death as a human, and of the human species. This must be very close to what was gestating in the mind of Freud.

I see confirmation of this thought in a cloudy but weighty remark that relates to the dependent clause of the quoted sentence. For he writes: "In the last resort, what has left its mark on the development of organisms must be the history of the earth we live in and of its relation to the sun. Elementary things do not wish to change but are forced to evolve organically by external disturbing and diverting influences." My work in *Homo Schizo I* deals heavily with such "influences." What is pertinent here is that, by the theory of homo schizo, the evolved thing, man, wants to rid itself of the burden of the very trait that speciates it, that makes it a unique species, and such is the instinct-delay that creates and maintains its perpetual angst.

Freud's early preoccupation with the sexual instinct is less pertinent, disclosing, as critics have pointed out, an ideological attachment to the worries of well-to-do patients in a bourgeois society before World War I. The varieties of sexuality, it rather seems to us, given the cultural accent upon the subject, indicate a dispersed instinct, a conflict of selves, and an employment of sexual displacements to dispose of existential fear. Love consists of identifying an ego element with people and objects (even a 'security blanket') which reassure one against fear. Love is usually deeply involved with control, and control of course is a heavy motive in sexual attraction.

Affection plays so large a part in nurturing and training an infant that it becomes naturally a well-developed area of fixation for many problems of other instinctive zones besides the sexual. One can understand how affection is attached to all manner of "irrelevant" encounters and objects. It can be plucked out and credited with being the basic drive. But we always should refer to the human basic drive as self-control, then to

other essential interests such as sex and food, and finally to myriad mixed displays of all of these.

Without enthusiasm and with qualms, a definition of instinct may be put forward: instinctive behavior in a species is present when, in the absence of training, a uniform behavior reliably results following upon a definite stimulus. The number of instincts in mammal species subsumable under this definition must be in the hundreds. An important fact is that for every primate instinctive action, there is a human equivalent, ontologically recognizable. This fact is relatively easy to argue. However, the near reverse may be also true, as ethologists and sociobiologists increasingly contend: for every type of human action, defined with increasing specificity, there may be a genetically related primate instinct, with allowances made for training in both cases.

The discussion of human instinct centers about the comparative laxness of instinct in the total behavior of man when compared with the behavior of animals most closely resembling him. Compare the separation of the mother bear and her cub, so simple, with the separation of the human female from her child, so complex, so full of woes, the inspiration of thousands of customs and volumes of literature. And include especially the "exceptional" societies such as those in which the mother is trained like the bear mother, who lumbers away leaving her cub whimpering on the limb of a tree, or the societies employing all-male initiation ceremonies to break the maternal grip, or fascist and soviet societies whose nursery schools are intended to abort family influences deemed incompatible with the ideas of the regime, or societies where the tie is broken by taking up one's first job in a distant city. Humans can come close to, or seemingly go very far from, animal practices.

When giving birth, women in comparison with primate females are more agitated and uncertain, and follow practices not observable among the primates, such as engaging attendants. Again, primate females have a defined rut period when they will accept sexual advances, whereas human females frequently are receptive of sexual overtures most of the time. Kinsey found that a mild rut period is present in slightly over half of a human

female population. The complications in the life of humans introduced by just these two departures from the instinctive norms of the primates are numerous. On the one hand there are the "unhappy" components in the difference of instincts: confusion, doubt, malaise, anxiety, ignorance, ineptness. On other hand there occur some "happy" elements: flexibility in relating to other environmental demands, such as planning hunting absences; reasonable timing; more frequent opportunities to breed; and the possibility of introducing healthy practices; not to mention luckier males. Here are two behaviors, in primates and humans; they "could be" alike. But some mechanism generalizes and renders indistinct the human behavior. The words used to rate human against non-human instincts are many; observers find in the human instinctive structure "atrophy," "depression, " "generalization, " "abortion," "diffusion, " "disintegration," "vagueness," "blunting," "delay," and "suppression." Obviously we have many words to choose from in denoting the main peculiarity of human instincts.

Pursuing the concepts of poly-identity and fear, and considering that we shall have to provide later on an operational and etiological system for whatever word we choose, we settle upon "delay," instinct delay. This can be postulated as a general suppression of brain-mediated responses to stimulus such that an instruction can intervene to make unreliable any response. Among instructions can be included decisions, so that one can imagine the delay as automatized, unconscious, or deliberate. Culture, that is, training and education, can affect both instructions and decisions.

POLY-EGO VERSUS INSTINCT

The basic product of the instinct delay is the poly-self. Assuming that several centers of the brain can become seats of an "ego," the delay of instinctive response will cause these centers to develop and exercise influence. The instinct delay produces milliseconds of "hesitation" and "doubt." This is enough for the several centers to sense a problem, that is, nonfulfillment of the instinctive loop of stimulus-responseextinction of impulse, and to react. The general consciousness

is supplemented by a superior and dominating special brain center and several inferior but rival ones.

The dominant consciousness now perceives its rivals and the "problem." It casts a pall of fear over the central nervous system, including itself. The problem of non-immediate fulfillment of the instinct impulse is complicated by the sense of competitive decision-making or instruction-giving centers associated with it. Hence the external fear of ourselves is established. Physiologically a low-level of Cannon's fear-flight effect, involving the adrenals, is produced.

Now we have in operation: instinct delay, poly-ego, and existential fear. The person behaves accordingly. He seeks control of the laggard instincts and their wayward derivatives. He seeks to organize his poly-ego into an effective and more comfortable relationship. He tries to abolish his fear, which, after all, is nothing but a continuous play of the fear sensations of animal life and which, mistakenly, he treats as nothing more than an interminable chain of immediate fears.

Man can and would like to fill infinity with his control activities. "...The overriding purpose of the behavior is an attempt to achieve some security and certainty for the person who feels threatened and insecure in an uncertain world. The possibility of controlling oneself and the forces outside oneself by assuming omniscience and omnipotence can give one a false illusion of certainty. Therefore the main ingredient is one of control." So writes L. Salzman on The Obsessive *Personality*.[21]

Time and space concepts are great instruments for control. Man in effect enlarges the world by imposing more and more of a time frame behaviorally upon it. He obsessively connects himself with natural instruments of time-passage, hence timereckoning. The same occurs in the *space* world. This is part of an irresistible expansion of Man's will to control, which is of course dependent only upon his insatiable need to control his head which in turn depends upon the unquenchable fear that fills his head (and total body libido). And the fear comes from his inability to execute promptly and certainly the numerous

and varied, often contradictory, orders of the incoming stimuli. He is more agitated in civilized than in less complex, calmer societies, and more in rapidly changing than in "stagnant" cultures. And the inability is fostered by the blocking and diversion (displacement) and echoing of incoming orders. The brainwork involved is discussed in the next chapter.

Control by evolutionary reversion is impossible. Man is unable to reestablish the instinctual basis of existence. He cannot speed up his responses and eradicate their derivatives, except that his attempts at doing so produce the astonishing phenomenon of culture. Nor can he put aside his centers in favor of "one king, one throne, one people." Nor finally can he do away with his fear. The failure to complete automatically his instinctual urges, the dissipation of these urges into bizarre forms, and the conflicts of his "split brain" guarantee a level of fear that would approach panic if it were not channeled into new worlds of activity and location.

"YOU CAN'T GO HOME AGAIN"

Animals possess analogues, structurally and functionally, to human compulsions, obsessions, displacements, identifications, and other human mechanisms. Further they can be trained and experienced so as to approach in limited ways the enormous human ability to alter behavior by training and experiencing.

Chimpanzees use sticks to hit the ground, throw at predators, poke for termites (breaking off awkward projections), and choose the more suitable from a set of sticks. They can invent. Their females (and the gorillas') anticipate and protect their infants from potentially dangerous situations. They use signwords and hover on the brink of making symbols of them. A mother rhesus monkey, whose young male has approached a female and aroused the leader, will divert the leader from chasing him by suddenly assuming an attentive position towards a remote point; this alerts him to his duties in foreign affairs and allows the rascal to escape. And so on [22].

What must be stressed is the unique human dependence upon these mechanisms. Humans are absolutely helpless without constructing these mechanisms. We can picture the situation as a trade-off. In return for losing a huge number of instinctive reactions, the human acquires an ability to reconstruct reactions quickly and in manifold forms.

As loss of control occurs, fear erupts. The human seeks to return to the hominid and restore the animal mechanisms, but in marvelous ways. By continuously searching to retrieve his nature, man provides himself with thousands of behaviors of the same categories but inestimably greater in appearances and consequences. He even creates robots, near to absolutely instinctive "animals."

Seen from one perspective, the human behavior is homologous to the animals. Seen from another, the human behavior is only analogous. Whether one opts for the former or the latter view is simply a question of whether to regard as important the phases that intervene between stimulus and response: instinct delay—loss of control—existential fear—diffused or diverted reaction. Since these phases create the human, we prefer the view that human behavior as a whole is only analogous to animal behavior, but that man and primate share homologous infrastructure and functions. The human adds a special neural loop to the stimulus-response cycle.

Identification is strictly constrained among animals, for instance. The animal self is monolithic. An evanescent mother love of the bitch for her pup will only temporarily crack the stone of self. Yet one may not ignore the dog who anticipates the feelings and command of the master, and who may die in mourning upon his demise, a strong but narrow identification, possibly of human-like physiological origins.

Fletcher, in his work on instincts, classified affection as instinctive in both animal and man. Affection consists of the satisfactions brought by a sense of identity, with sexual and control overtones, but, again, often exists side by side with resentment and hostility as ambivalence depending upon the apparent effectiveness of the controls being sought through identification. However, not only abundance and variety distinguish human from animal affections, but also self-

consciousness. Insofar as a person is self-aware, his selfawareness will travel with his identifications and affections.

But even in self-awareness, we should preserve the useful hypothesis, as put by Lashley, that "the rudiments of every human behavioral mechanism will be found far down in the evolutionary scale and also represented even in primitive activities of the nervous system." [23]. Conflict and selfdestructive behavior can be trained into a rat.

Most ethologists seem presently to agree that the differences between man and other species, while apparently wide, are still differences in degree rather than in kind. This view may be correct on a phenotypical level; as stated, analogous behaviors can be extracted from man and beast. But this is not the crux of the matter. If the human utilizes a mechanism that duplicates animal behaviors but this mechanism is implicated at the same time in other functions which do not accompany the animal behavior, even though in some cases the animal uses other mechanisms for the implicated functions, we have an important structural difference.

Phenotypically the behaviors may be alike, genotypically they operate differently. A bird may be musical, and so a man, but a bird can compose music rarely and never invents an instrument like a violin. This may have to do with such findings as that animals seem not to possess cerebral specialization in any manner like humans. No double dissociations, for example, have been reported in animals [24].

Even if it can be proven that "animals have an ability for perceiving rules, incorporating them, and then applying them to appropriate situations" it is not correct to add "whether or not this ability is learned or innate is not important.." [25] The vast role of training in human behavior is a proof of instinct delay. I cannot think of a more significant distinction on which to base a separation of species. Man is condemned to a life-work of completing his instincts. If he were not so proud of himself as a species, he would perhaps say that the transition from hominid to man offers a splendid example of regressive evolution.

The individual is constitutionally unable to reinstinctivize himself. It is commonly imagined that humans can revert to the beast. Not if it is *homo sapiens schizotypus* whom we are discussing. Mental disease (i. e., schizophrenia) cannot cause such a reversion and does not in fact do so. A person is not genetically capable of becoming (by mental illness or otherwise) a healthy (or even unhealthy) mammal. Such a person can commit every imaginable peculiar or abnormal act, but it will be a human act. One should not be misled by the multitude of instances in which sometimes, in cults, ceremonies and mental illness, a person will play the role of a pig, bear, horse, etc., or for that matter, identify with clouds, angels, chairs, and rocks.

This inherent incapacity to re-mammalize is one of the most persuasive proofs that a genetic mutation occurred in the final transition from hominid to human. For, even if human behavior had changed from the hominid to a new fixed behavior owing to a permanent change in environment, such as we shall later discuss, it would be possible to retreat from mental illness in the direction of mammalianism. That is, a way would be found to psychosomatize and build up a new chemico-electrical combination to supply a new type of person. It may be noted that when a mammal is driven into "insanity", it seems to become self-aware, that is, human, and when it is cured it reverts usually to its normal un-self-awareness.

De-instinctivization is accompanied by another important development in the human, namely, individuation. A social group is forced to tolerate deviations, if only because its totalitarian intentions must founder upon the rocks of its inabilities. The individual must fail, as well, in his desperate attempts to control himself, that is, his alter ego. Much less can he attune himself perfectly to the modal group behaviors. Under such circumstances, the ideal of individualism evolves and prospers in the very presence of the ideal of group conformity. The person becomes ultimately aware that he is different from others, the gaps between the various demi-instincts and the required definite response in actions and habits become filled with his unique character. Each human can be different—and comes to think of himself as different—because he has a unique

set of habits or activities to fill the gap between demiinstinctual response and definite practices as the norm.

As with other animal-human analogues, the observations of Eihl-Eihesfeldt and Lorenz are illuminating but theoretically inconclusive. Their explanation of aggression comes down to the following: two things cannot occupy the same space at the same time. In the case of animals, two cannot eat the same morsel, couple with the same female, hide in the same small hole. When inflamed by the same desire at the same moment for the same object-use, they lack (permanently or temporarily) a sense of indirect consequences—which is to say, a sense of plan or of future—or they conceive of no other known solution; or when there are "actually" no consequences, beyond the encounter, that matter subjectively to all participants and the group, then a specific violent (or implicitly violent) exchange may occur.

Next, animals that behave in groups have codes about their aggressive and other behavior. These codes both limit and enlarge the scope of dominating and violent behavior that may be expected in any representative set of encounters.

In the case of man, the limits are so broad and the impulses so complicated that so far as we can tell, any innate tendency can be converted into a type of encounter that everyone concerned would regard as non-aggressive and, of course, aggressive.

We conclude that *homo schizo* produces more behavioral effects than any species, as many as a great many species put together. When operating with a perceived challenge and under scientific rules, he can imitate or reproduce almost every animal behavior. He can reproduce his logical apparatus by computers. He can outwhistle birds, and decoy ducks. He can cut his birth fertility to nil, or stimulate multiple births by chemicals. He is the most flexible animal, the most individually varied, a virtuoso, a polymath, and so on. Prod his brain electrically and an endless flow of free associations and a stream of consciousness is verbalized, though it is neither free nor conscious. And what is in his mind is potentially in his behavior. Considering that his physiology is almost identical with certain primates and that the

apparatus used for being human has been hitherto practically indistinguishable from them, we much seek the origins of his uniquely broad and sophisticated outputs in a freedom from instinctive binding. The search is just begun. We go on with it now, in the operations of the brain.

Notes (Chapter 2: The Search for Lost Instinct)

- 1. The Trauma of Birth, London: Kegan Paul, 1929, xiii., 104-5.
- 2. Realms of the Human Unconscious, London: Souvenir Press, 1979.
- 3. The Ego and the Mechanisms of Defense, N.Y.: International Univ. Press, 1966.
- 4. The Future of Man, N.Y.: Harper and Row, 1964; The Phenomenon of Man, N.Y.: Harper and Row, 1961.
- 5. Essay Concerning Human Understanding, I, Bk 2, 448ff, N. Y.: Dover ed. 1959.
- 6. *Mind, Self and Society,* Chicago: U. of Chicago Press, 1934, 136-7.
- 7. 350, 349, *et passim*.
- 8. Ernest Hilgard, *Divided Consciousness*, New York: Wiley 1977, 1.
- 9. *Op. cit.*, 142.
- 10. Highland, *Op cit.*, 249.
- 11. Jeffrey Gray, op. cit., ch. 2; Stanley B. Rachman, Fear and Courage, San Francisco: Freeman, 1978.
- 12. Rachman, op. cit., 145.
- 13. *Op. cit.*, 34.
- 14. Op. cit., 29.
- 15. *The Idea of the Holy*, London: Oxford U. Press, 1928.

- New Introductory Lectures in Psychoanalysis, N.Y.: Norton, 1933, 118-9.
- 17. The Study of Instinct, London, 1950, ch. 1.
- Beyond the Pleasure Principle, N.Y.: Liveright, 1950. 18.
- 19. *Ibid.*, 2.
- 20. Ibid., 30, 32.
- 1968, 13-4. 21.
- 22. M.R.A. Chance and C.J. Jolly, Social Groups of Monkeys, Apes and Men, London: Jonathan Cape, 1970, 165-8.
- 23. Quoted in Trevarthen, op. cit., 1951.
- Hicks and Kinsbourne, in Marcel Kinsbourne, ed., 24. Asymmetrical Function of the Brain, N.Y.: Cambridge U. Press, 1978, 523. cf. Trevarthen in the same work, 379.
- 25. Trevarthen, Ibid.

Click here to view the next section of this book.