



TimeForms

VICTOR GIOSCIA

Foreword by
PHILIP E. SLATER

AN INTERFACE BOOK

VICTOR GIOSCIA

He is . . .

- Associate Professor of Sociology and Philosophy, Adelphi University
- Executive Director, Center for Study of Social Change
- A practicing context analyst
- Editor of the Social Change Series and *Social Change*, an international journal

He is also . . .

- a piano player (jazz)
- a poet
- a professor
- a writer
- an editor
- a video taper
- a theorist
- a researcher
- a therapist
- a 43-year-old male
- a heterosexual
- a friend
- a lover
- a smoker

He was . . .

- born of Italian parents
 - educated by Jesuits
 - analyzed by Freudians
 - transformed by freaks
 - loved by women
 - taught by students
- and
- befriended (reluctantly) by Martin Gordon, et al.

TIMEFORMS
beyond yesterday and tomorrow

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TIMEFORMS

beyond yesterday and tomorrow

by

VICTOR GIOSCIA

Associate Professor of Sociology—Adelphi University
Executive Director—Center for the Study of Social Change—NY

AN INTERFACE BOOK

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Victor Gioscia

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to Pam - for tenderness
Nicole - for caring
Eve - for joy
Gail - for hope
Lynne - for faith
Madelyne - for truth
and Ilene - for a time

Series Preface

Humans are an endangered species.

We think the separation of fact from value is the principal illusion responsible for the nearly terminal condition of our species on planet earth. This series is an attempt to share the facts and values of intelligent people who know valuable things that might help us find, live, and experience in ways that are species enhancing, not species destructive.

We think sharing information of this kind is as vital to humans as water is to fish.

We think we can depollute our information environment by introducing life enhancing values into the changing currents of our lives.

We think the series should serve as a critical information resource for people who are seriously trying to enhance the life of the human species.

We will publish hard science only when we think it will help us to do that. We will publish opinion, analysis, exhortation, review, speculation, experiment, criticism, poetry and/or denunciations if we think it is of critical human benefit.

We are not naive. We don't think publishing a few truths will set us free. We are not optimists. We don't think the chances for human survival are very good. We are not elitists. We don't think that showers of wisdom from Olympus will illumine the simple man's

darkened awareness.

We believe that human consciousness *both* guides *and* responds to human interaction, and that most contemporary interaction proceeds from *and* perpetuates assumptions about human life that are no longer valid. We believe that these assumptions *can* be changed if/when we want to.

Some of our fondest assumptions have already been unmasked, revealing blind commitments to short values. The most glaring example—we once believed technology made interaction “easier”. Now we know that when our technologies violate ecological laws, we murder each other.

Some new forms of interaction (and some old ones) are currently being touted as *the* way. We don't think there is, or can be, any *one* way. How to sort out the promising ones from the blind alleys constitutes our principal aim.

We therefore deliberately adopt a post-disciplinary stance, believing that no one view, be it philosophical, scientific, aesthetic, political, clinical, what have you, has *the* answer.

We do this simply because we believe that we are living in an era of hurtling social change, which we cannot experience with worn out categories. We are thus in danger of trying to live without experience (surely a suicidal venture) or with the illusion of experience (usually a homicidal venture).

If we must experience to live, but cannot do so without terror, we shall surely perish. Whether by suicide or homicide won't matter.

Is it really the case that experience itself has become nearly impossible? We think so. Because we become human by learning a set

of values, feeling, perspectives and assumptions when we are young, helpless, and uncritical. When that set of values and feelings is no longer adaptive to the world we later inherit, we experience a crisis, which commands on the one hand that we interpret the world as we originally learned to do, and on the other that we realize that the world which gave birth to our first philosophy is no longer what it was. When we must simultaneously trust and mistrust our most fundamental values, it is hard to know what being human means.

We think a “long hard march” through the assumptions that presently imperil us can only be undertaken if we do it caring about each other, whether mandarin or peasant, star or clown, master or disciple. We think new ways must be crafted and built, not simply found or borrowed. Together.

We intend to be a sort of whole earth catalogue for people who think that thinking about the human predicament *might* help its own evolution, for the first time.

As editors, we will select and publish things *we* value as attempts to foster that kind of voluntary humanity.

Therefore, we invite anyone, whether clinical, social, behavioral scientist (or fan) student, faculty (or interested person) young or old (or in the middle) to join us in the attempt to make a joyful human future not only possible but likely.

So—if you think “Science” is *the* way, we’re not for you, and you probably won’t like us. If you think radicals are mad (nee crazy, disturbed, insane, deviant, misguided, etc.) we’re not for you, and you’ll probably loathe us. If you think the world will not be safe ’till sociologists are kings, we think *you’re* mad. Ditto for politicians.

Every day, changes race into our world like mad floodwaters, undermining all we hold sacred and sure.

Change is called for.

Yet, change is crisis.

What to do in such times.

How to live. Feel. Know. Experience.

That's what this series is about.

Victor Gioscia

Executive Director

Center for the Study of Social Change

Despite the anarchic confusion of change rates in the various segments of our lumbering, creaking, and gear-grinding behemoth of a society, few people, as Victor Gioscia points out with some astonishment, have sought to understand and control its mechanisms of acceleration and deceleration. Most people feel themselves to be prisoners of time and in that darkness find it difficult to say anything intelligent about it. This book attempts to order our contemporary chaos in temporal terms. It is an essential work for anyone trying to understand our era, its changes, the counterculture, the future.

The fascination of TimeForms for me is not merely the arresting ideas, such as that psychedelic drugs serve to enable people to handle and even enjoy the information overloads characteristic of contemporary society. Nor is it Gioscia's bold effort to construct a temporal conceptual framework, a framework that forces us to bend and stretch our rigid linear ways of thinking about time. Even more significant for me is the character of Gioscia's thought processes: a restless questing, a nibbling and clawing at the boundaries of the presently unknowable. Without this questing, which is unfortunately almost totally missing from academic productions today, in either their scholarly, scientific or polemical manifestations, I find it difficult to maintain interest in the written word.

This is not to say I have no quarrels with TimeForms. Gioscia and I have several chronic intellectual differences. I am hypersensitive, for example, to the slightest lapse into the kind of progress-infatuated boosterism that characterizes Toffler and Bucky Fuller. All my life, and that of my father and my grandfather, people have been telling us enthusiastically that the next scientific break-

through would *really* do it, would erase the ravages of the previous ones and bring health, wealth, and happiness to us all if we would just open ourselves to it and adapt. The demand I make on all such arguments is proof that their spokesmen are not traditional futurists—that they have successfully routed out of their psyches those tendencies that have propelled us into our current pathological condition, for it is characteristic of neurotic thought patterns to imagine that their only error lies in quantitative insufficiency of application.

Like many contemporary theorists, myself included, Gioscia sees humanity enmeshed in a process which will force a transformation of some of these thought patterns more or less inevitably. The only question is whether his system specifically encompasses those that have wrought the destruction. For me, linearity and chronic accelerative growth are the defining symptoms of social sickness, as are discontinuity and lack of temporal harmony. I would therefore raise the following questions about his theses:

(1) Does not his position take the ego-driven, achievement-oriented, power-infatuated ethic of modern humanity for granted in the very process of explaining recent changes in our attitudes toward it? Is it mere pleasure-seeking that leads us to desire a portable computer the size of a shoe box, a 500-volume library on a wallet size piece of paper, energy to send a thousand rockets to the moon, or the ability to dial China on a wrist-phone?

(2) I am far convinced that generalization is what produced achrony in the first place—that the fantasy of transcendence is the origin and root of modern social pathology. Synchrony is, after all, a commonplace of uncontaminated nonliterate societies.

(3) Can the complexity of future communication technology by itself restore the automatic sense of connectedness that the ravages of individualism have destroyed? Like Gioscia and other social analysts, I place a certain amount of hope in the young, who have been spared the inculcation of certain deplorable motivational

structures. At the same time, despite their impulse toward community, and its accompanying ideology, it is my strong impression that at a gut, moment-to-moment level social responsivity in the young has atrophied even further than in their parents. Gioscia explicitly disclaims any view of the young as especially enlightened, but I would like to see him turn their own eyes on themselves with the same brilliance that he exposes the occupational neuroses of traditional psychotherapists. Hope is a precious commodity and Americans have centered it in their offspring since the earliest settlers, a habit the results of which oppress us on every side. The logic of change processes would lead us to expect the young both to evolve cures for our diseases and to exhibit them in their most extreme form, and this is the way it appears to me. I confess to a personal bias here, however. Although I am fond of the young and approve of them in a general way, I must admit that one of my reasons for leaving university life was the profound boredom aroused by having to spend a great deal of time with people who haven't lived very much.

(4) I am suspicious of analyses which stress discontinuity and shucking the past. Most of the achrony of which Gioscia speaks comes from our living in a mammoth junkheap of discarded novelties. The only discontinuity that would impress me favorably would be the rejection of our national commitment to transitoriness. The most radical change possible in our society would be the establishment of environmental stability and conservatism. In the same vein, it seems important to distinguish between media-defined social revolutions and real ones. Not all of our culture or population is plugged into the media circuitry, and while a 5-year old ideology may be regarded as "hopelessly irrelevant" the same is not true of a 500-year old one. Academics fall into the same trap:—most intellectual history is like the universe seen through the eyes of a company house organ. The fact that flower children, Woodstock, campus protest, psychedelic culture, and so on, seem hopelessly passe today is often used to argue the meaninglessness of those events, rather than, as I would argue, the meaninglessness of our ways of defining our experience.

I don't know how these issues are to be resolved, for Gioscia's vision of the future cannot lightly be dismissed, and may hold a monopoly on hope. For me, in any case, our wrangling over the future is of less interest than his effort to transform our spatial thought patterns into temporal ones, an enterprise at one with the redefinition of matter as energy, product as process, thing as long event.

Clearly this is the direction in which the exploration of ultimate concerns must go. All events which seem mysterious to us—psychic phenomena, unexplainable forms of communication, transcendental experiences—lend themselves to explanation in temporal terms. As Gioscia points out, “some frequencies, after million year evolutionary periods of interacting dyssynchronously, have come into a harmony which we call sensation. Air waves and ear vibrations in synch result in our experience of sound.” Once we abandon our “thing” orientation and begin to pay attention to the coordination of frequencies all sense of weirdness disappears from these phenomena.

One specific question that this book raised in my mind was the issue of “readiness”. Why do people suddenly take action after avoiding it for long periods? Pay a debt, break off an unhappy relationship, perform a task, go on a journey. How does a person achieve sufficient synchrony within himself and between himself and his environment to act with grace, effectiveness, and meaning? These issues are at least recognized in the East, but Westerners (with the exception of a few athletes and performers) are largely out of touch with them. Most acts are performed mechanically by Westerners, in accordance with clock time or some other bureaucratic compulsion. This perhaps accounts for the harsh, chaotic, discordant, and oppressive quality of our urban life. The sense of the interconnectedness of all living things, of the exquisite timing necessary to maintain and express this harmony, has largely atrophied. Hopefully this volume will assist its reawakening.

Prolog

Print is a kind of delayed music, playing now words composed in another time, a process in which the reader confers a temporary immortality on the author's once private thoughts and experiences. You have before you the scores of compositions written in the last five years for various occasions and performances. One is never sure it is the best one could have done, and so, perhaps too late, one tries to add a few grace notes. It would please me, as you read these pieces, if you heard the music you remember hearing and enjoying in the past half-decade, beginning just before "hippies" became news, and ending in August, 1971.

It was a time of many changes, some deep and anguished, some sweet and enduring. For me, it was a dialectical time, of birth, death, and transformation. I learned, and in learning, died, and in dying, learned. I was always surprised when I sat down to write, to find myself as terrified as before to form the words the wisps of awareness that serve as my understanding.

Once, it was possible to read leisurely and ponder long on the eternal mysteries—who are we—why are we here—where are we going—and transmit the results of these ruminations to classrooms full of bright, eager, beautiful young people. That time is steadily disappearing, as the young navigate through oceans of novelty more freshly, more innocently, and let it be said, more perilously, than the professors who presume to teach them. Deprived of time to reflect, the young cannot gain perspective: deprived of innocence, professors cannot learn. The era of rapid social changes blinds us all, blindly.

So too it was once possible to attend the meetings of learned societies, to hear papers of significance and meaning, and even once in a while to deliver them.

But we live in strange times, when nothing is as dead as yesterday's news, and nothing more difficult than tomorrow's vision.

These are things which everyone knows, except perhaps those so tossed and wrung that they must cling to views no longer adaptive. They are recorded here partly to insure myself against the reader's anger when I stridently demand newer bolder imaginations, and partly to explain the very ordinary circumstances in which this book

was composed. For there are two ways to read it, depending on who you are.

If you are literate, if your primary way of learning is through the printed word, and have sampled the philosophers, the sociologists, the psychoanalysts, etc, that is, if you are an educated academic person, you will probably want to begin with the metalog, *On Social Time II*, since, in academic terms, it is the paradigm, or set of hypotheses the other pieces "test". It was written first, and gradually expanded, patched, modified, changed. It will show you what is written between the lines in the pieces that appear before it.

If on the other hand, you derive your principal education not from books, but from experiences with friends and lovers, and if you are already familiar with the psychedelic experience, you will probably be able to trace my own psychedelic evolution through the chapters.

In either case, I want to tell you why I have assembled them here, in book form, though each was originally a paper spoken to an audience. I have several reasons.

First, it is the first of four books on the nature of time, which I want to do because I believe that time is to us what water is to fish: it is dangerous to ignore.

Second, the psychedelic era too often naively divided us into pros and cons, often parents against their own children. I want to stop that war, if even only a little.

Third, I am, God help me, a teacher, and without an audience, I am nothing.

Fourth, timidly, I think some of the ideas might be useful to others who, like me, believe that we are in the midst of an evolutionary crisis, and who believe, with me, that a good theory sometimes helps.

Finally, I wrote these words in joy, which I would like to share.

LSD SUBCULTURES: ACIDOXY VERSUS ORTHODOXY

There is no need to document what everyone knows — there are a lot of young people whose special use of psychedelic substances is part of their special relation to contemporary culture. The special set of values, attitudes, and opinions of this LSD subculture were the focus of my participant observations in London, New York, and San Francisco during the last ten years. “Interviews” with hundreds of users revealed that an acid subculture is comparably to be found in many other world cities, e.g. Copenhagen, Jerusalem, Tokyo, Paris, Berlin.

Less well known is the fact that there is a growing tension between the subculture of LSD users and what might be called the subculture of therapists. The following paragraphs describe some aspects of this tension, written as much to solicit as to share insight into a phenomenon which increasingly troubles professionals in the therapeutic community.

VALUE CONFLICTS

In addition to their use of psychedelic substances which precipitate experiences of a sort radically different from those with which the midrange of therapeutic personnel are familiar, hippies (and yippies and many others) are outspokenly antifamilial (drop-outs), antipsychiatric (pro-paranoid), and anti-bureaucracy (radical politics). They deplore wealth as alienating (the Digger Free Store), cleanliness as neuroticism (clean is a hang-up), and prefer free sex to the marital practices sanctioned by society. They refuse the counsel of rationality (the bomb is rational, the Pentagon is rational) and they insist that “doing my thing” is healthier and saner than going to war or programming computers. They regard the “trip” as a unique experience, communes as better than

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traditional family life, and look forward to the replacement of "violence" with "love," and "education" with "ecstasy."

They are increasingly regarded as social pariahs, public health menaces, political pests, and as a degenerate generation, labels which are said to earn them the right to "treatment". Yet, treatment programs face a number of very practical problems in addition to the value differences described above when they try to offer service to this population. Few are willing to become patients voluntarily. Even if a given therapist has attempted to manage his countertransferences to a patient who regards him as ignorant of the trip experience, biased in favor of family life, militaristic because he offers therapy instead of politics, an impersonal bureaucrat because he is an agent of an agency, "hung-up on loot" because he works for a living, and a puritan because he's clean, relatively monogamous and heterosexual, a therapist must still confront a number of perplexing problems. For example, in attempting to cope with a patient experiencing a bad trip which may last from 10 to 12 hours, what is to be done about scheduling? When the patient is a 16 year old who has run away from home and does not wish to speak to his or her parents, of what use is family therapy? Or, if one wants to treat the natural group (or social network)* of significant others, does one suggest that the whole commune come in? Is a bad trip an "emergency?" Does Thorazine mollify a bad trip? Does Niacinamide?

Faced with these kinds of questions, an increasing number of therapists are reexamining their treatment rationales, so that convictions developed over long years of experience are now sometimes regarded as value assumptions which may require modification.

In our interviews we explored five areas. We did not structure the interviews, so that often other areas cropped up to the exclusion of our principal concerns. If we could comfortably

*I use the term in the sense conveyed by Dr. Ross Speck's work. cf. *Family Networks*, Ross Speck and Carolyn Attneave, New York, Pantheon, 1973.

squeeze a question in, we did. If we couldn't, we didn't. Our interests were:

1. *Subcultural differentiation*: we wanted to know what trippers and therapists thought of each other
2. *Status*: we wanted to know whether the avant-garde nature of the acid scene threatened orthodox therapists
3. *Relevant experience*: we wanted to know whether the trip is a unique experience
4. *Sex*: we wanted to know if traditional family sex and trip sex differed
5. *Religion*: we wanted to know whether tripping involved religious experiences

SUBCULTURAL DIFFERENTIATION

With respect to the subcultural differentiation, we found a continuum of attitudes which rendered our dichotomy of trippers-versus-therapists useless. Although we spoke with trippers who regard therapists who have not "dropped" acid as hopelessly "out of it", we also spoke with trippers in therapy with nonusing-therapists who felt that the course of therapy contained learning experiences for both parties. However, trippers whose therapists had had an LSD experience were uniformly envied by trippers whose therapists had not.*

Self-administered massive dosages may result in good or bad trips. Good trips induced in this way will ordinarily not send a tripper to a therapist. Bad trips might, if the tripper panics and has no one else to "talk him down." The acid-experienced therapist will know how to talk his patient down, if he has a number of

*Here it is necessary to distinguish, as Leuner does, between psychedelic therapy, which involves massive doses of LSD in one or two breakthrough sessions, and psycholytic therapy, which involves repeated lower dosages at regular intervals as adjuncts to the therapeutic process. It is additionally necessary to distinguish the self-administered from the professionally administered trip, since they may differ markedly.

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hours available. The acid-inexperienced therapist usually doesn't know that a patient in a bad trip *can* be talked down, and may resort to medication (Thorazine, Niacinamide). When he does, in the words of one respondent, "Then you have *both* the Thorazine *and* the bum trip to handle." A particular danger is the possibility that the bad trip is due not to LSD but to STP, for the combination of STP and Thorazine is believed to be fatal. The role of the inexperienced therapist who fails to make this crucial distinction is not an enviable one.

It is not surprising therefore that therapists who have had relevant experiences are preferred by trippers. Like the heroin addicts of yesteryear,⁹ acid "heads" know that there is no sure way of knowing the strength of a "cap" of acid when they buy it (or are given it free). Nor is it surprising that trippers feel confined to their own resources and not a little disdainful of the therapist subculture, which by and large, but especially in the United States, is an acid-inexperienced subculture.

Perhaps the most important finding which emerged from our interviews is the fact that the experienced trippers regard inexperienced trippers who seek help of acid-inexperienced therapists as fools because of the high likelihood that acid-inexperienced therapists are not only not able to help but are not willing to help, due as much to their alleged moralistic alliance with an anti-acid society as to their fear that acid is better than analysis (a fear expressed to us by a number of therapists). More often, therapists said that they'd like to try some but legal concerns prevented them. A few therapists said they were able to learn a good deal about LSD from patients who began treatment with them before they began experimenting with LSD, but felt limited in their ability to empathize with the experience.

It should be noted that many of the interviewed protagonists of the LSD experience, both trippers and therapists, do not regard the experience as fitting in neatly with psychoanalytic paradigms, so that, in their view, LSD should not be regarded simply either as

a defense dissolver or as an ego builder, because such views are uncomfortably psychologistic. The social nature of the experience has also been noted by many investigators, notably by Becker² and Cheek³, who have shown that social groups selectively define aspects of the drug experience as real and unreal. Our respondents repeatedly referred to the sociopolitical dimensions of the experience, reminding us, in the words of one young girl, that "dropping acid and dropping out are really very similar, because, you know, in an insane world, counterinsanity is saner than plain insanity." Thus, many users inquire more deeply into the therapist's political views than into his therapeutic credo, often believing them to be more intimately related than the therapist himself does. We have interviewed therapists who do this with patients.

STATUS

With regard to the relative status of the acid subculture, a number of conclusions emerged from our interviews. First, as reported above, many therapists felt that sooner or later they would have to learn more about the LSD experience since they believed the number of users to be increasing and expected them to need help eventually. Some therapists thought that they would eventually try it, and others (usually the younger ones) eagerly looked forward to the experience.

A paradoxical finding is the following. Before acid, therapists who preferred the organic viewpoint to the psychogenic one were regarded by many as old fashioned. Some smiled knowingly at those who did not employ the then fashionable terms derived from psychoanalytic theory. Now, the shoe seems to be on the other foot. Those who attempt to reduce the acid-induced experience to psychoanalytic terms are regarded as conservatives resisting the new orthodoxy. Terms like "synaesthesia" are in; interpretations like "identifying with the object" are out, at least among those we interviewed. This should not be taken to mean that psychoanalytic investigators are not researching the acid scene. Dr. Dahlberg at the William Alanson White Institute in New York is among those

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highly regarded, although he is seen as cautious in both method and dosage levels.⁴

Some who resort to LSD find their particular pathologies temporarily masked or even alleviated by the experience, but acid is no leveler. In fact, the contrary seems often true, which is recognized by experienced users in their ability to distinguish what is generically due to acid and what is specifically due to idiosyncracies of the individual. Again, we found our initial dichotomy to be naive. The question is not whether acid dethrones orthodox diagnostic categories; the real question seems to be which personality types respond to acid in which ways. The work of Linton and Lang⁵ is particularly instructive in this regard, as is the work of Blum⁶ and his associates. They find different personality patterns at varying dosage levels.

It should be noted that psycholytic therapy is gaining in popularity in Europe as a professionally administered modality. In the United States, in the absence of legal availability, it must be reported that self-administered massive dosages are on the increase, especially now that incidents of chromosome damage have been reported, then contradicted, then re-reported, so that even professionals in touch with the literature state that the controversy has not yet been resolved.⁷

The status of the LSD subculture is in rapid flux. Hippies in the East Village, in the Haight, in Soho now avoid the harsh glare of publicity because they know that publicity, for them, leads to ridicule and persecution. They resent the commercialization of their way of life, their music, and their art, because it serves as a vehicle for cheap imitation by faddists. Nor do they wish to be put in the mobility race and competed with for status. Many of our respondents were very seriously concerned with freedom, both inner and outer, and would be much happier if they weren't cast in the role of criminal violators of the American way of life; bucolic emigration for those who are is becoming increasingly attractive.

RELEVANT EXPERIENCE

From the point of view of relevant experience there is almost uniform agreement — the trip is unique. This is not to say that LSD is the only psychedelic drug, for there are many. Mescaline and Peyote are favorites, as are Psilocybin and Psilocin. Other psychedelics have been in use for centuries, but they are not ordinarily found in the training experiences of therapists, and there are few if any comparable experiences in the orthodox psychoanalytic encounter. Alcohol is simply not comparable, nor are the tranquilizers, sedatives, depressants, and stimulants found in the psychiatric arsenal. William James' famous experience with nitrous oxide (laughing gas) is well known and his reaction was very much his own. Others find this chemical quite delightful. One of our respondents prefers it to LSD. But acid, like sex, is hard to compare with other experiences.

SEX

In a much quoted interview in *Playboy*, Timothy Leary stated that the real secret behind the acid scene was LSD's fantastic aphrodisiacal properties, which, for example, enabled women to have "hundreds" of orgasms during a trip. If one takes the term orgasm literally (that is, biologically), our respondents contradict Leary's assertions. However, if one takes a more metaphorical meaning, our respondents indicate that the statement is true, by which they seem to mean that moment after moment is filled with delights of the most sensuous and rapturous sort, and that, for hours on end, in what seem to be vastly extended spans of time, wholly satisfying releases of ecstatic bliss are attained with magnificent ease.

It has been claimed that LSD is not specifically aphrodisiacal but has that effect because it heightens the exquisiteness of perception across the entire sensorium, so that, if sex is what one is experiencing, it is a heightened and exquisitized sex one will experience under LSD. Our respondents told us that there were three ways in which LSD "heightened" the sexual experience: 1) It dissolves defensiveness and anxiety, thus enabling one

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to enter fully into the experience. 2) It extends the sensations associated with sex so that stroking and orgasm are spread over large regions of the body. 3) It extends experienced time (as opposed to clock time) so that one seems to have more time in which to "luxuriate." Thus, even though the clock is running, one can play at one's own pace. "Since a short time seems to last a long time, it's better," is the way one of our respondents put it.

We were also specifically interested in another aspect of psychedelic sexual behavior, namely, what one of our respondents called the "group grope", in which a number of individuals of both sexes participate in what might be termed an orgy. We were told that group sex does not derive its impetus mainly from LSD but from political rejection of the notion of private property and from the practical unattainability of privacy in the urban commune — that acid only served to disinhibit those who already had the wish to "love together."

It is instructive to observe that psychedelic sex differs markedly, however, from the narcotically disinhibited sexuality, since the latter becomes increasingly impossible as dosages climb. Hence, a sharp distinction should be drawn between the psychedelic sex, which is improved, and narcotic sex, which is depressed. Nevertheless, LSD users said that group sex is part of the new political philosophy of community with which they are attempting to replace older political philosophies of proprietary (commodity) sexuality. Actually, we were told that acid and group sex, in combination, are both aspects of a new political philosophy which is emerging in the youthful acid subcultures around the globe, and that proper initiation into this subculture involves far more than acid and group sex.

Of interest to us was the relation between the "communes" in which group sex is often practiced and the "family processes" characteristic of the more permanent of these communes. If, for example, a certain girl functioned as the mother of a given commune, did she also function as a group sex partner? If so, what about incest taboos, and if not, why not? We were told that roles

were frequently reallocated within communes, so that this month's mother might be next month's daughter, etc., and that there were major differences to be found among rural versus urban communes, the latter experiencing a more rapid change of personnel. We were further informed that group sex was not the rule but was not precluded by rule either, so that, if the spirit happened to move them on any given occasion, it might occur. The fact is that dyadic pairings are by far the more common occurrence. We were repeatedly told that LSD was not the *sine qua non* of group sexuality. One of our informants reminded us that several accounts existed in anthropological literature describing similar practices among adolescents in preliterate societies, and that "drugs weren't prerequisites there either."

Hypothesizing that there might be some relation between the antifamilial values of the LSD subculture and anticonformist sex roles, we asked dropout users whether they were consciously and deliberately engaging in sexual behaviors that were specifically opposite to the kinds of sex practiced in their families of orientation. Again, we were given responses which accused us of psychologistic reductionism, suggesting that we were hopelessly out of touch with the generational nature of contemporary youthful rebellion, which did not consist exclusively or even principally of an antifamilial revolt but of a rebellion against all the major institutions of urban-industrial societies. We were politely informed that it was not simply with the family that youth was unhappy, but with schools, jobs, wars, governments, businesses, and bureaucracies, indeed, the whole complex of cultural institutions of which urban-industrial societies are comprised. "This", we were forcibly reminded, "is a cultural revolution, not simply an antifamily experiment." In this way, our hypothesis of reaction-formation received its demise. We concluded that the acid subculture may not solely be understood in psychological terms and that newer models for its comprehension need to be devised.

RELIGION

We have already alluded to William James' masterpiece, *The*

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Varieties of Religious Experience. Masters and Huston have written what may be a minor masterpiece, *The Varieties of Psychedelic Experience*,⁸ in which they address themselves to the relation of psychedelic and religious experience. Their orientation is exploratory, and they attempt to make sense out of the religious statements made by subjects who report on their LSD sessions. Some of their subjects report theistic experiences, some do not, but many report feelings which they regard as religious.

We inquired of our respondents whether they had had religious experiences under LSD. Some responded that they had had experiences which they would call religious if they were religious, but they were not religious. Others said that the trip was the "most profound experience" they had ever had, and, like Masters' and Huston's subjects, described the experience in aesthetic terms. Still others described the experience as one of the "immense unity" and "in touch with All." That Tibetan, Hindu, and other religious vocabularies are widely employed by LSD users is also well known. Such languages describe what Paul Tillich must have had in mind when he spoke of "ultimate concern," or what John Dewey described as a "genuine religious experience." That such experiences were not commonly described by our respondents in theistic terms should thus not be surprising.

We were interested in the extent to which acid serves as a ritual initiation into a subculture, having investigated this hypothesis in the narcotic scene.⁹ In the present study, we wanted to know whether the "profound" nature of the LSD experience might serve as a ritual initiation into what may legitimately be termed a cult, that is, a band of believers united in common observance of religious ritual. It is difficult to classify the responses we were given to the questions we asked in this area. Some respondents pooh-poohed the idea of religious ritual, others said it was "convenient" to share a Tibetan or Hindu language. Others (a Feurbachian proletariat?) said that what was once called religion is "what they were into." We regarded this latter response as the least defensively given, and found no reason to doubt its veracity.

As with narcotics, acid users almost instantly strike up a rapport with each other. It is as if there were a "community of the alienated."* For example, "heads" who read Laing's *Politics of Experience*¹⁰ insist that the final chapter, "The Bird of Paradise," is a trip, and that Laing *must* have dropped some acid to write it. Thus, acid may well serve to initiate members into a mystical cult which promises deliverance from an age gone mad by suggesting that there is a realm of peace above and beyond the falterings of an imperfect civilization. It is not necessary that those to whom such deliverance is given also be required to have an acceptable academic theory of it.

CONCLUSIONS

Our conclusions from this exploratory study were the following:

1. There is an LSD subculture. It is sharply critical of orthodox therapy, and places itself in a "paranoid" opposition to it simply because there is a uniqueness to the trip experience with which many inexperienced therapists nonetheless claim professional familiarity. Such therapists are often cast, albeit sometimes undeservedly, into the role of middle-class police whose duty it is to eliminate an allegedly monstrous drug from the scene. Not a few therapists refuse this role. Others experiment with LSD in both their private and professional lives, but they are, at present, especially in the United States, a decided minority. Those therapists who do not regard a bad trip as a moral outrage, do not quickly reach for tranquilizers when confronting a bad trip, since they see it as an experience with which they can deal empathetically and, hence, effectively. Among users, professional or not, there exists a bond of empathy which many regard as a prerequisite for effective treatment, not *of* acid, but perhaps, even *with* it.

2. LSD-related attitudes represent in many ways only the surface of a new emergent ideology, and therefore enjoy the status that all new and promising things are accorded in a world in need of miracles. It may not be unlikely that in the near future the drug

*I am indebted to Prof. H. Silverstein for this phrase.

aspects of this ideology will be abandoned (the experience of the Beatles in this regard might have been prophetic). For, in our view, what is new about acid is *not* its ideology of the absolute dignity of the individual's experience, nor its conviction that love is the only sane response to a violently destructive world. What *is* new about acid is its centrality to a generation of people who will not mouth beliefs they do not actually live. With this experience, hopefully, the professional therapist can feel a kinship.

3. It was Freud who taught us that sex is not always sex. The LSD subculture seems to be trying to teach us that lesson again, since we seem to have forgotten it. Perhaps polymorphous perversity is an infantile and unsociological creed. Perhaps it is a stage of development which is better transcended. But perhaps, as with play, it incarnates values which are less destructive than wars of another sort, and perhaps, for the young who occasionally experience group sex in experimental communes, it is a necessary experiment seeking new answers to old questions.

4. In an age where conscience permits the napalm flames of war to engulf civilian women and children scarcely two decades after millions were burned in ovens throughout Europe, the suspicion that terms such as "neurosis" and "psychosis" may become political weapons cannot be regarded as outrageous. Perhaps, in such an age, some of those who seek some form of ultimacy in mind-changing chemicals deserve neither to be "treated" nor to be subjected to "criminal" processes.

GROOVIN' ON TIME: Fragments of a Sociology of the Psychedelic Experience

INTRODUCTION

The task of this essay is to focus the sociological imagination on data derived from participant observation of the psychedelic scene. What is attempted is an examination of processes in society which help to account for the emergence of what many call a drug subculture. It will be argued that the consumption of LSD and related substances is an epiphenomenon, i.e., "symptomatic" of deeper changes occurring in contemporary post-industrial society. The hypothesis uniting the pages that follow is that psychedelics are primitive psychochemical machines by which a new generation seeks to master a range of new societal forces. Thus, the new drug technology is produced by, hence does not by itself produce, a new kind of societal agony.

PROLEGOMENON ON METHOD

Participant observation is a form of scientific experience which escapes the trap of fragmented overspecialization because it necessarily confronts the full plenum and contextual variety of its chosen subject. It enables the observer to experience the interconnections which controlled experimentation often defines out of the way. It reduces the social distance between subjective and objective data, by defining the observer as less unlike his subjects than laboratory research defines him. It makes it possible for the observer to observe his own experience as well as the experiences of his subjects, creating an empathy which facilitates candid disclosure while reducing the potential of paranoid reaction in the observational field. These and other qualities of the technique of participant observation make it a

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particularly useful method for one who chooses to focus his attention on the contemporary drug scene.

But participant observation is not without traps of its own. Vivid description is open to the charge of over-identification. Empathy may be construed as loss of objectivity. Generalization becomes more difficult as the number and range of particulars increases. Cooptation and one-dimensionalization become increasingly possible to the extent that the observer penetrates the universe of inquiry. Further, the drug scene creates the danger of arrest for felonious complicity as one more closely "observes" the behavior in question.

Nevertheless, it may be argued that participant observation is the method of choice when the universe to be observed is not yet sufficiently defined to warrant the use of those sampling techniques which lend themselves to more precise and exact statistical quantification. In the absence of a census of drug-related behaviors, participant observation yields up an array of data which make it a valuable method, its shortcomings notwithstanding. The datum that it is the method preferred by the observed adds to the value of its adoption. The fact that it provides ethnographic concreteness is no less a value in its favor.

One spells out the above criteria in order to confront the increasingly met criticism that scientific exactitude is especially needful in the matter of societal problems, an arena laden with values, biases, and political choices. Agreed. One should confront as well the critique which holds that we should aspire to no more exactitude than is genuinely possible, and that if, indeed it is the *experience* surrounding psychedelic substances on which we focus our inquiry, then we should seek no more exactitude than such experiences warrant. This is especially the case when we focus sociological attention on the cultural, social, and personal sources and outcomes of the psychedelic experience, as in the paragraphs that follow.

HISTORY AS INQUIRY

Being there (*Dasein*), Heidegger tells us, engenders a feeling of having been thrown (*geworfenheit*), as if one suddenly awakens to find himself having been deposited in a strange oppressive place, charged with the task of figuring out, not so much “who threw me here” as “now what.” One feels simultaneously lost and impelled, driven and trapped. These were the emotions characterizing the heroin addicts we observed in a study completed a few years ago, and these were the emotions characterizing the participant observer.¹ In those days, heroin was the medication of choice to which many adolescents looked for the anaesthetic revelation of their desires. We hypothesized that these young people sought from heroin a temporary relief from the falterings of an imperfect civilization which inflicted upon them the impossible task of seeking a forbidden deliverance from their lower class plight. The situation was relatively uncomplicated — one drug, one class, even one principal ethnicity, making it possible to generalize from the particular turmoil of these adolescents to the plight of similar adolescents elsewhere.

Quickly thereafter, a much younger population, no higher in class but quite different in ethnicity, seized on the inhalation of glue fumes and similar substances for the relief of their special turmoil, forcing a modification of prior hypotheses, not solely with regard to age and ethnicity, but also with regard to the range and scope of substance choice.² But one could still adhere to the view that drug misuse was the predilection of a relatively small number of young “deviants” in our society, without risking professional scorn, although it was becoming increasingly clear that the “problem” was becoming increasingly serious.

Then, as everyone knows, LSD use spread among the middle class youth of the nation as a fire through a field of hay, spreading with it an array of substances (marijuana, mescaline, peyote, psilocybin, *et al.*) across ages, classes, ethnicities, cities, and subcultures. The situation came more and more to resemble the well-stocked bar of the average American home, such that specific drugs for specific experiences at specific times and places became the rule, rather than the exception. The drug scene,³ like that of its

parents', produced connoisseurs conversant with a variety of drugs which induced desired experiences under chosen circumstances, with degrees of social appropriateness shaded as finely as the gradations of the Japanese bow. The "problem," it was agreed, had reached epidemiological proportions. It was occasionally noted, *en passant*, that the new drugs had been available and in use by a small number of cognoscenti for twenty years, and that some had been in use for literally thousands of years. The question arose, "why are so many young people now using so many drugs." Parallels drawn to the use of alcohol, sleeping pills, stimulants, tranquillizers, cigarettes, aspirin and a veritable horde of socially sanctioned analgesics were deemed not to the point. This was "different."

It was not difficult to assemble "data" from magazines and newspaper accounts supporting the view that a stratification of drug taste was in evidence, that lower class youth preferred "body" drugs (largely heroin and other morphine derivatives), that upper-lower youth were beginning to favor "speed" (methamphetamine and other stimulants), and that the initial sample of LSD users seemed to be dropouts from a middle class life style their parents were astonished to find they (the young) were not enjoying to the hilt, and were, in fact, specifically critical of its alleged crass materialism (i.e., spiritual vacuum). The out-of-hand rejection of affluence was especially shocking to those by whom this affluence was newly won, i.e., the nouveau bourgeois.

And, some noted, "this" was also international.⁴ Like the jet set chronicled in the mass media, youth in many world cities were equally conversant, 'tho differentially supplied, with the whole panoply of drugs that so concerned their elders. To make matters worse, it emerged that the therapy industry, to which parents had been accustomed to turn for the relief of their offsprings' alleged symptoms, was increasingly regarded with suspicion, distrust, and, not occasionally, outright disdain by young drug users—partly because parents assumed that drug use was *ipso facto* pathognomonic of emotional disorder, and partly because legislatures decreed that drug use was *ipso facto* criminal. In short, the young were told that a major norm of their subculture was either sick or wrong, although no

one could dispute their right to a subculture without vitiating his right to his own. Intellectuals murmured "double bind;" youth growled "hypocrisy."

Into this breach bravely rode the ill-starred "Hippies," whose philosophy was abhorred by the very media which extolled and subsequently expropriated their aesthetic. Settling into Haight-Ashbury in California and the East Village in New York, hippies pronounced, as the Spenglerian Beats of the fifties had pronounced before them, the imminent demise of western civilization. Unlike the Beats, however, hippies set about systematically replacing those institutions of straight society which, they charged, had brutally alienated them from the joys of their own lives.

In July of 1967, at the Dialectics of Liberation conference convened in London by R.D. Laing, Allen Ginsberg described the new generation, variously called hippies, flower children, the love generation, the now generation, and freemen, as having a whole set of subcultural institutions of their own. For social workers, there were the diggers; for politicians, provos; for police, Hell's Angels and other Bikers; religion consisted of an amalgam of Tibetan, Egyptian, Hindu, Zen and astrological speculation, all facing in a deliberately mystical direction, drugs and sexual rituals serving as sacraments. For charismatic leaders, there were Leary, Kesey, and others. Language was reinvented, as was music. Philosophy, art, morality, justice, truth and beauty, each received a psychedelic rebirth and transfiguration. Extensive media coverage of these events turned most Americans, whether they liked it or no, into observers of the psychedelic drug scene, in varying amounts and degrees of participation. If one wished now to observe, with some aspiration of scientific method, one had to abandon hypotheses restricted as to age, drug, or locale, for the "problem" was manifestly societal in incidence and prevalence, if not (yet) demonstrably in origin. We set ourselves the task of examining those societal processes which might help to answer the query heard now in virtually all quarters — why indeed were so many young people using so many drugs in so many ways?

SOCIOGENESIS

B.F. Skinner could not have devised a more negative stimulus for the young people in the East Village who regularly use psychedelic drugs than the word Bellevue, a hospital on the fringe of the community which they regard somewhat less positively than a medieval dungeon replete with chambers of torture. The establishment it is said to represent found itself hoist by its own petard when its propaganda convinced an already irate citizenry that LSD turned sweet-faced youngsters into psychotic monsters, dangerous criminals, irrepressible rapists, and habitual thieves, since the public turned around and demanded for its safety that these same either be incarcerated or therapized and preferably both. Though the young avoided both with nimble and embarrassing alacrity, they were aware and made no secret among themselves that living in voluntary poverty, using drugs whose street-calibrated dosages bore little if any relation to actual content, created psychological, sociological and medical problems which might benefit from the ministrations of psychotherapists, physicians and community craftsmen, if only a "hip" variety of these could be found. A number of helping institutions soon decided that, ideological differences notwithstanding, there were more young people with more unmet needs than history had witnessed in a long time, such that ameliorative intervention could no longer be deliberated. Mountains of bureaucracy shuddered, and hippy projects were founded, the most famous being Dr. Smith's clinic in Haight-Ashbury. A less famous semi-counterpart, called the Village Project* attempted to care for some of the psychosocial ailments of the local young "residents." One could there "rap" (talk) with groups of young people on topics of their selection. One of their favorite topics was the subject of this writing — Why drugs? Their astonishing wisdom as sociologists both simplifies and complicates my task, since sociologists, like their therapeutic colleagues, seek to understand, not simply accept, the manifest content of behavior, even (especially?) the behavior called understanding.

*sponsored by Jewish Family Service of New York

Rap session participants at the Village Project were uniformly agreed that "dope" is central but not causal (i.e., a necessary but not sufficient explanation) of their life-style; that getting high, getting stoned, tripping (via LSD, STP, Mescaline, marijuana, and/or any desired combination) is like opening a door to other voices and other rooms, but, after you've opened the door, it's up to you to keep walking and actually *do* the trip, during which, if you're up to it, you will meet all manners of new turned-on experiences which are very much your own solutions to your very individual plight. Dropping out of alienated societal roles is said to be a *prerequisite* to real tripping, since the ego-trips of which society is said majorly to consist become visible as cul-de-sacs and blind alleys, to which a return is unthinkable. A new freedom, the right of phantasy as self-exploration, is ordinarily proclaimed *prior* to tripping, and only subsequently reinforced by good trips. Bum trips are said to be due to fear of letting go, or to contaminated drugs, not to the substances themselves. Uptight people are to be avoided during trips since their fear (and their violence) are said to be as contagious as they are dangerous.

Two convergent trends in society were said to be principally responsible for the drop-out phenomenon, to which the added enticement of tripping is secondary. These trends are: 1) *Automation*: the attainment of an incredibly high level of affluence and abundance in post-industrial (computerized) society, it is said, renders the work-for-a-living (Calvinist) ethos a superfluous relic of the first industrial revolution. Since supermarkets, restaurants and other food merchants have far more than necessary, simply asking for the remainder provides enough to live on. This makes it possible to afford the leisure time needed to engage in self-exploration via tripping, sexual variety, residential mobility, etc. Parents who covertly send checks they can easily afford to send now that junior has left home are not rare. In short, it is said, now that automation has replaced work, play has assumed its rightfully central role, and, if you know how, acid (LSD) is a powerful yet pleasant toy. 2) *Cybernation*: contemporary society has the power to communicate vast amounts of information almost instantly. Just as the first

generation of mass media (linear print and film) fostered mass consumption through mass advertising, at the behest of mass production, so now the second generation of media (electronics — audio and video tape, computerized pattern recognition) has created an era of global communication, where nothing is foreign, nothing remote. In McLuhanesque terms, the content of the electric media is the former mechanical media, just as the content of the trip is yesterday's psychology. Once, a psychoanalytic foray was bedrock. Now, all such forays become the ingredients of emergent psychic forms called trips.

It will be perceived that electricity is common to both of the societal trends the villagers put forward as explanations of psychedelia, which support the view that if Hoffman hadn't invented acid, it would have been necessary to do so, since acid renders the organism capable of enjoying the information overloads which have become characteristic of our electrified society. The analogy runs like this: as water is to fish, so acid is to the children of the age of electric (global) communication. In the wake of such massive societal forces, it follows that new social forms must emerge, to handle, as a trip handles for the individual, the information impact on social organization. Hence, the retribalization process McLuhan has described is said to be the accommodation youth culture has made to its electric environment. The commune (be it urban or rural, an insignificant distinction in an era of total information) is a natural social response to the age of electronic sociogenesis.

The convergence, then, of automation and cybernation, was offered by east villagers as the explanation for the existence of psychedelic drugs. These drugs, they say, are simply the psychochemical equivalents of an electric society in which automated energy is cybernetically processed.

Just as there are said to be two fundamental societal processes at the root of psychedelic culture, so there are two "sick" institutions which protagonists of psychedelic experience diagnose as particularly in need of replacement, i.e., war and education. Wars, it is said, are fought for the preservation of territoriality, which no longer

matters in an age of planetary communication, by people who have not yet learned that all violence is self-destructive exactly to the extent to which it is efficient. Wars which require the young to fight for the very values of the old they have rejected are thus said to be doubly unjust in that they enroll pacifists in aggression, and simultaneously pit young brothers in an emergent planetary culture against each other. Hence, the young reject what they regard as a forced choice between suicide and fratricide. Besides, it is added, the trip experience is as delicate and fragile as it is lovely, to which even subtle psychological violence is abhorrent and disgusting, not to mention physical brutality. It is said that trips teach the futility of violence, wars included.

Schools, which claim to teach the heritages of their societies, are rejected no less vehemently for making that very claim. The young who proclaim the appropriateness of their electric sensibilities argue that a school system which attempts to foster industrial values is engaged in a process of mechanical propaganda no less insidious than any other form of brainwashing. It is said that schools, and especially multiversities, are information factories designed to process young people into readiness for alienated roles in the military industrial complex, from which the young are already in full flight. Some even argue that universities are *worse* than battlefields since they are the training grounds for them without acknowledging that that is their nature. Universities are said thus to add hypocrisy to their irrelevance to the electric age.

Attending to these themes over and over again, the participant observer gradually shucks off his surprise that "heads" engage so earnestly and so solemnly in "raps" on art and media in the same breaths as they rap about war and education. Their earnest solemnity is distributed equally over these topics because they are, in their view, struggling for the very existence of the only culture that gives meaning to their daily experience. They are literally fighting for their lives.

Every culture selects from the range of human potentials, and molds the organisms that are its raw stuff in its own image. And

every, culture, by its agreement that some values and behaviors are central, defines other values and behaviors as peripheral, less central, "deviant." This is no less true of the participants in the Village Project, so that, in what follows, the inference that each and every one of these young people is singlehandedly responsible for the birth pangs of a new civilization should not be drawn. For every sane "head" we confront, we met two lost or mad ones. Yet the point lies deeper — for if, as it seems, there is a new culture aborning, then for many the birth process is extremely painful, if not injurious. But not, we emphasize, for all.

Once this is understood, one also understands why the young will gladly ignore a serious upper-respiratory infection (gained from a shared pipe) or a piece of glass in a bare foot (acquired on a stroll together). They are felt to be badges of solidarity incurred in a collective struggle, in a revolution, they say, with nothing less than culture itself at stake.

UNDERSTANDING UNDERSTANDING MEDIA

The reader will recall that we set ourselves the task of understanding why the psychedelic culture understands itself the way it does, that our inquiry regards the electric metaphor as the manifest content, which *itself* requires explanation. In the language of my discipline, stated explanations are regarded as ideologies, themselves requiring explanation. Sociologists refer to this specialty as the sociology of knowledge, a field heavily indebted to such giants as Marx, Mannheim, and Marcuse, for their elaboration of the view that men's situations determine their thoughts far more than their thoughts determine their situations. Thus armed, we turn our attentions to the social process which has elevated the electric metaphor into a believed mythology.

It was Marx, correcting Hegel, who first revealed what now is regarded as a commonplace, although at first it seemed esoteric and arcane. In the dialectical view, when men reflect on their situation, they diagnose the injustices of their condition, and then seek to change it. They attempt to change the world as they find it into the

world they want it to be, by their work. When, by their work, they do transform their situation, and then again reflect on it, they, like God in Genesis, see that the world they have made is good, or, at least, more just than it was. This process of work changing reflection and reflection leading to further work is described as the dialectical relation between social substructure and ideological superstructure. Thus, the industrial revolution, itself a new mode of changing the world, transformed the preindustrial (Calvinist) ideology of thrift into the post-industrial (Veblenist) ideology of progress, i.e., conspicuous consumption. Before it, the devil made work for idle hands; after it, the popular view was that all work and no play makes Jack a dull boy. Mobility supplanted class struggle as inevitably as the machine replaced the bicep.

It remained for Marcuse to show that societies' efforts to generate demand even beyond the greedy dreams of conspicuous customers required them to foster what he called "surplus repression,"⁵ i.e., to get people to believe that it was more important to repress instinctual eroticism than to develop it, because it was more important to consume (*for* society) than to transcend (*alter* society). Subsequently, Marcuse revealed that post-industrial society employs its media to establish an ideology hostile to transcendence itself, such that citizens are bidden to remain one dimensional men.⁶ Those who attempt to rise above the one dimension society permits by creating works of two dimensions (the prototype is the consciously alienated artist who depicts the new dimension in all its transcendent glory) will find their works reduced to one dimensionality through mass media mechanisms — his work will be mass produced and mass marketed, and thus made ordinary and routine, if not tawdry and banal. A case in point was noted above — the appropriation of psychedelic art forms by the "plastic" advertising industry. One could also add long hair, acid rock, "hip" jargon and "freaky" clothes.

The relevance of these theories to our inquiry is the following: Marx envisioned a process that took an hundred years to have its full impact, and, within that time, Marcuse saw processes take their toll in less than a generation. A recent N.Y. Times article (in the

business section) described third and fourth generation computers, which all came about within a decade.* If we regard computers *in general* as the new technological means of production, and information configurations as the new ideological products of that process, we may calculate that societies now change ten times faster than Marx' original depiction. If we count *each* generation of computers separately, we confront a society which can change the structural base of its ideology four times *within a decade*. If ideologies are formed by reflection on the world we make by our labors, it follows that we are living in an era of such rapid change that those accustomed to it will regard even a 5 year old ideology as hopelessly irrelevant, since it no longer describes the world one confronts.

The extremity of this situation may be directly observed in what sociologists call intergenerational stratification, i.e., the generation gap. In a society which changes so rapidly, the very process of socialization by which parents attempt to acculturate their infants, is doomed since the contents of that socialization will be obsolescent even before the process is over, even if most of it, as the psychoanalysts tell us, is accomplished in the first 5 years. Such a pace of change makes obsolete the very possibility of teaching an ideology which explains the world situation to those in a dissimilar world. When the world changes four times in a decade, it had better invent a way of comprehending itself that changes as fast as experience does. And that, I argue, is exactly what psychedelics are — a psychochemical technology which no longer bothers with the simple enumeration of the *content* of processes, but focuses the inner eye on the *exponents* of such processes. That, I submit, is the inner meaning of the term "tripping," which focuses on the *rates* of change of a changing experience, not simply on the changing content of experience.

Bitter conflicts are thus generated between those who trip and those who do not know what tripping is, who hurl the epithet

*first generation, vacuum tubes; second, transistors; third, integrated (printed) circuits; fourth — bioelectrics.

“hedonism”, as if *that*, finally, was *that*. Other epithets are employed, ranging all the way from subversion to seduction. Subcultural confrontations no less acrimonious than “race riots” have not been rare, and little documentation is needed to remind us that, but for one rare summer of flower power, relations between police and the psychedelic community have not always been cordial. The point is, tripping stratifies the *forms* of consciousness, giving rise to behaviors which uninitiates must regard as strange and unfamiliar, if not as weird, sick, and/or demented. The public media reveal that this new form of consciousness is the issue. Is it sick, we are asked? Can it possibly be healthy?

The science media are uniformly in agreement that psychedelics alter the time sense of experience. Just as computers can process billions of bits (binary digits) of information per second, so when high, can one seem to experience hours and even years in a few minutes. That is the meaning of the word “high,” which describes in spatial terms an experience in which one seems to be able to scan vast horizons from above, encompassing thousands of bits of experience as astronauts take in thousands of miles in a glance.

But do not be misled by the spatial metaphor, nor by the electric one, for a more important property of the expanded time phenomenon is the following — when you expand time, you give yourself the ability to pay full emotional attention to events which in “real” (clock) time would have sped by too rapidly for your empathy to catch hold. This accounts for the observation frequently made that a true “head” will “play” with an unknown object while one more hurried than he will simply not have the time to spend on it. This property of the psychedelic experience also helps us account for the alleged aphrodisiacal properties of LSD and related substances, since, when it is not hurried, when one can give one’s full time to the emotional appreciation of each caress, sexual enjoyment (any enjoyment, for that matter) is materially enhanced.

I have alluded to but two of the time changing properties of the trip — the ability to appreciate changes in rates of change, and the

ability to dwell on detail. If they seem contradictory, perhaps a bit of clarification is in order, for we have not yet touched the heart of the matter.

It lies in the very nature of generalization that once made it clarify particulars. We are all familiar with the experience of uncertainty when perceiving a vaguely familiar object at a distance. As we draw nearer and its outlines become sharper, we exclaim — ah yes, it's one of those. It is just so in the case before us — with a slight variation, for acid, I believe, is only the first of many engines soon to be constructed, which engenders the ability to generalize and classify not objects, but *times*. Thus, the ability to dwell on *rates* of change brings with it the ability to more exquisitely dwell on instances of change.

You see where the argument leads. Just as the automated (second) industrial revolution generalized the first by dealing with the informational exponents of energy processing rather than simply with energy constellations (objects) *seriatim*, so the psychedelic (second) chemical revolution generalized the first (anaesthetic) one by dealing with the temporal exponents of getting high rather than simply getting stoned (drunk) time *after* time.

That is why the process of generalization, which we poor mortals attribute to the power of our intelligences, is a far more naturalistic process than we often perceive. Generalization, it begins to emerge, is that natural process whereby instances transcend their classes of events. Just as galaxies generate stars which expand the limits of galaxies, as men make worlds which outmode their world views, so now we are witnessing one of the most far-reaching revolutions ever to come from human effort, i.e., we are beginning to pass beyond (*depasser, aufheben*) the era of human history which, impelled by the scarcity of objects, clung to the dream that the endless production of objects would set us free. Now that the young can directly experience a world in which cybernetic automation makes scarcity an obsolete concept, they begin to inhabit another

whole realm, the dimension of time, which Einstein brought to earth after his promethean intellectual trip.

If we seem wholly supportive of all of the values of young psychedelists, let us not be misunderstood. Our task here is to analyze the sociological currents on which psychedelia floats, not to examine in detail the pathologies of some of its incumbents. It is one thing to examine the social forces which drive a movement — it is another to focus on the plight of those so driven. Entirely another matter is the question of action — what shall we do for those damaged by misuse of psychedelic substances. These are tasks for another writing.

CONCLUSION

I hold, then, the view that our culture has so accelerated the *pace* of societal change that the simple serial encountering of one experience after another has become obsolete for its young, who are trying to dwell exponentially (i.e., to generalize) on what we elders can only manage arithmetically. They are not only as comfortable in the realm of time as we are in the realm of space, but they have a sense of adventure and discovery about time which many of us have about space. While we build rockets to take us to the stars, they attempt to build a culture which will take them into temporal regions of mind which we will fail to comprehend with merely spatial models.

In my view, this adventure, and its corollary misadventures, is absolutely central to what we are about as a species. The young seek nothing less than the next step in the evolution of human consciousness, the transcendence of spatial, linear, one-dimensional consciousness.

It is clear that this is no small undertaking — that the risks are terrible, that the likelihood of tragic mistakes is high, that there will be fatalities and large numbers of casualties. I fervently wish that they were unnecessary and aim my work to prevent as many as

possible, and to assist in the healing of those we fail to prevent. For it is true that many of those embarked on this adventure are as blind to its dangers as they are unaware of them, so that they are often foolish and often injured.

And yet, there are some who know, who hear the music of the spheres, who accept the deeper challenge to carry history forward. These will be found, on close examination, when they have removed some of the outmoded ideological baggage we force them to carry, to be engaged in founding a new form of temporal consciousness, which I call "groovin' on time."

TIME, PATHOS, AND SYNCHRONY: Accelerating Alienation

INTRODUCTION

This paper is one of a series reporting participant observation on the relation between the “psychedelic subculture” and the almost unexperienceable rate of social change endemic to our post-industrial environment. “Acidoxy versus Orthodoxy”¹ compared and contrasted some of the value conflicts between “heads” and therapists as they experience their respective changes. “Groovin’ on Time — Fragments of a Sociology of Psychedelia”² examined the hypothesis that psychedelic drugs represent the beginnings of an emerging psychochemical technology enabling *homo sapiens* to manage the otherwise unmanageable rate of social change generated by cybernetic automation. In this chapter what is explored is the view that our post-industrial *rate* of social change radically alters the notion of “alienation”, anachronizing and rendering obsolete some of the very criteria we have been accustomed to use in attributing the statuses “mental health” and “mental illness” to individuals, groups, and/or “subcultures.” In addition it is argued that the rate of change inflicted by the current cybernetic environment on individuals, groups, and/or subcultures calls for the delineation of wholly new criteria as to whom we should call “alienated”, mentally healthy and/or mentally ill. Application of these criteria throws light on the differences between a “bum trip” and a good one, between tripping and schizophrenia, and, in addition, help us to put the double bind hypothesis in a perspective rendering it susceptible to further generalization and specification.

In our view, bum trips, schizophrenic episodes, and other “hang ups” are called “alienated” because, in an environment which

changes faster than we can comprehend it, we become addicted to outmoded conceptions of the temporal nature of human experience. Abandonment of these unnecessarily limiting conceptualizations is facilitated by examination of an alternative metaphor.³

We shall argue that recasting the dialectical metaphor can provide theoreticians and clinicians with a new way of understanding the social genesis of individual "pathology" and suggests a way to transcend it.

OBSERVATIONS

As everyone knows, New York's Greenwich Village was the location of the largest permanent assembly of "heads" (regular users of psychedelic substances) in the nation or in the world, for that matter. But what is becoming equally well-known, through increasing advertisement in the several media, is that New York and San Francisco no longer may lay claim to a monopoly on psychedelic enthusiasts, especially since those college campuses which do not report the existence of their head contingents are only exactly that, i.e., those who do not report. Few doubt that they are there nonetheless, and it is becoming increasingly clear that not all of them wear long hair, since even high school teenyboppers now practice that form of communication.

Network radio is thoroughly aware that the special music of psychedelia, sometimes called acid rock, is a two billion dollar business which it ignores at its peril, notwithstanding the exquisite paradox that acid lyrics put down the sort of (bureaucratic) "uptight" consciousness of which the networks consist. Similarly the most brilliant films and videotapes now emerging from head culture, which laugh in tragicomic dada style at the "strait" movie world, are being sought by the same networks and movie worlds whose existence they mock and subvert. Few painters ignorant of the psychedelic experience are counted in the avante garde, as are few practitioners of post-New Left politics. Clinics opened with the aim of offering relief to those "damaged" by their drug-induced

adventures quickly discover that there are at least two kinds of acid enthusiasts: heads who know what they're doing, who therefore don't want any "help" of the traditional kind⁴ (psychotherapy, job counselling, family therapy, *et al.*); and very young patients who seem adrift in the chaos of contemporary life, the angry lost runaways seeking refuge, peace and a meal, maybe. Universities find themselves in a situation not essentially dissimilar, since often, as Kenniston⁵ reports, the brightest kids, who have the best ideas as to what the universities must become if they are to survive, are those who are closest to the head scene. Young bi-cultural professors (half intellectual and half hip) are decreasingly rare. Record companies now employ "company freaks" who mediate between bedraggled looking rock groups and vested company executives.⁶ The demand for young therapists who "know acid" soars while hope of finding them in sufficient numbers approaches the vanishing point.

Observations of similar phenomena are not hard to assemble:

A graduate Sociology student teaching in a "ghetto" grammar school (to avoid the draft) plans a thesis on why the black kids who used to see through the political slogans of the "War on Poverty" at age twelve, now do so at age nine, and even earlier.

A Philosophy Ph.D. drop out from Berkeley guest-lectures to a Social Pathology class at a small university, during which he first puts down the audience for not understanding McLuhan, then, putting down McLuhan as nostalgic, begins extolling "Bucky" Fuller.

Three black pre-teens helping to collect dollars during the Living Theatre's performance of "Paradise Now," pocket every other bill, giggling "shee-it" at the naivete of the bourgeoisie who think they're "contributing to a just cause."

A conversation at a coffee house examines for two hours *why* the strobe light behind the Beatles film "The Yellow Submarine" helps enjoy it *if* you're high on pot.

Young clinical psychologists who protest they haven't learned anything fundamentally new since they began "training" wonder if acid therapy will render their educations obsolete.

Exotic nightclubs offer total environments of mixed media, renting out shifting sound-light-movie-slide-music-video walls, with individual earphones and semi-transparent gowns for seven dollars an hour.

Four interns and their wives look for an inexpensive house in the "East Village" to establish a commune offering free medical care evenings and weekends.

The Philosopher Whitehead proclaimed in 1950 that the West had witnessed more change in the last 50 years than in the last 50 centuries, and the several commissions investigating the 21st century announce that the rate of social change in the year 2000 will have become 300% faster than it is now.

Private portable video cameras and tape recorders were owned by 5 million Americans by 1970.

Scientists at MIT are investigating whether video-holography will replace television as the major medium of the next decade.

DISCUSSION

The foregoing are all examples of a phenomenon increasingly observable in our age of rapid change. What is common in each observation is a discrepancy between two rates of change, to which we apply the term achrony.^{7,8} Achronistic situations are found when those accustomed to one rate of change are confronted by another. Those accustomed to a rapid rate who find themselves in a decelerating situation are thus not entirely dissimilar to those who are accustomed to a relatively slow rate of change who find themselves confronted by an accelerated one. Both experience a change in the *rate* of change they are used to, although, to use an algebraic metaphor, they are oppositely signed.

But calling one change “positive” and the converse “negative” clouds the potential severity of the emotional experience engendered by such situations. For example, if “identity” is based on the expectation that a given rate of change will continue to obtain throughout one’s life, “positive” changes in the rate of change will precipitate continuous identity crises. In psychoanalytic language, this means that one will constantly face a situation in which one’s identifications become increasingly obsolete. The fact that persons faced by the prospect of identity annihilation often resort to violent defensive actions in order to maintain their identities^{9,10} focuses the severity of achronistic plights at the appropriate level of magnification. This sort of thinking leads logically to the abandonment of philosophies based on sameness, or identity, since these concepts suggest a permanence and stability which it is no longer possible to observe in any but the most remote culture still untouched by cybernation.

An even more somber example comes into view if we look at the so-called generation gap in an achronistic perspective. The young for whom each new experience represents a greater percentage of their entire experiential world, can, for that reason, accept change experiences far more readily than their adult counterparts, for whom new experiences constitute a lesser percentage of their total accumulation. The truism that most kids are far more open to change than their elders, is only partly explained by the fact that adults, by the time they have reached adulthood, have slowed down their rate of change as compared to their young, who are still changing rapidly. It is also partly explained by the fact that the young were born into a world that was already changing faster than the world into which their parents were born, so the two generations not only change at different rates, but they are *changing their rates of change at different rates*. The “gap” problem is thus far more serious than the adjectives “traditional versus innovative” suggest, for the “gap” is not simply one set of norms against another—it is actually one set of *rate* norms against another. The generations are quickly growing further apart.

Mathematicians and astronauts are accustomed to calculate such rate discrepancies by placing them in differential equations, where the X's and the Y's, so to speak, are changing rates of acceleration and deceleration. Clearly, if you want to calculate exactly *when* and *for how long* to fire your rocket engine to boost your *acceleration* from sub-orbital to escape velocity, *how long* you may continue to *decelerate* due to earth's gravity, *when* you will begin to *accelerate* due to moon gravity, *when* and *for how long* you should fire your engine to escape moon orbit, and *when* and *for how long* you must fire to *decelerate* in order to land safely, clearly, you had better master changing *rates* of change.

It is less commonly observed that exactly the same sort of exquisite timing is called for in comprehending the rates at which technology alters our social and personal lives. Factually, we do not have the ability to calculate with comparable precision how to accelerate and decelerate the rates of social change that govern us. In this perspective, it is curious to note that so few have even sought, so to speak, the gas pedals and the brakes of our society. More curiously, when they are sought, a cry and a harangue are heard that control over the rates of commonly change-inducing technology will lead to facism, imperialism, socialism, communism, name your poison.

Yet, few dispute that it is to technology that we must look if we wish to locate the forces accelerating our rate of change. The situation becomes urgent when we note that machine technology, which outpaced muscle power a hundredfold, was itself outpaced a millionfold by the early computers, which in turn were outpaced another millionfold by current nanosecond computers, which do more than two billion bits of arithmetic per second. To put it mildly, automation increases the rate of change of work, which, in turn, increases the rate of change of the society in which that work is done. Similarly, cybernation, which is the automated work of processing information, has vastly increased the rate at which information and feedback change the environment. We must thank

McLuhan for reminding us that we are in a very different world from the one in which a few monks labored for years to produce a few illustrated bibles. Now, billions of words in millions of books and hundreds of thousands of magazines leap out at us from our cybernetic environment. The scholar is not the only one faltering in this gale of words. Nor are the children alone in receiving the combined barrage of TV, radio, and other forms of urban din, whose *rate* of increase, I need hardly remind you, is increasing.

Very well, you say. Granted. The rate of social change is increasing. So is society's information output. What has all that to do with "alienated youth"? with LSD? with schizophrenia?

THEORY

It lies in the very heart of that process we call "generalization" to array a large number of common instances under one idea, to which we commonly affix a name, which labels it as the class, or set, of all such objects. We usually perform this magic on classes of objects we can see, visually, and for similar reasons, have come to believe that only visible objects lend themselves to the process of generalization. And, since time is something we don't see, visually, we have come to believe that it is not a member of the class of generalizeable objects.

But this is false, as the astronauts of more than one nation continue to visibly demonstrate. Their trips are vivid proof that a very substantial theory of temporal generalization does in fact exist.

And, as has been argued elsewhere, the LSD trips of those astronauts of *inner* space we call "heads" also provide us with proof that times are experientially generalizeable, that tripping is an experience of temporal generalization, in which the exponents of time, or rates of temporal change, and not simply mechanical succession, are deliberately enjoyed for their own sake. Heads who manage to trip successfully and without discernible damage are

perfectly comfortable with shifting rates of joy.¹¹ Indeed the more rate changes one enjoys, the better the trip. This is because acid, for heads, seems to confer the mysterious ability to expand the apperception of time, such that, when you have more time to enjoy what you're into, you enjoy it for a "longer" time.

To put it another way — if you experience your experience at a slower rate than your wristwatch, you will feel that you have more time to spend on each experience. However, you aren't *experiencing* slower than your wristwatch. In fact, you're processing *more* information than usual (for example, your eyes are dilated, letting *more* light in). Thus, while it helps a little to say that it feels like you're going slow and your watch is going fast, it is more accurate to say, as heads do, that you're high, as in a higher level of generalization. Another metaphor describing the high is this: imagine walking on your knees, underwater about four feet deep, then standing up into the fresh air and blue sky. Now imagine that the water is clock time (or, as Heidigger called it, *Das Element*) and that time is to us what water is to a fish. Now ask yourself — what is this fresh air and blue sky *above*?

It must be another *kind* of temporal experience. One which generalizes clock time, hence both transcends and illumines it, as a generalization illumines a particular. Clock time is seen as *only one* of the kinds of temporal experience you can have when you become aware of other kinds.

But how is this possible? Isn't there only one kind of time, the succession of one moment after another, that is, what Bergson called duration? Perhaps the physicists are the right people to answer this question. But be prepared even there for a surprising answer, since some physicists have now accustomed themselves to the idea that time is not an invariant, and that not all fundamental qualities (e.g. the positron) are, as they say, anisotropic,¹² or one directional. And it just may be that there are *other* kinds of time if we but knew how to look for them.

But, whatever the physicists find, theoretical and clinical scientists do not have to pore over abstruse mathematical equations to become aware of an experience in themselves and in their constituency of a very common experience, namely, that sometimes(!) experience seems to drag, so that minutes seem like hours, and, "at" other times, experience is so joyful that hours seem like minutes.

What I am asking you to imagine, if you have not had a psychedelic experience, is a region of consciousness in which time becomes so elastic that both expanding and contracting time become only two of the qualities of another whole region of temporal experience. In addition, I not only ask you to imagine it, but I suggest that the experience of this region is absolutely commonplace, a common characteristic of everyday life.

To understand this, you have but to reflect that a generalization, *any* generalization, consists of arbitrarily drawing an imaginary temporal parenthesis around a number of remembered experiences you have had before, so that you say, in effect, these are all kind "A" and the rest are kind "not A." That is, as Hegel¹³ noted long ago, negation is constitutive of assertion. You must say this is *one of these and not those* in order to say this is this. You must, as Plato¹⁴ noted long before Hegel, *re-cognize* in order to cognize at all.

Dialectical theorists are wholly familiar with this line of reasoning, which was sufficient unto the task of describing how we generalize as long as the world moved by at a relatively slow and manageable pace. In such a world, the frequency with which a number of A's came by was relatively comfortable, and one was under no special press to construct categories to subsume all such A's. Aristotle, as I recall, constructed a metaphysic in which 10 categories subsumed the entire cosmos.

But now when the pace at which new A's enter experience is so fast and furious that we must become specialists in order to manage ever smaller quadrants of daily life, the situation is almost totally

different. Marx described an industrial revolution that took a hundred years to elapse. We now process experience via computerized machines that change the nature of the environment in ten years.

And heads devise environments in which a dozen movies, a dozen symphonies and a dozen Kaleidoscopic strobe lights barrage their consciousness with sensations as awesome in number and kind as the birth of a galaxy billions of light years in "size."

Confronted by a rate of experience of such stupendous (or mind blowing) complexity, the human mind must attempt to re-cognize faster than ever before. To do so requires wholly new *kinds* of generalizations. Therefore, we should not be surprised that many people in diverse regions of society have begun to move beyond generalizing only visible objects, by attempting to generalize (invisible) *times*. Many are beginning to learn how to have such experiences comfortably and joyfully because they know that just as duration generalizes rest, as velocity generalizes duration, as acceleration generalizes velocity, so there are other kinds of temporal experience which have as their particulars, changes in the rate of change. They confirm William James'¹⁵ view that there are regions of mind as unusually different from our waking consciousness as our waking consciousness differs from our dreams.

One of these regions, I hold, is filled with that kind of time heads call "high," a region which consists of the *generalizations* of our more banal experiences of duration, velocity, and acceleration. I think we have become aware of it recently, because the number and kinds of change-experiences thrust on us by our hurtling cybernetic environment — has made obsolete our usual method of making generalizations, that is, of *re*cognizing our world in traditional spatial categories.

This view gives us the basis of an answer to our central inquiry which may now be rephrased as follows. Could it be that a higher more general *kind* of time-experience may be in conflict with a lower more special time-experience, as a meta-message may be in conflict with a message, as in the double bind theory of schizophrenia? That a bum trip consists of the annihilating terror of being in what feels like two different *times* at once? Could it be that time, which we thought at its very interior core to be the rate of things, might consist of levels of itself characterized by differing rates of occurrence, such that clock time is only one specific form of experience?

The hypothesis is attractive, since it helps to explain why some schizophrenics are described as stuck in “concrete (linear) thinking” while others seem lost in a strange world of racing images. It helps to explain why “talking somebody down from a bum trip” consists essentially in telling him to “go with it” — “get into it” — “ride it” — “follow it” — “it’s all right — it’s all valid experience.” It even helps to explain why it’s called a trip, as if it were a voyage in time.

In this connection, it is instructive to recall the theoretical paradigm of the double-blind theory of schizophrenia. Bateson and his co-workers wrote:

Our approach is based on that part of communication theory which Russell has called the theory of logical types. The central thesis of this theory is that there is a discontinuity between a class and its members.¹⁶

If we recall that the *genesis* of a logical class is a generalization made to re-member all experiences of a given kind, it begins to be clear that double-bound (schizophrenic) persons are those told simultaneously to remember an experience as a member of a class and “at” the same time to deny validity to the experience of that class. In

other words, the bind prohibits the experience of generalization (uniting past and present experiences in a synthesis), yet commands the present experience to be familiar. This annihilation of memory negates the very process of present experience.

Bum trips, like schizophrenia, are therefore well described as failed dialectics, since their pathology results from the negation (of "normalcy") not itself being negated. Some therapists encourage the schizophrenic to "go on through" the process of madness, since they believe, and, I think, correctly, that madness is only the first moment in a dialectical process, that madness itself must be negated after it negates "sanity."¹⁷ The above is only a very fancy way of defining the word "freaky" in the context of a "freak out" philosophy, which regards episodes of madness as prerequisite to the achievement of a "higher" synthesis.

In the instance of schizophrenia, our hypothesis suggests that there is indeed a double bind at work in its genesis, but that double binds are a very special sort of *temporal* contradiction in which the person is not only asked to remember what he is commanded to forget; he is also asked to experience two different times simultaneously. Yet this is a patent impossibility unless the person can be made aware that he will not lose his mind but gain another dimension of it by entering a region of experience in which such time conflicts are only special cases of another kind of time, which, if he chooses, he can inhabit comfortably. Unfortunately, few therapists are aware that there is such a region, and therefore find it impossible to offer support and encouragement to a patient who is trying to find it. Therapists addicted to the view that there is only one kind of time, clock time, will obviously not be able to avail themselves of this clinical prerogative.

Heads, however, know all about this region, which is why, on the one hand, they are not baffled by a bum trip (e.g. a temporarily stalled dialectic — a "hang up") and why, on the other hand,

somebody bumtripping prefers an experienced head to a therapist innocent of this information. A head will say — “Keep going;” a “strait” therapist is likely to say—“Come back.” As in the case of the “generation gap,” here are two groups changing at different rates of change: the one attempting to devise learning experiences for themselves which expand the ability to handle exponentially increased rates of information confrontation, the other advising a diminution of that same ability. This is often regarded as antipro-methean advice.

Although the traditional name applied to the class of events described above as failed dialectics is the word “alienation”, there are several reasons to believe that the term is dated, i.e., obsolete.¹⁸ Originally, Feuerback used the term to describe the condition of estrangement *lovers* felt when they were drawing apart when they wanted to draw together. Hegel applied the term to *all* dialectical processes which were half-complete. Marx applied the term to *social classes* in unequal relation to the means of changing their historical situation. While it is correct to observe that so-called alienated youth stand in an unequal relation to the masters of our technological environment, and to observe that youth is “alienated” from such institutions as the draft, universities, business, and political parties, it is necessary to observe a crucial difference between Marx’s proletariat and today’s psychedelic generation, namely, *this generation does not want to belong to a culture it finds obsolete. It wants to change the rate of culture change, not simply its contents.*

For this reason, we must begin to speak of the post-cultural era as the ideal of radical youth. For the same reason, we may no longer properly regard them as a “sub-culture” having most of their norms in common with us and a few deviant norms thrown into the bargain. In a very real sense, the generation of youth who are experimenting with technologies which may well master rates of experience far beyond our present mastery, may with some justice regard the strait world as alienated from the kind of post-cultural world we shall all

soon inhabit if current technology continues to accelerate its rate of change.

It seems preferable to reserve the term alienation for those situations in which two lovers, or classes, or sub-cultures, stand in unequal relation to the *means* of achieving a goal they clearly envision as their desirable condition, and to apply the term achrony when the discrepancy experienced by antagonists is one of *rates* of change. They are very different experiences which ought to have their own terminologies. (The final chapter discusses how achrony generalizes alienation by focusing on the *rate* exponents of that condition. Suffice it here to say that it is difficult to agree on the means of change while disagreeing sharply on the rates which seem likely to bring it about "in time.")

CONCLUSION

The central nervous system functions, as Freud observed, like a cell wall, keeping certain things in and certain things out, by regulating the rate of substances exchanged between cell and environment. LSD seems to have the power to speed up the pace at which the central nervous system engages in a dialectic with the environment. It seems to do so by opening the door to higher regions of temporal experience, such as changes in the rates of change. When these rates are harmonious, like notes in a chord, we experience a synchrony of times, a joy which is very like the music of our experience. When they are "out of sync," as video people say, we experience a shattering horror, a temporal bind, in which various aspects of ourselves seem to be proceeding at different and conflicting paces. This sort of depersonalization, i.e., of feeling in two times at once, is at the root, we believe, of *all* "mental illness," in varying degrees and amounts.

The same condition, in which one rate of experience is in conflict with another, characterizes the so-called generation gap,

which, at the moment, comes on like a piper cub and a rocket going in opposite directions through a hurricane. Similarly, we may employ the term *achrony* to describe the rate discrepancy between those blacks who want dignity now and those moderates who insist it will take a long time.

Achrony, then, differs from alienation as acceleration differs from duration. It is not simply a condition of estrangement from the means of change, but a condition of temporal dysynchrony. Just as, in the spatial metaphor, you can't do anything about what's bothering you if you aren't in the same *place* as it is, so, in the temporal metaphor we have described above, you can't do anything about the rate of experience that oppresses you if you aren't in the same time dimension as it is.

The special pathology which becomes the lot of those who are unable to master the variations of temporal experience which the current pace of social change inflicts is therefore much more severe than those forms of pathology it generalizes, since it no longer suffices to know *what* the pathogen is. We know. It is the pace at which technology outmodes our powers of generalization. The crucial issue is: can we devise modes of consciousness which can comprehend and thus master the forms of time we now passively experience.

For it is one thing to trip in a mixed media environment that blasts away outmoded concepts of time and space, which most experts agree is what acid does. It is quite another for a whole society to dwell serenely in a comfortable mastery of its rate of change, a condition of temporal peace we call synchrony. It is not obvious that we can manage the latter with anything like the felicity of the former.

The urgency of attaining a post-cultural era is not lost on the young, who know, perhaps better than those well socialized in the

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forties, that *if* we are to survive the seventies, we must immediately begin to devise radically new methods and strategies. It is an instance of bitter irony that we call those engaged in that adventure "alienated youth."

THE COMING SYNTHESIS: CHRONETICS AND CYBERNATION

(The Architecture of Social Time)

PROLOGUE

Rearviewing the decade of the sixties, we can now estimate that technology has wrought more rapid social change in the last ten years than in the past ten millenia. This makes it imperative, yet more difficult, to forecast the seventies. Certain broad parameters seem partially visible, which support the view that radicals (i.e., those who go to the roots) will devote their considerable energies and talents in certain directions, among which is the elevation of control over rates of social change to first priority. Why this forecast seems likely, and what the radicals' efforts will probably be, are the principal topics of this chapter.

INTRODUCTION

Waves of awareness seem to occur in societies in a way very similar to waves made by a pebble in a pool, although, in our time, the pace of social change calls for a much more turbulent metaphor, perhaps a river rushing angrily through its rapids. Recourse to such a metaphor would help us to describe why there are still persistent efforts to label those who enjoy the psychedelic experience as social deviants who lack respect for law and order, notwithstanding the spreading wave of awareness on the part of many investigators that the psychedelic revolution and the cybernetic revolution are as inextricably related as feedback is to information.¹

Nevertheless, the very pace of the wavefronts which help us to understand the relation between the age of computers and the age of acid requires us to attempt some sort of predictive navigation, lest

that feeling of racing blindfolded along the river of change quickly becomes a helpless panic. Those "scientific" forms of inquiry and scholarship which the young rightly denounce as rearview mirroring are no longer sufficient, (if they ever were). In order not to crash we must attempt prophecy, for it is rapidly becoming a truism that the hurtling pace of social change is accelerating. Even if hindsight permits us to conclude that the technology of information expansion gave rise inevitably to the politics of consciousness expansion, it is time now to inquire, "What does the future look like to radicals of the post-psychedelic generation?"

Two sources of "data" relevant to this inquiry are 1) scientific-technological forecasts and 2) social-cultural innovations. Locating these data in the context of a theory of social change² may enable us to see, in the most general terms, a little of what may be in store for us, assuming we shall survive until the 21st century.

THE POLITICS OF NEGATION

Why does it seem like such a long time since the hippies first offered their flowers to our surprised faces, proclaiming the birth of a new culture embracing peace, love, and play, in opposition to our war, fear, and work ethos? The answer seems simple — so much, so much has happened since 1960. Vietnam has grown from a nightmare into a chronic international psychosis. A few tribal communes have mushroomed into thousands, scattered all over the planet. Black power emerged, universities became policed enclaves. Yippies and Chicago. At "Woodstock", a half-million longhairs came together, turned on, and grooved on their music, with lower rates of "social pathology" than the society at large. Man has extended "his" ecosphere to include the moon. Nixon became president.

Once, Whitehead could write that there had been more change in the first 50 years of the 20th century than there had been in the 50 prior centuries.³ Now, reviewing the decade of the sixties, we can say that there has been more social change in the last decade than

there was in the previous five, notwithstanding the rapid invention and diffusion of automobiles, airplanes, radios, television sets, telephones, and jet planes, each forever altering the communication basis of social structure. All this *before* computers.

I have elsewhere described how the computer should be seen as a phoenix rising from the ashes of the industrial revolution, whose death knell it sounded.

Just as the second (automated) industrial revolution generalized the first by dealing with the informational *exponents* of energy-processing rather than simply with energy constellations (mechanical objects) one at a time, so the second (psychedelic) chemical revolution generalized the first (narcotic) one by dealing with the temporal exponents of getting high rather than simply getting drunk time after time.⁴

My attempt there was to show that an age whose technology processes billions of bits of information per second creates the need for corresponding expansion of human consciousness in order to experience that age, and that LSD was seized upon by the young as the facilitating agent of that necessary expansion. In short, "acid" did for consciousness what computers did for technology.⁵ It spread like a wave through the children of the middle class made affluent by that technology. The turned-on generation promptly focused its expanded awareness on the values of its predecessor generation, and, finding them dangerously anachronistic, proclaimed the dawn of a new political age with new political values.

Thus was born the politics of negation, which, like every negation, came directly from the loins of its parent culture. Just as the industrial worker found his prior serfdom suffocating, so the children of cybernation found the industrial liberalism of their parents untenable.

Parents were at a loss to understand the phenomenon behavioral scientists called “the generation gap”. Why did the young want so much sex so quickly and so extrafamiliially? Was the family all that bad? Why were so many dropping out of school, notwithstanding counter-pressures from the draft? Did not the young want an education? Was leisurely life on the campus so intolerable? Was it preferable to living in filth-strewn poverty? Did the young actually believe that rural communes could replace urbanism as a way of life? Did they believe that film and videotape could become alternatives to mass media? Sure, parents said, there are flaws in the institutions of our culture, but wasn’t working to change them better than trying to build a counterculture?⁶ And what was all this talk about Mao, and Che – were the kids communists, fer Chrisake? Weren’t they afraid of chromosome damage from LSD, and doesn’t pot lead to heroin addiction? (Chorus: “What is the younger generation coming to?”)

The children of cybernation treated these inquiries as double binds, commanding on one hand, conformity to (parents’ views of) current society, and demanding, on the other, a rigid adherence to social norms long outmoded. They knew their culture was far beyond such quaint institutions as thermonuclear war, a dollar fifty minimum wage, and briefcase bureaucracy. They were not interested in patching up brutal institutions – they wanted to replace them, and not just them, but the whole tissue of their interconnection, which we call culture. Hence their fondness for visionaries who imagine another *kind* of life, not just repairs to the old one.

It was therefore not a sufficient diagnosis to say that the young were “alienated”, i.e., that they could not share in the benefits of our society because their work was inequitably rewarded.⁷ Their work could not be rewarded in the old culture, for their work, during the sixties, was the negation of that culture, not one institution at a time, but the whole of it, from its economy to its sciences, from its drugs to its nightclubs. Negation was the watchword,⁸ by which they meant living in *deliberate* alienation from the principal institutions of

society, quietly, painfully, being “cool”, exploring their “heads,” “doing their own things” while avoiding parents, police, and the draft. Like explorers on a new continent, the trick was to avoid the hostile natives while building a community of their own. Better still, find out why the natives are so hostile, and turn ’em on to peace, love, and play.

To appreciate the magnitude of this undertaking, imagine yourself to be a 19 year old, fully aware of the power of the military, of industry, of government, of the media, and of their attitudes to your long hair and freaky clothes, and then say to yourself – we’ll change all that, because it’s violent, inhuman, and very likely to bring the entire species of man to a whimpering radioactive germ-infested end. Imagine trying to create an alternative *planetary* culture for the human species because you know that nothing less will help it survive. If those were your aims, where would you look for resources.

BEYOND THE POLITICS OF NEGATION

The first resource of the young is their youth, which, in our time, means that they are incredibly sensitive to the changes occurring around them. While it may seem at first paradoxical, a moment’s reflection reveals that it is in fact this very same sensitivity to our potentially catastrophic ecology that reveals to them its potentially beneficial resources. Actually, this is the perennial role of the critic, whose awareness of how good it might be enables him to denounce how bad it really is.

Critical youth of the seventies will therefore not be more content than their predecessors of the sixties with information doled out to them by universities, media, government, etc. The reverse is probably closer to the mark. Nor will those few “counter-institutions” they have founded, e.g., underground newspapers, film, music, be able to handle the job of informing the more than 120 million people under 25 who will populate the U.S. seventies, even if a thousand more newspapers, films, and records were to find their way

into the sun. For these are only negative institutions, known to be temporary, doing the job till replacements can be fashioned.

There are several technological resources which participant observation reveals to be under active consideration by the young. Note that they require incredibly high levels of sophistication just to understand their *potential* usefulness, let alone their mastery. The young people of the seventies who are now building these devices will deserve more than ever before the term radical, since that word, as everyone knows, means, "one who goes to the roots".

1. *Videotape and Cable tv*: The fact that there are more tv sets in the world than there are bath tubs serves as a testament to the enforced passivity of the generation which owns them, for there is no way for the tv viewer to relate actively to the medium except to turn it on and off. By and large, radical youth now regard mass tv as sop unworthy of them, and even more of them will continue to do so until it stops pushing consumer values at them. They are not into "conspicuous consumption" and their own art is vastly superior.

But video *tape* is video feedback, which provides the enthusiast the chance to do, indeed, to be, his own program, not simply in the living room, but in the classroom,⁹ in the community, even in therapy. Have you seen yourself on videotape? Have you watched a group of young black kindergarten kids doing so? Or observed a dance class, or a theatre group, or a family therapy session make systematic use of this instant playback process to probe into where they are really at? To enjoy themselves? To make joy for others? Young radicals have been familiar with these experiences for some years now, and will press for their increasing "political" utility. Beyond the emotional liberations this medium can deliver, note that "they" — e.g., universities, tv networks, government — will be unable to subject the young so equipped to their customary editorial policies. Community news shows become possible, decentralizing the cybernetic forms of control that now program them. Conservative estimates tally 5 million vt sets now privately owned.¹⁰ If it doubles

every year, as tv did, we shall have 160 million vt sets in private hands in 5 years, many of them in radical hands.

But this is only half the news, since there is every likelihood that we shall interconnect our videotape systems by cable just as we currently interconnect our telephones, opening the door to such fascinating possibilities as direct (vs. representative) democracy on every level, from neighborhood to nation. Jefferson's dream of a fully informed electorate voting on everything could come true, if this drastically de-stratifying technology were not already perceived as the drastic threat it is to the existing power structures. Imagine a government without secrets, or a bureaucracy without specialization (i.e., special access), or a society where information is not power for some, but for all. I am not suggesting that such a society will come about in the 70's, but I assure you attempts in that direction already occupy a good deal of radical attention.

I will not frighten you by suggesting that some combination of videotape, cable tv, and some kind of post-LSD chemical will make a bid to replace the present educational dungeons we call schools and universities. Electronic art, now in its infancy, will have matured beyond the point where a few millionaires can hoard the 10,000 most precious paintings on the planet. When we have the technology to fold feedback upon feedback upon feedback, we shall loose a revolution in consciousness several layers deeper, higher, wider, than we can presently imagine without exhausting the *present* technological capabilities of videotape and cable. We are doing such experiments at the Center for the Study of Social Change.¹¹ Who knows what lies beyond. Do radicals?

2. *Lasers and Holographs*: Once, in a moment of mirth, Tim Leary suggested that the way out of our present predicament was to put all the metal back underground. Perhaps that is impossible, but the least of the laser's potentials lies in its ability to do without wires, for, as you may know, a laser is a beam of polarized light whose special properties enable it to carry energy and information far more effectively than wires ever could.

Recent laser applications include drilling holes only 1 micron wide and 1 micron apart on special tapes, such that 10,000,000 bits of information can be stored on a piece of tape one inch square.^{1 2} This makes it possible to put the entire Library of Congress (the world's largest) on 5 drums of tape which can be scanned by a computer in millionths of a second. Alternatively, one could carry a 500 volume library on a piece of paper no larger than a dollar bill, or enable the creation of such gadgets as wrist tv phones, or portable computers no larger than a shoe box doing whatever cooking, cleaning, and communicating Mrs. Housewife used to do while wholly automating Dad's entire factory.

It's going to be very difficult to pose as an expert (i.e., to have privileged access to information) on anything in such a world. Hence, it's going to be very difficult to make rules based on special privilege. This does not make radicals unhappy.

Another application of the laser will be the very widespread use of synchronous satellites (those which seem to stay in the same spot in the sky because they rotate with the earth) to replace telephone switchboards. Dial your friend in China on your wristphone and be in "instant" touch with him *and his culture*. International boundaries tend to dissolve under this kind of gentle prodding.^{1 3} Perhaps international wars will have the same fate? Maybe not in the seventies, but please be assured that more and more radical energies will be devoted to using these technologies for the political values noted above.

A third major application of the laser is its use in making holographs, those weird plates of film which fix all the light impinging on them so that they are rather more like electric windows than snapshots, since by changing your angle of viewing you change the information you get. If the only use to which holographs were put was the transformation of 2-dimensional tv into "tri-d", that alone would be as significant an advance as tv over films, or film over radio. But such McCluhanesque advantages pale in the face of recent evidence that the nervous system of man seems to follow principles

very similar to laser holography, such that information (memory, tradition, learning—call it what you will) seems to be stored in synapses like light captured on holographs, so that investigation of one leads to knowledge of the other.¹⁴

In other words, this technical breakthrough in physics turns out to be a conceptual breakthrough for neuropsychology. It is difficult to overestimate the significance of this finding since it opens the door to understanding how the nervous system coordinates not only our entire physiology, but also our transactions with the world of experience. It gives one the feeling that we have understood nothing before, that it all lies before us. Fine, say the radicals, while professionals moan and feel incompetent.

Yet, there is an application of laser physics which transcends even those described above. Recently, it was announced that physicists had focused a very powerful laser on a very few atoms of fusible material, producing in effect a tiny, controlled thermonuclear explosion, like the one which powers the sun.¹⁵ If this fact fails to tax your imagination, recall that work requires energy, that controlled thermonuclear fusion can become an extremely cheap source of unlimited energy, with which man can power enough production to eliminate scarcity for all of the future. This means enough food for everyone, and enough energy to send a thousand rockets to the moon, Mars, and beyond so there will be room for those so fed, not to mention the permanent replacement of enforced muscle labor by fusion-powered machines. I pass over the side benefit of planet-wide ecological health in the form of *no* chemical pollution of the atmosphere, although I hope that happens before the 15 years ecologists say we have before evolution on planet earth dies of it. In short, controlled thermonuclear fusion would mean placing at the disposal of man energies comparable to those of the sun, which Kepler, you may recall, believed was God, because it powered earth's revolution.

3. *The Body*: The body is becoming the most universally accessible research facility because anyone well enough to do

research has one. Anyone with a few cheap biomonitors can wire up his autonomic nervous system to some inexpensive readout indicators and set about conditioning his own autonomic functions. Scientists at the National Institute of Child Health and Development have in this way shaped heart rates and rhythms.¹⁶ Many undergraduate students are currently building systems which visually display brain wave rhythms as colors keyed to their emotional preferences, to teach each other the language of each others' autonomic-cerebral functions, with the aim of more direct and intimate communication. The day may not be far away when messages of this sort will dive to the hormonal depths of our natures so that a "word" of comfort may soon substitute for the cruder "medications" we call tranquilizers, sedatives, barbiturates, stimulants, antidepressants, etc. We have come a long way from reading out the biophysical correlates of selected clinical "interpretations"; we will soon be building them to order. Control of brain waves, heart beats, and other so-called "involuntary" functions will then become quite "voluntary", so that a science of voluntary endocrinology does not seem beyond our imminent grasp. And, if Darwin or Freud or Reich or any of a dozen others were right, we may at last begin to understand and hence heal our frightened orgasms. I assure you — radicals have been into this field for quite a while, not without considerable guidance, by the way, from their newly found yoga friends. Those unhappy with the term "ecstasy engineering" may prefer the concept of affect "enhancement". You will find that the terms don't matter when you speak autonomic. Many radicals already do.

4. *Others*: One could go on with the list of roots radicals will investigate in their attempt to seize the reins of evolution. One could mention the world-ecology game currently being played by Buckminster Fuller in his attempt to plot the redistribution of all world resources, including air, intelligence, and synergy. One could describe how environmental ecologists are building furniture designed to interact with human processes;¹⁷ or gravitronics, in which the very waves of gravity are studied with a view toward liberating man from their grasp; or tachyonics, in which theories of particles which *only*

exist at faster than light velocities bid fair to generalize not only the bulk of all contemporary relativistic physics but all notions of before and after since, in such a world, a faster than light particle returns *before* it leaves.

But such ventures are really beside the point of our present inquiry, which is, what does the future look like to post-psychedelic radicals. So far, we have merely recited a list of technological potentialities which radicals will try to use in their “political” attempts to build a new planetary culture. Is there any data which indicate they’ll succeed? That is, to betray my sympathies, are there any grounds for hoping that radicals will succeed in their use of the above technologies to guide social change in a desirable as opposed to its presently suicidal direction? There are a few.

TOWARD AN ARCHITECTURE OF SOCIAL TIME

Beyond the obvious benefits of their youth, the children of cybernation share certain other “chronetic”¹⁸ advantages, among which are their *inability* to swim well in the turgid waves of capitalism but to frolic like surfers in the new media. Hence, even if they only continue their present activities, we may predict with some confidence that they will not adjust their technology to the so-called free market, but to their new political values of peace, love, and play. That is, they will continue to try to make technology serve them, rather than serving it, as we do in consumer society.

But can they bring it off? Aren’t they foolish trying to tame the technological monster? When the New York Times asked Abbie Hoffman on April first what he thought was foolish, he said, “A hundred longhairs toppling the presidency — that’s foolish”. Similarly, when a prominent longhair got arrested recently on a technicality, he “got off” when he threatened to call a tv press conference announcing Yippie support for Mayor Lindsay. These anecdotes serve to illustrate the contention that the children of media power know how to use it. The principle is simple — feedback. Like those tiny Japanese wrestlers who turn an opponent’s superior

strength against him, Yippies forced the media, by making news, to broadcast counter-cultural commercials.

The same is true of underground film, psychedelic art, miniskirts, and let's be honest, pot and acid, which a rapidly increasing number of middle-class professionals are using with increasing enjoyment, learning how from — you guessed it — their longhaired children, or students, or patients. Now, as the number of longhaired children increases, so does the number of parents of longhaired children, who then inevitably create a powerful middle-class pressure against harsh drug laws, to which even the Department of Justice cannot long remain immune. One of our respondents put it this way: "I turned my old man onto pot. He's a judge and he digs it. So next time a kid is up in front of him, he'll be with the kid, cause he smokes too, dig?" Again, feedback.

Anecdotes of this sort underscore the point that there are energies within the establishment which radicals can bend to their own purposes. It is therefore an oversimplification to ask whether a large enough *number* of radicals can assemble enough energy to accomplish their purposes. Like Yippies and Japanese wrestlers, radicals are learning how to turn superior strength against itself, an effort in which they will enlist not only the formidable democratizing power of the new technologies themselves, but also some exceedingly strong sociological powers.

What is meant by the phrase, "... the democratizing powers of the new technologies"? Are the new technologies inherently democratizing? The answer comes in view if we recall that videotape, cable, lasers, holographs, and autonomic engineering each increase the *rate* of human communication. When more information reaches more people faster, pattern recognition must be accelerated, since more patterns cognized means more patterns re-cognized. Recognition facilitates reflection. Reflection generates criticism. Increasing criticism generates pressure for change.

Another way of understanding the impact of technologically accelerated information flow is the following: When events occur too rapidly to feel one at a time, we respond by grouping or classifying; we can then say "all of those". But when the rate of information flow is so rapid that many "all of thoses" arrive in a very short time, we must now group all of *those*. In short, rapid information flow creates a pressure toward higher levels of generalization, which transcend prior classifications of events.

Cyberneticians¹⁹ will recognize here an old story — information overload, requiring new programming. "Heads" are equally familiar with this law, for LSD barrages the organism with a faster rate of experience than previous categories can tolerate, thus "blowing" the mind, i.e., dissolving pre-conceptions.

Hence, the impact of each of these technologies *can* be democratic in tendency, since each of them consists precisely in an acceleration of the amount of information processed in a given amount of time. VT consists of faster feedback, cable of more interconnections. Lasers move more information than miles of thick cable. Each holograph is like a thousand electric windows. Note that interconnecting them multiplies the rate.

As the number of persons with access to this greatly increased rate of information flow is vastly increased, there occurs an overloading of the previous categories they used to process that information. The same mind-blowing fate awaits those categories of culture we call norms, the rules governing behavior. As the rules governing behavior are barraged from all sides with information from as many perspectives, the rules are subjected to overload strains they cannot survive. Just as you can no longer hide unseemly facial gestures on a 2-way videophone, so you can no longer propagandize a community if your cables have cameras at each terminal. Just as you couldn't comfortably watch starving Biafran children while eating your tv dinner if they could watch you too, so government will find it hard to restrict tv access and will be unable to maintain secret court hearings while demanding increased citizen participation.

Similarly, lasers and holographs will bring to billions of people the ability to communicate with each other more, and more often, than their present cultural separation permits. The same is true of the new autonomic languages we shall soon learn to speak, across current cultural boundaries. In sum, the democratizing *potentials* of these new technologies lie in their power to negate preconceived categories of privilege, and to necessitate higher levels of generalization. That is, they accelerate transcendence.

But the democratizing power of the new technologies is not the only energy to which radicals have access. There are formidable sociological energies as well. To observe them, we need only note that radicals have already demonstrated considerable ability to accelerate their own pace of social change, accelerating ours in the bargain. Does anyone seriously expect them to slow down in the foreseeable future? The fact seems to be — they *are* making a new and faster culture, not just negating the old one. We are already changing faster than we want to, though not nearly fast enough for them. They are democratizing faster than we are, and we envy them for it. They seem to know where the pace-makers of social change are, and they seem to know how to regulate them.

For example, they demand more democratic universities. First we gas and club them, then admit they were right, then go along part way. Would we have gone so far so fast without their urging?

They are democratizing sexuality, insisting that we throw off once and for all those remains of puritanic morality which still infect us. We bellow in outrage, arrest them for nudity and indecent exposure, then flock to Oh Calcutta, Che, and I Am Curious (Yellow). Would we have gone so far so fast, if not for them?

They exhort us to play instead of mechanical labor. We call them bums, parasites, and loafers, arrest them for vagrancy, then automate another thousand jobs and fly off to Acapulco.

They turn on with drugs different from ours. We resurrect prohibition, barricade the Mexican border, give them 15-year sentences for possession of two marijuana cigarettes, then secretly try it ourselves and find it is better than 2 martinis on the rocks. Maybe this time they'll help us avoid the silly retrogression that prohibition was. I doubt we could do without them.

But examples are not theory. It does not suffice, although it helps, to note that the Woodstock and Isle of Wight Festivals assembled a half-million longhairs peacefully, joyfully, playfully. For numerical strength is *not* the root issue.

CHRONETICS AND CYBERNATION

The root issue seems to be: how does technology induce social change. The answer seems to lie in the realization that technology itself is the result of two intersecting environments, which we call "science" and "culture", the former referring to a specific set of beliefs (or preconceptions) which the main body of professionals regard as the "laws of nature"; and the latter referring to an unstated but even more firmly held set of beliefs (or preconceptions) which the majority of men in a given society regard as the laws of *human* nature. "Discoveries" in one field, without interaction with the other, simply do not become "technology", by which we usually mean the material techniques a culture builds for itself to mediate its environment.

Thus, technology does not, by itself, explain why social change comes about, for it is first necessary to inquire why a given technology is adopted. Why, for example, did the Chinese discovery of rocket power never get beyond the level of firecrackers for 5000 years. Why did Plato's discovery that the earth was round lay dormant until the Renaissance. There are many other examples. Although we are all familiar with the phrase, "Nothing is so powerful as an idea whose time has come", we seldom make full theoretical use of it. Social change, in my view, occurs exactly then — when an idea finds its fertile time. Knowing when and why the time is

right — or better, knowing how to *make* it right — would enable one to understand and, hence, to modify social change.

It begins to be apparent that there are very sound and sophisticated “political” reasons for radicals’ investigation of communications technology, since communication is the life blood of culture — the medium, as it were, in which given cultural norms are the messages. A generation which mastered those communication processes could indeed refer to itself as the architects of social time, since their principal energies would be devoted to the investigation of how most efficiently to communicate the most information relevant to species survival to the largest number of people, in the fastest possible time.

Radicals’ investigation of media physics thus turns out to be a political act, aimed at altering those assumptions on which all human cultures have based themselves so far, i.e., the belief that war, fear and mechanical work are the necessary attributes of human nature. Radicals hope that new planetary media will render wars obsolete by rendering national boundaries obsolete; that they will render fear of the stranger obsolete, for who will be the stranger when all men communicate as brothers; and that they will render dull work obsolete by providing lovers with time to love while fusion energy powers the world’s production.

Perhaps an apochryphal story is the way to end this attempt at prophecy. Legend has it that Marx was once confronted with the objection that his vision of history was transhistorical and naive if he thought all men under Communism would finally be happy. He is said to have replied, “I did not say all men would be happy. Perhaps, when that time comes, men will finally begin to suffer *as men* — all prior suffering having been animal.”

Perhaps young radicals’ vision is comparably transhistorical. Perhaps technology will overcome them, leaving robots the heirs of men. My attempt has been to show that this is very unlikely. One thing is certain — the time is right, and they know it.

PSYCHEDELIC MYTHS, METAPHORS, AND FANTASIES

ABSTRACT

Subcultures create their own dialects composed of special words and phrases embodying their special experiences. Hip language is an example. Consideration of some aspects of the special vocabulary used by psychedelic enthusiasts provides an entry into the special myths, metaphors, and fantasies of their "subculture". Among these are the "electric" metaphor (e.g., turned on, channels of communication, bit, etc.); the cybernetic metaphor (e.g., feedback, playback); McLuhanisms (e.g., media, message, cool); and others more manifestly psychiatric in reference (e.g., paranoid, hang up, etc.).

This chapter arrays these sociolinguistic data in support of the hypothesis that psychedelic myths, metaphors, and fantasies are largely *responses* to discrepant rates of social change engendered in post-industrial societies by their variety of new technologies. Discrepant rates of social change engender discrepant rates of experience, a condition we term "achrony". It is suggested that "achronistic" experiences generate the psychedelic myths, metaphors, and fantasies discussed. The question raised is — are radical hopes "mere" fantasies?

INTRODUCTION

Participant observation is a method of research which suffers paradoxically from its own merits, since it yields up far more data than one can neatly conceptualize and statistically manipulate. Nevertheless, clinicians and social scientists have long been aware that it is often the method of choice, especially when the universe to be sampled is of indeterminate size or character, or when the subject of inquiry is of such known complexity that the complexity itself becomes the subject of inquiry.

For example, clinicians and social scientists whose interests acquaint them with members of the psychedelic generation quickly become aware of a bewildering complexity of themes recurrently expressed by members of this subculture.¹ These include aspects of Eastern mysticism, Western pharmacology, Egyptian theology, Greek astrology, Japanese diets, and a veritable panoply of similarly esoteric elements. Early in their encounters with psychedelic protagonists, clinical and social scientists are greeted with what seems to be a private language, complete with its own nouns, verbs and adjectives as well as syntax, grammar, and structure. Increasingly, many investigators are beginning to conclude that their ignorance will remain fixed unless they master to some degree the complexities of this sociolinguistic universe.² And, as they do so, they become aware, along with their increasing fluency, that the words and sentences of this subcultural jargon, like the words and sentences of their own professional vocabularies, resemble icebergs, only a fraction of which are available to "conscious" observation, the remainder being submerged in a sea of shifting sociocultural and idiosyncratic currents. If we wished to know, in a given encounter, not only what the words mean in general, i.e., in American speech, but what they particularly mean, i.e., to the individuals speaking them, we would be well advised to devote attention to both aspects. The principal aim of this chapter is to focus attention on the sociocultural aspects of psychedelic speech, to assist those investigators who wish to understand how what is (1) cultural, what is (2) sub-cultural, and what is (3) psychological, may be more sharply delineated. Such efforts follow the lead of Henry Murray, whose maxim. "All men are like all other men, some other men, and no other men", became part of the founding philosophy of that field anthropologists call "culture and personality".³

The general hypothesis woven through the paragraphs that follow is that language is properly included in that class of social events which have in recent years experienced the tremendous impact of the changing technologies characteristic of contemporary societies. Specific hypotheses with regard to the impacts of particular

technologies on particular populations are then derived and tested with sociolinguistic data. I will attempt to show that an understanding of the impact of certain technologies on the lives of the psychedelic subculture helps us to distinguish psychedelic myths (i.e., beliefs shared by most members of the subculture) from metaphors (favorite comparisons used by the subculture to compare itself with the general American culture) and from fantasies (apparently idiosyncratic acts of imagination by individual members of the subculture). Failure to draw such distinctions increases the danger that observers will infer psychological disease (e.g., hallucinations) where none exists, and conversely increases the danger that legal and social scientists will attribute to pharmacological agents powers that actually reside elsewhere (e.g., the technologies characteristic of post-industrial societies).

METHOD AND PROCEDURE

In addition to its usefulness in managing complex data, participant observation permits great flexibility of operation, so that one can learn, not only from living in the neighborhoods where his "subjects" (including himself) live, but one may move about in the many places where his subjects behave, including hospitals, universities, coffee houses, and underground theatres. Here too, the method suffers from its virtues, since cogent objections against the reliability and validity of the data so derived may be well-founded. Suffice it then to assert at this point that I have learned the language in the many places where it is spoken.⁴ You will have to judge for yourself whether the generalizations I derive therefrom describe the population with which you are acquainted.

Procedurally, I will first present a list of words and phrases drawn from this language. I will then show that groups of these words and phrases can be shown to have their origins and contexts in the several technological characteristics of our society. I will then attempt to show *how* the experiences generated by the various technologies operating in contemporary society generate some of the myths, metaphors and fantasies characteristic of the subject population.

SELECTED ASPECTS OF THE PSYCHEDELIC DIALECT

A glossary of words used by the psychedelic generation published in 1966, began with the caution, "Of course, by the time you read this, it may well be out of date".⁵ It begins with the word "acid", of course, then lists the word "backwards", which it defines as "tranquilizers or any central nervous system depressant".

Proceeding alphabetically, on our own list, we would next list the word "bit", which means any item of information or behavior, as in "that bit". A "bummer" is a bad trip, or any bad experience. Someone who has had too many trips is said to be "burnt out". Someone who has had a number of good trips is likely to be "cool" about it, i.e., relatively uninformative unless asked by a trusted person.

A trip may begin well but may end badly. The painful termination of any experience, by extension, is termed "crashing", or "coming down hard". This is especially likely if one "uses" "crystal" (or "speed", or "forwards" or "ups", i.e., amphetamines or other central nervous system stimulants). Someone who is deeply into the interior (vs. the social) aspects of a trip is "destroyed" (or "zonked", "out of his mind", or "spaced"). Contrary to popular belief, it is entirely possible to "dig" (or enjoy) such experiences. One can "get into" them if one knows how. One can even dig experiences which "blow your mind", i.e., dissolve those structures of consciousness on which we ordinarily rely for "sanity". One who does not understand such mental events will probably "bug" (bother) one who does, with his irrelevant questions. One who knows how "high" another is may get a "contact high" (empathetic euphoria) in communicating with him. "Copping out" means resorting to conventional vs. "hip" explanations or behaviors, i.e., giving up.

If something is really "groovy" (particularly enjoyable) one may say it is "crazy". An "out of sight" or "far out" (avant garde) experience is particularly groovy, but not quite "mind blowing". People who don't know how to "groove" are said to be a "drag"

(i.e., they reduce one's joy). Drags tend to "bring down" or "turn off" people who would prefer to be "high" or "stoned" (using a psychedelic drug or being high or stoned on, or by, anything else they happen to be "into" or "grooving on"). The trick is to "turn on" (be high on something, not necessarily "dope", i.e., any pharmacological substitute) and to stay turned on. Then one can "grok" (dig communicating, or meditating joyfully and profoundly).

If one "flips", or "flips out", one may be either particularly enthusiastic or psychotic, depending on whether such "freaky" (unusual) experiences are dug or one gets "hung up" (panicked or very worried) about them. Such "hassles" (bothersome trivia, worthless rituals, meaningless events) are considered to be "drags" or "downs" by real "heads" (regular users of psychedelics). Heads who "smoke joints" (use marijuana) or "drop" (ingest) LSD *regularly*, usually distinguish themselves from those who do so *very often* (pot or acid freaks), although they may also be music freaks, or print freaks, or sex freaks, etc., depending on which activity they very often engage in to turn themselves on.

Heads who dig "out of sight gigs" (experiences which require some skill) regularly "rap" (talk intensely) about them with other heads making similar scenes. "Riffs" are scenes where really good raps occur, although uninitiates may "put down" (deplore) or "bring down" (ruin) them unless caution is exercised. When bad or "heavy" scenes generate "paranoia" one has to decide whether to "split" (leave); whether others are "straight" (naive); or represent "the man" (straight authority). Failure to make a decision leaves one "uptight" (tense) and unable to "go" (groove).

People who have dropped tabs of acid or toked on a joint of grass, who have successfully integrated these experiences for themselves, are said to be "together" (healthy) although one is even more healthy if one has gotten both his head and his scene together. One can then feel "good vibrations" and "know where it is really at". Such people used to be called "with it"; they now have their own

“bags”, “gigs”, “scenes”, etc. They enjoy “balling” (intercourse) and instantly recognize cats and chicks who are “into it”. They are seldom hassled because they know how to “score” (buy drugs) without getting “busted” (arrested) or getting “burnt” (buying counterfeit drugs). They are very “spacey” people who like to go through their own “changes” so they generally avoid “shrinks” like the plague.

The foregoing list, it should be recalled, is a biased sample. Nevertheless, if we regard the subcultural dialect from which the list derived as a symbolic organism⁶ having an ecology and an evolution analogous to other living organisms, we may begin to investigate how this dialect achieved its present form, and examine how it relates to its parents.

TECHNOLOGY AS ENVIRONMENT

Following Hegel, or clinical practice, we may begin anywhere, confident that the whole story will eventually unfold. Previous work⁷ suggests that we will reach the heart of the matter faster if we observe that many of the words selected bear the imprint of the technologies which originally created them.

Thus, the central terms which have become the most widely known by reason of frequent repetition are acid and trip. An acid, as everyone knows, will dissolve most metals. In this context, Leary's demand that we put all the metal back underground serves to reveal a feeling very common in the subculture, that mechanical and metallic experiences are to be avoided and replaced, hopefully by better ones; but if such experiences cannot be removed or replaced, perhaps dissolving them in another sort of acid will help for the time being. And, if one can simultaneously dissolve the machine and travel, out of sight of all such machines, so much the better will the trip be. We sometimes forget that taking trips of the more ordinary variety, using automobiles, railroads, ships, and airplanes, has become absolutely commonplace for the great majority of Americans only in the last 25 years, when mass transportation became a technological reality.

Again, as everyone knows, it is not simply the availability of mass transport, but of rapid transit which describes our era of jet planes and 400 horsepower cars. Taken in conjunction with another well-known fact, i.e., that highway accidents claim more deaths than wars, one begins to account for two more popular metaphors — speed and crash. In the dialect, “speed kills” is a familiar graffiti which puns deliberately on highway technology by pointing out that one who goes very fast on drugs is as likely to crash as his highway counterpart. This same awareness of the hurtling pace of our era seems to underlie such words as backwards and forwards, whose drug translations seem to be regressing and accelerating. The word “rushing” means a particularly delightful experience of those first few flushes of euphoria that begin many drug scenes.

The word “scene” of course is usually associated with drama, most often, in our era, with film or tv drama. Similarly, riffs and gigs derive originally from the speech of musicians who performed in these media. Both travel and media experiences may go too slowly, in which case they will be said to drag.

Such “interpretations”, however, are rather commonplace. Almost as well-known are the terms “turn on” and “turn off”, which remind us, according to McLuhan⁸ of the fact that the psychedelic generation is composed of the first generation of children raised entirely in an electric environment, consisting not simply of tv sets which one can only turn on or off (as Vice President Agnew observed) but of an entire industrial establishment powered no longer by muscles and steam but by electricity and its 20 year old wonderchild, the computer.

Computers make automation possible because they process billions of bits of information per second, which is not only exponentially faster than machinery but exponentially more productive. As noted elsewhere⁹, an era which processes that much information that fast calls forth a corresponding increase in the consciousness of the people who live in that era. As McLuhan says,

the computer is the LSD of the business world¹⁰. Turning the quote around, it has been said that acid is the computer of the turned-on generation. In other words, as noted elsewhere¹¹, the psychedelic revolution is the *result* of the cybernetic one, and is an appropriate response to it.

Put it this way: heads are trying to do psychologically what computers have done sociologically, that is, exponentially expand the ability to process vast quantities of experience very rapidly. Such experiences tend to vanish into the future very quickly. They tax the imagination, which responds with such phrases as "outta sight". Minds which have dissolved preconceptions (programs) which prevent such rapid processing may be said to be "blown", as if their fuses were trying to handle more current than they were designed for. Too much of this sort of thing will earn the description "burnt out".

Paradoxically, electric media require more participation because, so to speak, the gaps between the billions of bits they use to move information must be filled in by the observer. Such media also require higher levels of participation because the pace at which they deliver information is so fast. If a picture is worth a thousand words, how many words is a two-hour tv documentary worth, requiring the viewer to reach conclusions on more matters in a day than granddad had to decide in a lifetime. Media which foster increased participation are said to be "cool"; those which suggest less are said to be "hot". It was no accident that the generation which insisted on marching on Washington, called itself "cool", i.e., responding to the pressure of our electric media to participate faster at higher levels of consciousness in a world of vast informational complexity. Political "trips", as it were.

When you're "where it's at", you are like the diamond stylus tracking the grooves of an LP record. Your feelings will follow the changes in the chord structure of the music. One of the best compendia of myths, metaphors and fantasies easily available is the Beatles' recently released book of illustrated lyrics. Although books

and print are regarded as hot media, suitable only for intellectuals and other professionals, still, the lyrics are a groove, as they say.

Rockets which must reach transorbital velocities (beyond 25,000 miles per hour) are not now readily available to the common man except as he imaginatively identifies with the astronauts who recently landed again on the moon. This relative unavailability should not hide the fact that this extension of man's ecosphere, even beyond the media extensions of his nervous system, was the principal value of the journey. Hence, we should not be surprised to note that the words "spaced out" or "spacey" are the most recent additions to the psychedelic dialect, since the technology of space flight is the most recent extension of our technological environment. Similarly, since it is absolutely essential for NASA's computers to include in their calculations the most minute alterations in the relative positions of sun, moon and earth, we should not be too surprised to note that astrology is one of the principal myths of the psychedelic sub-culture.

The need for brevity prevents any extended discussion of astrological language here. We may pass beyond this topic by simply noting that astronautics is a major technology in the same environment in which astrology is a currently flourishing mythology.

The general notion which each of these parallels between technology and language suggests is one with which students of the human mind should be familiar. It is the maxim that we must understand what consciousness is conscious of in order to understand what consciousness is. Since we already know that the principal impact of technology is to change the world we live in, we should be able to conclude rather quickly that language, one of the principal incarnations of consciousness, will contain reflections of the environments man is conscious of. We should also not be surprised to discover in the language of one of our principal subcultures, reflections of those technologies which have most changed the world from a pre-industrial agrarian society into a post-industrial cyberna-

ted one. In short, there should be words for the experiences technology has fashioned for the subculture, as indeed there are.

The question of central interest in this chapter, however, is not whether the subculture is sharply aware of its technosphere; few will argue that it is not. What we wish to discuss is whether the forms of awareness they cherish are real, sound and healthy, or are they unreal, unsound and unhealthy? We want to know whether the language of this subculture "describes things that aren't there"; in short, whether radicals are experiencing the sociological equivalent of an hallucination in their hopes for social change.

THE MIND METAPHOR

Hang ups, hassles, bum trips, visions, crashes, paranoia, flips, freak outs, being stoned, zonked, spaced, and vibrations, are words which the psychedelic dialect uses to describe forms of consciousness which are readily admitted to characterize the subculture's style of awareness. In short, they are far from oblivious to what *we* might call fixations, obsessions, psychiatric episodes, hallucinations, depressive states, paranoia, lapses of consciousness, frenzies, narcosis, euphoria, empathic identification, etc.

The problem seems to be that they often value such experiences positively, whereas we are more likely to view them as pathognomonic indices supportive of diagnoses of mental unsoundness. This is something of a paradox, since a major part of their awareness of such phenomena derives from the fact that they are the most psychiatrized generation in history. For, if by technology we mean the logic of a set of techniques, we may say that the psychedelic generation has been made more aware of the logic underlying psychiatric techniques than any prior generation in history, precisely because of the widespread adoption of the techniques of psychiatry in contemporary America. Similarly, shall we dismiss their largely negative evaluation of contemporary American social sciences as spiteful

reaction formations, or are there grounds for concluding that their rejection is healthy and sound, notwithstanding the fact that they live in one of the most thoroughly social scienced worlds ever to occupy the planet.

In other words, how shall we account for the fact that psychedelic language seems to adopt words and phrases derived from the mechanical technologies they deplore while rejecting words and phrases derived from the psychiatric and social technologies they have been raised on.

Although the answer to this question goes to the heart of the matter, and will help us to distinguish sound from unsound myths, metaphors and fantasies, there is one further paradox we must confront before we can spell the answer out. It was to this final paradox that Wittgenstein alluded when he said: "Whereof man cannot speak, thereof should man be silent"^{1 3}. He referred to the fact that in each of our lives, we fling a bridge of shared meaning across that chasm which separates our tiny individualities from that massive infinity which is the universe of all (or no) meaning.

Culturally, we know that a population will collectively erect this bridge by consensually validating a set of beliefs, or myths, which enable the consciousnesses of that people to be shared. Yet, like the fantasies which egos erect to preserve sanity, they remain largely out of awareness, i.e., unconscious. When challenged, such myths and fantasies will be vigorously defended by the persons or populations espousing them, since they feel they require them to remain sane. Their content is the wisdom of things unseen, and their function is to *maintain* unseen the very bases of consciousness, without which consciousness could not be, yet with which consciousness cannot be conscious *of* its bases.

So it is with the psychedelic dialect, which is based on premises of which it seems unaware, just as psychiatric and social science are

based on premises of which they are largely unaware. And, just as it is the proper function of research to uncover these assumptions (or myths) so that we may learn a little more about what makes us human, so it is the proper function of psychedelic protagonists to uncover the assumptions (or myths) underlying the trip philosophy, and its attendant forms of consciousness.

But how can those devoted to psychedelic exploration seek the help of psychiatric and social scientists if those scientists begin with the assumption that psychedelic explorers are *ipso facto* unwell, devoting their time to exploring the blind alleys of mental pathology. If most scientists say that tripping *is* hallucinating, and that ends that, we should expect psychedelic protagonists to reject the so-called "scientific assistance" (e.g., psychotherapy) just as peremptorily as science rejects theirs. Which both of them, in fact, do.¹⁴

If a person wonders whether his paranoia about being arrested and hospitalized for observation is real or delusional, where does one draw the line between the likelihood of his arrest and his alleged paranoia? For, the more he reveals to the establishment his preference for those forms of consciousness he consensually shares with the members of his own subculture, the more likely *is* his arrest. How do we know that his feelings of profound distrust are sound or unsound merely by listening to him, when the establishment constantly barrages him with "information" saying that he and his whole subculture are "sick". More to the point, how *is he* to know? Faced with a culture which seems to him to prefer to remain unconscious of its own genosuicidal tendencies, how can we expect his culture to trust ours? And it is no use arguing that each culture has a right to its own myths, metaphors, and fantasies, for the fact is that the establishment (though not its avant garde) simply condemns the psychedelic enthusiast, if not for his pathology, then certainly for his imprudence. Let us inquire how this situation came about.

ACHRONY

Just as a simple list of words fails to capture the nuances of a dialect, so the simple enumeration of those technologies in our ecosphere fails to depict the complexity of those forms of consciousness which must experience them. We cannot simply add the impacts of the technologies rampant in our society, since each is quite distinct, and we scientists know that it is not permitted to add apples, oranges, and say, pills. But even if we had simple numbers measuring the impact of our several technologies, we would be forced to multiply, not add them, to approach their true impact — which I believe to be so vast and far-reaching in their multiple impact that nothing comparable has ever before happened to the human species. I think the total impact of the technologies of our age has produced a generation more unlike its parents than its parents were unlike the apes from whence they sprung.

Permit me to explain this conclusion, which might otherwise seem to be an hallucination. All human cultures so far have been characterized by a *pace* of evolution sufficiently slow to permit parents to transmit their lifestyles to their young. Apes did this, but poorly, since their communications were restricted to a relatively few media, such as imprinting¹⁵, kinesics¹⁶, or direct mimicry. Humans mastered another whole universe of symbols when the neocortex permitted the invention of language¹⁷ and other symbolic media, e.g., music, paint, sculpture, etc.* But 20th century technologies have changed all that, for we now invent culture faster than we can transmit it, even *with* electronic media which process billions of bits of information per second. Hence, the so-called generation gap is in reality a chasm we in the establishment cannot bridge because the gap is widening faster than we can build across it. It is a situation which prompted Margaret Mead to observe that now, for the first time in history, our children must become our teachers.¹⁸ But even

*and *vice versa*

that forecast seems optimistic, since there is no guarantee that we could learn fast enough even if we tried, and we don't even seem to be trying.

There seem to be temporal strata in our society very like those geologic strata which mark the ages of the earth; there are faults and fissures in our culture like those on the surface of our planet; there are mountains and valleys in the temporal nature of our contemporary experience; yet, we are strolling about as if we were still in the garden of Eden while our children are screaming warnings to us that the species Man is in great peril. We will often be in error if we mistake their cries of warning for the shouts of children gone mad. I am saying that their mythos is valid if it says our society must be made over because it is based on an obsolete warrior culture, and that we must soon learn to make love, not war.

A generation whose vision is so drastically other than ours might well regard itself as "freaks", that is, a race of mutants who find themselves alone and afraid in a world they most emphatically did not make, but who accept the responsibility to make it over, lest they too perish.

I am saying that their metaphors are valid if they hold that we are like blind men walking the steep cliffs of species suicide, and that their communal philosophy of brotherhood promises a better chance of species survival than the bureaucracies we presently inhabit. I am saying that very often, we accuse them falsely of hallucinating because they see things we say aren't there because we refuse to look at them, e.g., imperialism, genocide, racial oppression, ecological poison, and a generalized reign of psychological terror and violence supported by threats of nuclear and/or germ warfare. In such a world, he is mad who is not paranoid.

So that the citizens of psychedelia should receive no more glory than is rightfully theirs, we must recognize that their responsibilities

are as staggering as their "pathologies". I do not claim that they are *without* pathology, that *all* their myths are right, that *every* metaphor they use to distinguish themselves from us is true, that *each* fantasy is beautiful and fine and good. There are "sick" ones, to be sure, and broken ones, and lost ones.

But the point lies deeper. In an age whose technologies thrash the waters of time about so violently, by unleashing wave after wave of rigid and turbulent social change, we shall all be caught, one way or another, in cross-currents which pull us now one way, now another. Therefore, it no longer suffices to say that we live in an age of anxiety, or a period of alienation, or an era of anomie, because, in our time, those pathogens are not only chronic but accelerating their influence. It seems, to paraphrase Shakespeare, that time itself is out of joint, a condition we have termed "achrony".

Achrony describes the plight of those caught between discrepant rates of experience. It seems to me that the term fits the psychedelic generation, who have been forced to endure more rapid shifts in the rates of their experience than any before them, engendered by the most powerful and the most rapid world-changing technologies man has ever invented.

The miracle in such a world is that so *few* of them hallucinate, that is, mistake for a direct sensory experience forms of awareness that derive from another time, be they memories (voices) from the past or visions (terrors) of the future.

CONCLUSION

You have by now no doubt become aware that I have been making a rather unsubtle plea. I will make it explicit: Fellow scientists, in our confrontations with the long-haired, freaky-clothed

members of the psychedelic generation, let us make particularly special efforts to understand their political condition as the context of their psychological lives. Let us distinguish sharply between the madness of our civilization and what may only be the sadness of the child before us. And let us try to remember that all men are like all others in some aspect if we but look deeply enough.

METARAP: WHO YOU ARE IS HOW YOU CHANGE

(An essay on Temporal Stratification and/or the
Cybernation of Transcendence)

Rap I**1. A.N. WHITEHEAD, 1938**

The planets, the stones, the living things all witness to the wide preservation of identity. But equally, they witness to the partiality of such preservation. Nothing in realized matter of fact returns complete identity with its antecedent self. This self-identity in the sphere of realized fact is only partial. It holds for certain purposes. It dominates certain kinds of process. But in other parts of process, the differences are important and self-identity is an interesting fable. For the purposes of inheriting real estate, the identity of the man of thirty years of age with the former baby of 10 months is dominant. For the purposes of navigating a yacht, the differences between man and child are essential. The identity then sinks into metaphysical irrelevancy. In so far as identities are preserved, there are orderly laws of nature. In so far as identities decay, these laws are subject to modification. But the modification itself may be lawful. The change in the individual may exhibit a law of change, as for example the change from baby to full grown animal. And yet such laws of change are themselves liable to change. For example, species flourish and decay; civilizations rise and fall; heavenly bodies gradually form, and pass through sequences of stages.

2. MARGARET MEAD, 1970.

Today, suddenly, because all the peoples of the world are part of one electronically based, intercommunicating network, young people everywhere share a kind of experience that none of the elders

ever have had or will have. Conversely, the older generation will never see repeated in the lives of young people their own unprecedented experience of sequentially emerging change. This break between the generations is wholly new: it is planetary and universal.

3. BUCKMINSTER FULLER, 1970.

Is the human an accidental theatergoer who happened in the play of life – to like it or not – or does humanity perform an essential function in Universe. We find the latter to be true. . . In 1951 I published my conclusion that man is the antientropy of Universe. Norbert Weiner published the same statement at the same time.

4. BUCKMINSTER FULLER, 1970.

Within decades we will know whether man is going to be a physical success around earth, able to function in ever greater patterns of local universe or whether he is going to frustrate his own success with his negatively conditioned reflexes of yesterday and will bring about his own extinction around planet earth. My intuitions foresee his success despite his negative inertias. This means things are going to move fast.

5. THE BEATLES – IN ABBEY ROAD.

“And in the end
the love you take
is equal to the love
you make.”

Rap II

Wouldn't it be a groove if we could sit back now and breathe a satisfied sigh of relief now that the sixties are over, and say, well, we made it through. It certainly was a freaky 10 years. Computers, acid, rock. Whew.

Of course, we can't. Now world ecology has to be done, or no

more man. Tempting as it might be to rest a while, we know we either put the planet together in a new way or we're finished. Done.

There seem to be a number of approaches.

1. SOME SAY:

We'd better hurry up and industrialize the "developing" nations or they'll gang up and wipe us out. Spread the wealth. Sure, capitalism isn't a perfect system, but what is. Industrialization would at least feed 'em and clothe 'em, right?

2. OTHERS SAY:

Listen, that capitalist rap is thirty years dead, man. Haven't you heard about electronics and the *second* industrial revolution. We don't process matter (energy) anymore — we process information. People don't have to work, pulling levers any more. Any repetitive process can be programmed, electronically. Automated, man.

3. OTHERS:

What are you guys talking about. Don't you realize that we're in the mess we're in because nobody paid any attention to the *systems* those automated processes are part of, so now we have a polluted planet. From now on, we have to figure how automation relates to the ecosystem. Haven't you ever heard of feedback. You know, where the "effect" loops back to influence the "cause". From now on, we either plan for how our machines feed back on our life styles, or, like Leary said, all the metal back underground. I'm not for electronic *laissez-faire either*, man.

4. STILL OTHERS:

I find it hard to get into your progress metaphors. They all seem to ignore the terrible pain we're all in. I mean, how can you dream of rosy futures while Vietnam is tearing the skins off hundreds of thousands of young guys like us, while the pigs are practicing genocide on the panthers, while the trial is screaming that justice is only for the silent majority. Not to mention what they're doing to us.

My scene is to let it bleed. I don't wanna fix it. It's broke, man. We need a new one. So, some of us got our shit together, built a dome out in New Mexico, and we live close to the land. No more mine-yours games, no more technology. Just getting into each other, man, finding that quiet still center within ourselves.

5. OTHERS STILL:

Jesus. You sit out there in the woods all peaceful and groovy but somebody *else* has to keep them off your back. You think they're gonna leave you alone, man, with your "sexual communism" and your dope and your "deprived" children. You think you can just concentrate on what's going on inside your head, and make believe you don't hear the whole civilization crashing into ruins all around you. Wake up, man. They're killing your brothers and your sisters right now, and you're next.

Rap III

1. FIRST OBSERVER:

Obviously, they're all correct. The electronic industry is probably more aware than they are that national boundaries are obsolete. The synchronous satellites are only the top of the iceberg. Trans-national conglomerates became necessary as soon as data banks in the computers could handle the complexity of a thousand branch offices. And before that, radio, telephone, jets, and television went beyond national boundaries.

The problem is not *whether* to spread the wealth, but *how*. Right now, we've got three political ecosystems; — us, the Russians, and the Chinese — worrying about how to get the Africans and the rest of the "little" countries on their side, like South America, or India, or the Middle East. To borrow a phrase from the kids, the concept "nation" is not where it's at. The problem is, how do we get beyond ideologies and belief systems which define spreading the wealth as imperialism, Communism, Maoism, what have you. Personally, I think the kids are gonna do it. I mean, kids all over the

planet are more like each other than they are national citizens, and I give them a lot of credit. They're gonna do it. I'm confident.

2. SECOND OBSERVER:

Sure, sure, the kids are a new post-industrial culture, beyond ideology and all that. Sure they live in an electronic ecosphere communicating planetary consciousness with each other like puppies at the teat. They don't have to work because the computers will do it all. Don't you see, though, that that is precisely the problem. They have to come up with a new "post cultural" culture so they'll be able to live in their electronic ecosphere, but there's absolutely no precedent for coming up with a new planet-wide post-electronic culture. So *how*, to borrow your phrase, are they gonna do it. Even the universe didn't do it *ex nihilo*.

3. THIRD OBSERVER:

They won't have to. Didn't you hear 'em talking about cybernation and systems theory. Our minds boggle at the thought that each and every last unintended consequence of every little flea bitten automated factory product will have to be reckoned into the bargain, but, fer chrissakes, that's what computers are, don'tcha see, the screw driver that comes with the general systems theory manual. Instead of thinking about the hardware all the time, try to realize that the kids *are* designing the software. What do you think rock and roll is. What about those costumes. Aren't their communes attempts to get past the wreckage of the nuclear family, that casualty of industrialism? Their whole generation seems marvellously capable of responding to our technosphere with an ecosphere of their own. Don't you think the kids raised on computers and television, the kids now in grammar school, are going to be sufficiently flexible to take the steps they'll have to take. I think, just as the industrial generation came up with liberalism, and the computer generation came up with acidoxxy, well, in the same way, the current generatibn is gonna come up with a hip version of cybernetics. They've had their McLuhan to cut their eye teeth on, so their politics is McLuhanesque. Look at Abbie Hoffman. Uses the media like a stick ball bat. He knows about feedback, let me tell you. And his kids are not gonna take any

nonsense from trans-national conglomerates *or* the Soviets *or* the Maoists. They're gonna use the planet's media like Tom Paine used pamphlets. I think technology has met its match in the next generation. They're gonna make it serve them, not serve it, because they're not content to be the software for a hardware they can't control.

Don't tell me about no precedents. They've got plenty, and then some.

4. FOURTH OBSERVER:

You're all missing the point, although I agree with what's been said. Using your own cybernetic metaphors, you could arrive at a more general formulation than you have, instead of getting stuck on the particulars, as I think you have. Look. Even Marx recognized that a given technology (or means of production, if you insist) calls forth a given ideology (or culture, with your permission). So, we design an electronic technology and they obligingly come up with hip cybernetics. The point is, *can they come up with a new culture before a new hardware system elicits it*. In other words, if a new consciousness is always a *response* to a new technology, how do we know that the technologies now on our drawing boards — say, Tri-d — are going to elicit a brand of culture that will get us by — that is, insure species survival. The problem, it seems to me, is much more serious than you guys seem to have seen.

Put it this way. What if man is a feedback loop for planetary evolution, that is, man's role is to monitor life on the planet. If so, he may be able to adjust a few things here and there, turn a few dials so the boilers don't blow up, so to speak. But that doesn't give us any guarantee that he can design a better planet, or a better man, for that matter.

I'm asking whether the feedback theory of consciousness provides any hope at all. If it's an after-the-fact mechanism, I don't think it offers us any hope at all. More specifically, if you think all those kids out in those communes are doing anything more than

becoming conscious of their condition *after* they're in it, I'd like to be told about it.

5. FIFTH OBSERVER:

You don't understand feedback, or some other other things I'm gonna tell you. Let me start with an example. You know what happens after a forest fire. The forest goes into a condition of positive feed, proliferates like mad, changes its rate of growth, not because it wants to, as the teleologists would have us believe, but because the surrounding systems it interfaces with no longer maintain it through their feedback on it. Its growth becomes unchecked for a while, like a computer programmed to scan without any limits put on it. It becomes a temporary runaway, you might say.

Now, very similar processes occur in human populations. You can see it in demographic systems, and even more generally, you can see it in norm systems, that is, in whole cultures. You can even see it in psychological terms, when kids "blow their minds" with some chemical or other, which removes the nice neat negative feedbacks imposed on them by their surrounding ecosystems, let's say, families and/or schools.

Similarly, when a new technology is introduced, you don't just get a response to *it* — you temporarily release the culture from its priorly programmed equilibrium with its peer cultures so that, for a while, its inhabitants are freed up to grow wild for a time, before a new set of negative feedbacks lock in.

I see it as a kind of breathing, a kind of rhythm characteristic of any system. Call it cybernetic music, if you want. So, if I'm right, what this means is that the whole electronic revolution did not just spawn a bunch of hairy rock and roll respondents, although it certainly did that. But not *just* that. It cut loose a generation of kids from a set of obsolete (i.e., no longer enough) norms that were locking them in, asking them to live in the post-industrial ecosphere with feedback loops still hooked into the old Newtonian mechanics.

The point is, when electricity turned 'em on (by turning mechanical feedback *off*), they proliferated, not just like a forest, with more of the same *kind* of trees, but came up with something *new*, that wasn't there before. *That's* how this planetary consciousness came about. But, beyond that, the point is that feedback, both positive and negative, does not simply maintain systems in equilibrium. Somehow it combines to create things that weren't there before. *Ex nihilo*. Whether they're new forms of consciousness on a given planet, or new planets in a given galaxy, human consciousness is not unique in creating, not just responding. The whole universe seems to do it. And I think the kids are catching on to that fact.

One final illustration. One afternoon, we were sitting around in the office, and somebody asked whether I thought the universe was running down, you know, the entropy form of the second law, and if it was, how did I account for evolution. And did we think the universe was running down because our society was, or was our society coming apart because the universe was.

So I trotted out my Fuller memory and tried to explain that there seemed to be two aspects of Universe that were not customarily seen together, that just as there is radiant, or dissociative, energy, so also is there emergent, or associative, power, which Fuller calls synergy. So that things don't just come apart, they also come together. In other words, it's a mistake to talk about receding galaxies without also talking about gravitation, just as it's a mistake to talk about cultural *disintegration* without also talking about new forms of cultural (or post-cultural) *integration*.

Now don't get me wrong. I'm not saying that there seem to be nice neat forces at work in the universe which we can ride like surfers so we have nothing to worry about. That's sort of like saying isn't it nice our legs just reach the ground. I see nothing in these generalizations to guarantee that man the species has to make it. Maybe we're dinosaurs and maybe there's a new environment growing that we can't live in.

But I don't think so. I think what's happening is that we're gradually beginning to use more and more of those neurons the shrinks are always telling us we're only using 5% of, that we're giving ourselves challenges now that force us to become the creators, rather than the creatures, of evolution. It may be, and I think it is, that the time has come for us to think of "consciousness" and "culture" as only 2 of a larger set of parameters, and that they're not particularly cordial ones at that, locked as they always have been, till now, in a series of feedback loops we don't particularly care for anymore. And the guys who say there are no ways out haven't got a shred more evidence than the guys who say there are.

I dunno. Wasn't it James who said there are forms of consciousness as different from what we call normal waking consciousness as that is from sleep. Seems like there oughta be. I'd hate to think we're the most advanced life forms in the universe.

Metarap I

Critias: How is the century proceeding?

Timaios: Not bad. Not bad at all. Mathematicians recovered quickly when Godel showed them no postulate system can remain perfectly consistent if carried far enough. Reimann took them beyond Euclidean space. Einstein of course opened the way for new theories of time, but they're still a little wary. It's hard for them to think without simultaneity — makes them feel the universe isn't *there*, you know. Still, they've developed the calculus. Made some moon shots already.

Critias: That's promising. How about their music?

Timaios: Same there. Looks good. They went atonal a while ago. The young have a form they call rock which unites poetry, folklore, protest, etc. Electronic sounds are strangely beautiful, in their primitive way. Some of the abstract ballet is magnificent too.

Critias: Art?

Timaios: Earthworks. Holograms. Light. Fine. Very fine.

Critias: Physics?

Timaios: Wonderful. They're just crossing the bridge between sub-atomic "particles" and sub-nuclear fields. Fellow named Gellmann looks very promising, and another named Feinberg may just have a way for them to generalize Einstein. A few of them are trying to detect gravity waves. Shouldn't be long before they master them. Also, some pretty interesting things happening with lasers, communications hardware, and the like. More interesting, some are beginning to wonder why some life forms (populations of bacteria, for example) seem to "obey the same laws", as they say, that populations of gas molecules do. Shouldn't be long before they find that the *rate* of negentropy is very slow at the gas level, and gets faster as you go up the evolutionary scale.

Critias: What about war technology. Are they still constructing those deadly systems?

Timaios: Yes, but the young seem to be withdrawing from all that. Culture lag. There are still a large number of "neutral" technicians employed in war industries but I think it'll phase itself out as the young mature.

Critias: How about their therapists. How far have they gotten?

Timaios: That's a bit more complex. Some overlap with the social scientists, but they're all so stuck in their craft unions. The medieval thing. Psychiatrists either clung to biochemistry or psychoanalysis for a while. Then they found groups, then families, etc. Some of them are going quite far, actually. Systems approaches, communication contexts, ecology. Beginning to see that *any* level below can be programmed by the next

level up. Like the physicists. Too bad they don't talk to each other very often. Social Psychiatry looks good, if they can figure out a way around the so-called community mental health centers, which got coöpted by all that money. But the communities themselves are forcing an evolution. The Blacks and the Puerto Ricans. Magnificent people. Great dignity.

Critias: An old story. The people grow beyond their chains. Tell me — is there joy?

Timaios: Among the youth. They are the only ones. They found certain chemicals, much like the Hindi used to use, and released themselves from the self-prisons which mirrored their machines. It wasn't long before they found that transcendence could be facilitated if one had enough friends of like mind. At first, they used them mainly as aphrodisiacs, but they soon found the experience of awe was a door to higher realms. Very hard for them to do, since their whole culture was going the other way, so to speak. But they are doing it. They rear their children differently, they revere each other, stare gently into each other's eyes for long periods. What is most promising is that they now experience time dilation, in which, as you know, minutes seem like hours, hours seem like days, and days seem like weeks. During such experiences, when the veils of illusion fall from their eyes, they probe new depths, ascend new heights, widen their vistas, but most important, they do so together. Hence, they begin to build the foundations for the next era.

Critias: What do you think is next for them?

Timaios: As I said, the young are now aware of time dilation. It will not be long before they find ways to guide the rates of any process, be it space flight, planetary ecology, cultural integration, psychological maturation, or anything else they desire.

Critias: Have they begun temporal design?

Timaios: Not yet. But, as I say, they're beginning to rear their young differently, as citizens of the planet who cannot bear to see any starve while they have food, any killed while they have life, any lonely while they have mates. They do not tolerate wealth while any need, nor do they honor progress here at the expense of regress there. The most sensitive among them are accustoming themselves to living in continuous change, and are beginning to thrive on it.

Soon, they will find that even change changes, and will have to accustom themselves to that process as well, whether it changes slowly or rapidly.

It is difficult, Critias, for me to distinguish my hopes for them from my estimates of their future. They seem to know that joy is the emotion which accompanies transcendence, but they seem reluctant to swim in the oceans of time even while they begin to enter endless space.

Critias: How old are they?

Timaios: About a million years, in their present form.

Critias: And you want to hurry them. Let them cling like puppies to the breasts of their cultures. They will be gone soon enough.

DRUGS AS CHRONETIC AGENTS

INTRODUCTION

In previous chapters we have reported data derived from participant observation of the various scenes in which young people use the drugs of their choice in the special ways they have chosen. For the most part, the observations were carried out with one or another drug the focus of our investigation. For example, we examined the heroin scene and reported on it to the exclusion of the other drugs concurrently used by the heroin users. Similarly our investigation of so-called "glue sniffers" was conducted and reported separately. The same is true of our reports of the psychedelic scene.

Our reasons for doing so were partly historical, since the heydays of various drugs were at different times, and partly practical, i.e., one cannot discuss everything at once. But the principal reason for the separateness of our studies was a theoretical one, in that each drug study was conducted as an empirical test of a set of hypotheses derived from a larger theoretical interest. We have for some time now been engaged in the study of time processes, i.e., how time and its mysteries are understood in the various disciplines, ranging from astrophysics to anthropology. Our attempt has been to derive a set of generalizations descriptive of time processes in ANY discipline, in other words, the study of time itself, not simply the time of the physicist or the psychologist. We call this study "CHRONETICS", and define its scope as the study of temporal processes in their own right. We seek, in short, to determine whether there are general laws which all time processes obey, and if so to determine what they are.

The first problem we confront in such an effort is one with which all investigators are confronted, no matter what their field, namely, to what extent is our ordinary experience a bias which

blinds us. In other fields, say, geology, one may experiment with the elements of one's concern, e.g., rocks, rivers, rain, etc. But how does one experiment with time? How do we know whether the assumption is correct that time is an invariant, which "flows evenly", to use a popular expression, or whether the assumption of invariance blinds us to possible variations in temporality. It is tempting to regard recent evidence from physics as confirming the view that time varies considerably at subnuclear levels of observation, and hence that time may also vary elsewhere. But this courts the danger of going beyond the limits of the data.

Thus we were struck very early in our investigations by the almost total unanimity of our research subjects' reports that their drug experiences altered their experience of time. A similar unanimity is found in pharmacological, psychological, and phenomenological reports, further confirming our subjects' views. In the remainder of this chapter we shall attempt to summarize our previous findings concerning which drugs change the experience of time in which ways, and to justify our tentative conclusion that drugs are taken by those who take them (indeed, also by those who prescribe them) principally for that reason, namely, to alter the rate of experience.

In addition to this psychological effect, however, we shall endeavor to show that the temporal aspects of certain social processes are also involved, so that when we refer to drugs as chronetic agents we are not restricting ourselves to exclusively subjective or psychological parameters but explicitly to those aspects of experience with which the sociologist is rightly concerned, which we might call sociological architecture.

In this sense, notwithstanding the summary nature of this paper, the investigations here reported must be regarded as preliminary, for it is a long way from demonstrating that our experience of time may vary under certain conditions to establishing that there are

laws of time variation whose discernment the chroneticist properly pursues across the ranges of many disciplines.

We invoke as our measuring instrument the cybernetic notion that human beings in their subjectivity as well as in their sociation may be heuristically regarded as information processing systems, characterized initially (and minimally) as receivers, programmers, and broadcasters. That is, we perceive, think, and communicate. And of course, more. Much more. How do drugs alter these processes?

CHRONETIC PHENOMENOLOGY

There are three classes of drugs with which we are concerned, which in the street language of our subjects are called "downs", "ups", and "trips", referring in the first case to narcotics, sedatives, barbituates, and alcohol, i.e., CNS depressants. Trips include marijuana, LSD, mescaline, psilocybin, psilosin, etc., i.e., psychedelics, to employ Osmond's term. As every neurologist knows, heroin, morphine, methadone, *et.al.*, have the property of constricting the pupils of the eye, which the street talk calls being "pinned". Of course this means that less light is entering the retinal chamber and indicates that the amount of information the subject tolerates is reduced in proportion to dosage. The "input" function to the higher cortical centers is sharply reduced by narcotics, not only visually, but across the entire sensorium.

Subjects report that the heroin high is like the astronaut's perspective in that time changes in the environment are seen as from a great height, so that the net effect is an experience in which things seem to go very slowly, if at all. At high dosages, "time seems to stand still", so that the euphoric experience of timelessness seems paradoxically to last forever. This helps to understand why the heroin experience is so cherished by those who cherish it. Even though, to the outside observer it seems to last for such a "short" time, to the serious heroin user, time seems to have stopped, and his joy is eternal. Our subjects report it is exactly this temporary eternity they seek. So do the makers of the 7,000 year old Sumerian tablets which instruct the religious novice in its preparation.

Ups, on the other hand, have an entirely different set of subjective reports associated with them. One subject described his experience of "meth" (speed) as follows:

Hey, man, dig it, here's how it feels. . . .Do you like to drive fast in your car, man. Imagine you have this racing car, see, with no windshield, see, and they say you can have NYC all to yourself with all the other cars gone. So you go speeding around corners at 90 and open up to 200 miles an hour along Park Avenue, man, whizzing, and spinning around the whole city all to yourself. You can do anything as you want, an' you can go as fast as you want to go. Dig it man, imagine all that power just *walking*, man, or *screwing*. Wow.

Clinicians will be sensitive to the omnipotent undertones in our subject's report, to the grand ideas of power and exhilaration. They will not be unfamiliar with the fact that "coming down" or "crashing" from "speed" (meth) is severely depressing, often to the point of persecutory ideation and feeling characteristic of the paranoid experience.

Note, however, in our subject's report that it is the *rate* of his experience he centrally cherishes. So much is this the case that he will often use too much, then resort to barbituates to slow down, in what soon becomes a cycle of speeding, slowing, then speeding again, for days, sometimes for weeks at a time, with little thought of food, sleep, or sociation. The fact that speed is alleged to confer long periods of sexual potency bordering on Priapism is considered to far outweigh the fact that it renders the serious user anorgastic. It is as if one were trying to move faster than time itself, squeezing in more than mere clock time permits.

Speed "freaks" are notorious broadcasters, who will talk without interruption for 4 or 5 hours, at a very fast clip, usually to the considerable consternation of their "straight" friends. They believe they understand things superbly well and deeply for the first

time and are very eager to share this new-found wisdom with anyone who will listen for as long as they will listen. This seems to be due to the fact that the CNS is stimulated, not at the perceptual-sensory level, but at the higher cortical levels, so that sensory information is processed faster. It is exactly this rapid illumination speed freaks report they want.

“Heads” or adepts of the psychedelic experience well know that trips seem to last far longer than clock time measures. Even a half a marijuana cigarette will permit the smoker to feel that a three minute musical selection has the temporal characteristics of a symphony and the four hour high correspondingly feels like 8 or 10 hours. Acid (LSD) a far more potent drug, is almost impossible to describe to those who have not experienced it. Like sex, talking about it doesn’t quite convey the qualities of the experience. For, in addition to its ability to vastly expand the range of sensory delights, LSD induces the most complex chronetic patterns yet known to man, such that serious users regularly report variations in the variations of the time experience. Moments of eternal stillness alternate with extremely rapid pulsations and rhythms: feelings of rest, velocity, acceleration, and changes in acceleration are common, and reports of even more subtle and complex changes in time experience are common. That this experience is deliberately sought is indicated in McLuhan’s aphorism that the computer is the LSD of the business world (just as) LSD is the computer of the counter culture.

What computers and acid have in common is the processing of information at extremely high speeds. Computers operate in nanoseconds. No one knows how *low* LSD reduces synaptic thresholds, nor, consequently, how *high* it increases the rate of neural firing. What is well known, by heads at least, is that, in addition to its ability to open wide the “doors of perception”, acid is also well named, for in the cybernetic analogy what seems to happen is that the *amount* of *data* is increased while the *programs* for its conceptual management are simultaneously dissolved. It feels like a fuse has blown, so that too much current is flowing. (Hence, the expression “mind-blowing”.)

It is exactly this experience of sensory overload, de-programming, and re-programming, that heads seek. Whether the insights and experiences had with this powerful substance are "valid" or "illusory" is a question for more research than present federal laws currently permit. Suffice it to note that the extremely rapid chronetic changes LSD includes are cherished by those who favor LSD, as well as the feeling that a 12 hour experience of this sort is regularly compared to a week or a month of continuous ecstasy. In this context, one is not surprised to find recent opinion in theological literature holding that the sacred mushroom (*amanita muscaria*) was the agent inducing the mystical experiences that led directly to the formulation of the major world religions.

CHRONETIC SOCIOLOGY

If we focus now upon the *population* who favor the drugs discussed above, not simply upon the subjective experiences of their individual members, a chronetic pattern of another sort emerges. Brevity prevents an extended discussion of the "measuring instrument" we employ as a sociological tool. Suffice it to say that *the rate of social change* is increasingly adopted as a criterion in the social sciences, in our era of rapid social change. If we ask "what is the relation between our three classes of drugs and the rates of social change experienced by differing classes in America," a clear pattern becomes visible.

Thus, until very recently, narcotics use was principally the predilection of the lower class, whose rate of change was widely acknowledged to be the slowest in the fastest emerging society in the world. This experience, which we have elsewhere termed "anachronistic", is severely "painful" to those who experience it, since it is not only an experience of extreme alienation, but of *increasing* alienation, whose *rate* of increase is increasing. Under such circumstances, heroin might be said to be the medication of choice, since it is *par excellence* the pain killer. It is a situation in which one might turn around Marx's classic phrase that religion is the opiate of the people.

Unfortunately, as the *rate* of alienation increases in the middle class, we find an increase in the incidence of narcotics there as well. This is becoming more widely known every day.

The upper lower and the lower middle classes are not, as a group, experiencing a rate of social change identical to the lowest class. In fact, it seems that we have an explanation for the popularity of “ups” in this population when we note that their wish to “catch up” with the bourgeoisie who are “moving up” faster than they is temporarily granted by a class of drugs whose property is to confer the illusion of acceleration. Note also that the illusions of “progress” and “getting ahead” are beliefs entertained by this group far more actively than the lowest class, who despair, or the upper middle class, who pride themselves on “having arrived”. The “violence” often attributed to the “coarse, gruff, working culture” is not untouched by speed’s illusion of omnipotence, nor by its stimulation and feelings of social persecution. They “go” together, as it were.

The most rapid rate of change in our society is experienced by those who, like the computer, must process vast amounts of information in a very little time, i.e., the most highly educated, those whose participation in the cybernetic revolution of our times is deepest. Typically, the children of upper middle class parents are those most barraged with novelty in our society, since they paradoxically have the leisure time in which to suffer from information overload. The Berkeley rebels were born the year mass TV was born, and study after study reveals they spent more time in front of their TV sets than they did before parents and teachers *combined*. Not to mention books, magazines and films. Or the threat of nuclear holocaust. Or planetwide pollution. Confronted with the massive responsibilities to “solve” these massive crises, knowing that species Man will not long survive unless he quickly devises ways and means to turn away from a chemical which confers the ability to process huge amounts of information in a very short time. For theirs is the first generation for whom the experience of accelerating social change is the *norm*, and they know they have no choice but to thrive on it. Imagine their dismay when they are simultaneously com-

manded to thrive on change and do nothing to bring it about. Their patience with the slow moving institutions which thus double bind them is therefore somewhat astonishing.

Let us hope it doesn't wear too thin. For they are, literally, our future. It is for them that we must attempt to discern the laws of time and change, for without knowledge of these laws, we seem, as a species, about to perish. With such laws, hopefully, the next generation might have a chance to become chronetic agents of an entirely new kind.

FREQUENCY AND FORM

What I am doing with my life is building a set of generalizations comprehending how time works. I call the comprehension of the time laws of any process "chronetics".

I've been working at it a "long" time and have done it in some strange places. Like, a dissertation on Plato's theory of time, which started in '58 but didn't come till '63. Like, in '65 getting a videotape system installed in a family therapy agency so that families and therapists could play back their sessions during their sessions. Like getting headaches trying to transform the laws of general relativity into classroom sociology since 1953, though I hate the math. Like trying to figure out acid time expansion during acid time expansion. Etc.

This rap is about the chronetics of software, in other words, some thoughts on the time forms of current communication events.

As everybody knows, Universe is *not* a very large expanding balloon with galactic light bulbs interspersed "at" varying distances. Einstein told us Universe is not a *simultaneous* assembly of things. Universe isn't *there* — in fact, man's invention of the concept reveals his terror crouching behind a facade of omniscience. Currently, our mythos is that Universe is "really" atoms (i.e., waves of energy spiralling at light velocity) arrayed hierarchically (i.e., a few is a gas, a lot is a planet, a very lot a galaxy, etc.). Whitehead said the *only* philosophical mistake you could make (hence the error of *every* philosophical mistake) was thinking you could simply locate anything anywhere. This "fallacy of simple location" is the intellectual form of man's wish to evade the terror which would flood him were he to admit the Heraclitus vision that all is flux. The emotional form

of this saving illusion is hubris — pride — the myth of individual autonomy, the “pursuit of loneliness”. Freud once wrote that the human central nervous system works like the osmosis process of the cell wall, whose main function is to keep some fluids in but most fluids out. Fuller suggests the inside is the inside of the outside — the outside the outside of the inside. Laing ponders why some people who spit in a glass of water can’t — *can’t* drink it. Others can. Recent experiments by Italian physicists, who ran electrons going “one way” against positrons going “the other”, both “at” the speed of light, lead them to believe there’s another whole realm “underneath” quantum atomics which is continuous, i.e., not “composed” of quanta, but of processes.

So in my view, there is no Universe anywhere, “at” any instant, for there are no instants. Better — “there” isn’t. Time is. What seems to be happening is a myriad of energy rates dyssynchronously modulating. Nobody seems to know why there are different rates, or how they change. Recent speculations include a realm on the “other side” of the light velocity barrier wherein “particles” only go faster than light, and if they slowed down to light velocity would annihilate as in $E=mc^2$ (Feinberg). Others, at the Princeton Center where Einstein thought, wonder if there isn’t a realm under the atoms where time “goes the other way, or not at all.”

What I’m trying to suggest, in mosaic, is a Universe of varying frequencies, in which occasional synchronicities are called communication.

Now, some frequencies, after million year evolutionary periods of interacting dyssynchronously, have come into a harmony which we call sensation. Air waves and ear vibrations in synch result in our experience of sound. Light velocities in harmony with retinal photochemistry result in vision. Rates of neural transmission, when exceeded or unreachd, do not result in experience since there are limits within and only within which nerves fire. Overload or underload, outside certain limits, result in nothing. No experiences. No communication.

Hence, Fuller says, human “sensory equipment can tune directly with but one millionth of the thus far discovered physical Universe events. Awareness of all the rest of the millionfold greater than human sense reality can only be relayed to human ken through instruments devised by a handful of thought employing individuals anticipating thoughtfully the looming needs of others.”

This is probably an overestimate. There is no reason to believe that the tiny region of human synchronicity with Universe frequencies which is our band of experience is as much as a millionth, because it well may be that the range of frequencies goes from $-\infty$ to $+\infty$. I have no quarrel with Bucky’s adorable naturalism, but the range of options for synchronicity may be vaster than he has said. So far.

Even if the spectrum is *not* that large, it serves as a perspective on which to map the tasks of software design. Like Huxley’s remark that any good plumber could have done better than god-evolution with the human appendix, it seems to be the case that the human sensory channels are fairly crummy samplers of the range of universe frequencies. Hence, any software system which sets the outer limits of its responsibility as fostering the synchronicity of *present* human wavelengths could be guilty of a reactionary nostalgia. Filling in the gaps of the sensory range now is a *tactic* worthy of admiration, but it shouldn’t be confused with the *grand strategy* which, minimally, in my opinion, must include not only the design-expansion of the realm of human experience, but the design expansion of the range of synchronicities in our local region of universe. Man may be negentropy, but there’s more to Universe negentropy than man. How to tune in on *that* is the larger task. To say nothing of feedback.

It will be objected — “this is visionary — idealistic — there are many more pressing urgencies presently at hand.” To which a good reply might be “if you’re unaware of the spectrum you’re working in, you’re working with unnecessary blinders.”

To put the matter differently — the larger the generalization, the more significance (meaning, value, importance) the event. That's why we're interested in Cosmology. That's why we fly space ships. That's why we seek Atman, Buddha, Satori, enlightenment, trip.

Software, therefore, results whenever dyssynchronous frequencies are mediated, i.e., related in some form of temporal harmony. It is not very far from the Platonic vision that the music of the planetary spheres is in proportion to the ratio of string lengths on a lute, to the view which reveals that the fundamental units of software are the chords and rhythms of perception. It is utterly banal to hold that the "bits of digital information" metaphor comes anywhere near the kind of planetary orchestration man is beginning to compose. This vision can be ecologized by the recognition that software results not simply from passing items of perception around among human sensors, but whenever and however Universe frequencies are proportioned. Man is not the only Universe function producing software. It is an entirely common even in Universe, and may in fact turn out to be its fundamental process, i.e., how it basically forms, so that, to do it is to be like the Druids at Stonehenge dancing to the rhythms of the cosmos. Groovin', as it were.

But there's more. Recent evidence suggests that brain waves can very easily come under deliberate control, that alpha highs can be turned on at will, that autonomic nervous system-endocrine interactions can be accelerated-decelerated consciously, that, in short, electronic yoga is now an increasingly popular research sport. It begins to seem as if experience, not surgery, is the design avenue for the deliberate human evolution. All this before the mass availability of mini-laser communications technology, holographic environments instead of rooms/walls of plaster, liquid crystal read out systems, etc., etc.

So, it's time to ask — what are the chronetic laws that govern the accelerating process of which electronic software is only the current mode? By this I do not mean "how soon will the matter

transmitter be invented” or “will lunar language finally substitute Einsteinian categories for Aristotelian ones.” Such inquiries are an exercise in linear prophecy only, necessary but not sufficient. I’m more interested in temporal design and its prerequisites.

For example, sociologists have unwittingly placed at the foundation of their game the notion of “expectation,” by which they seem to mean what Eliot meant when he said the human kind can stand very little reality — raw. People seem to have to know how long a thing will be what it is to know how likely it will stay what it is so they can expect it to remain what it was so when it comes by again they can say — ah yes — that bit — nothing new (terrifying) there. They want to be able to anticipate recurrence and periodicity, so they can generalize, and say, oh yes, it’s one of those — I’ve seen it before — it won’t hurt me because none of them ever did before. When things (societies, cultures, groups, etc.) change fast, faster than they can be generalized, people experience future shock — they need to experience and generalize faster than they can. When they repeatedly fail, they conclude (generalize) “I can’t know what to expect.” This hopeless condition is known as despair. Are there ways to accelerate the formation of generalizations which can stave off this despair. Does acid do it? Will videotape? How? It will be perceived that these questions are special cases of the more general question: how to mediate discrepant frequencies — that is — what forms of software (generalization — culture) do we require in this temporal myriad we call home.

Surely, a beginning is the creation of a new planetary network of communications hardware and software, so those who now dance to vastly different drummers can come together in the first voluntary civilization ever to steer spaceship earth: evolution consciously deliberately joyously, freed of the fetters of national political (i.e. humanicidal — ecocidal) idiocies.

More important, I think, is the work heretofore left to mathematicians, physicists, philosophers, psychiatrists, and other intellectuals — that is — identifying the waves and frequencies of

which our experiences are the result, intuiting the laws which govern them, and designing better freer forms in which to live.

For example, a friend of mine set up his hardware so his five year old son could:

1. watch Sesame Street broadcast
2. watch himself watching Sesame Street on a second live monitor
3. make a tape of himself, watching his tape while watching himself on a live monitor watching himself on tape
4. tape himself with a 5 second delay loop on one monitor and try to mimic that so that the second monitor is in sync with the first
5. play with variable delay loops on both monitors (2 decks)
6. play with multiple variable delay loops and live monitors
7. vary recording and playback speeds while doing any/all of the above.

Not surprisingly, the boy began asking his father to help him do things that went beyond the design limits of the hardware. To explain why he couldn't, his father began drawing diagrams of multiple feedback loops with variable time loops, which the kid dug on the basis of his experience. Then the five year old started wondering how to design hardware so he could have the experience he wanted. He had found the limits of the temporal rhythms built into the hardware available to him, and imagined himself beyond them, i.e., temporal design. He wanted more software than there was in his world. I pass over the obvious corollary that he also immunized himself to the information pollution belching from commercial TV. What interests me about such experiments (which we occasionally do

at the Center) is the experimental immersion in complex time pools which are not only exciting but architecturally motivating.

A question which bothers everybody involves ecological recycling — there's an awful lot of good information around which we could share better if only those maverick data banks were set up. After all, it's chronetically silly to shoot tape at light speed, then air mail it to friends in London. And, since "they" own the satellites, all they have to do is charge prohibitive rentals so we can't move our information as fast as we shoot it. So Far. *They* are not gonna rent *us* time to create alternatives to them.

So, it seems to me, we are going to have to come up with software which is not only good for us but good for them, too. That's what global means.

We have no choice but to take them with us — i.e., turn them on to the benefits of our way. We're gonna have to go beyond the hip ethnocentrism we built to defend ourselves against them. We can't any longer enjoy being so "far out" that nothing happens. This could turn out to be a fatal underload.

The only choice we have, in my opinion, is to produce software which mediates their (slower) frequencies and our (faster) ones into those which harmonize both of us with the (much faster) vibes of a really global synchronous system. To put it crudely, we have to show the satellite-computer people (e.g., the "defense department") how our way is better for all of us; that a planetary form is better — for all of us — than cartels.

I guess my own naturalism is unmasked in the following optimistic statement — somehow the people always recognize a masterpiece, so, as entry into the next phase, that's what we have to do. Which is not, in the strict sense, a political, but rather a cultural-aesthetic task.

The dilemma — you can't have a revolution unless your head's together, but you can't get your head together unless you have a revolution — here arises. I'm suggesting that both tasks — solidarity and revolution — are facilitated by broadening the collective imagination with such questions as: What is that process of which industrialism, then automation, then cybernation are the acceleratively appearing moments? What are the unknown time rules such processes follow? Can we design other frequencies and forms?

I think so. But, as Fuller says — “This means things are going to move fast.”

METALOG

ON SOCIAL TIME (II)

PROLOGUE

The first draft of this chapter was written 5 years ago when I was an Instructor at Queens College, CUNY and Director of Research at Jewish Family Service. It remained unpublished in mimeo form since then because I wasn't sure it was not simply an elaborate hallucination. What faith I now have in the ideas put forward is largely due to the sensitive audience granted me by Philip Slater at Brandeis, and Henry Murray at Harvard, who first encouraged me to get on with it, and by the students and colleagues who since have patiently helped me to put my obsession with time into the somewhat legible form before you.

INTRODUCTION

Galileo's attempt to vindicate his conviction that light moved at a finite velocity took the form of an experiment in which one of two observers stationed about a mile apart agreed to signal when he saw the light emitted from his partner's lantern. If light possessed a finite velocity (measurable at the distance of one mile by two interested observers), his hypothesis would have received its vindication. But we know now that it moved too fast for him. Speculation and experiment have since revealed (Fizeau, Michelson-Morley)¹ what we now regard as a common-place, i.e., light travels in finite velocities, i.e., it "takes time." Most of us are now aware that Einstein's theories of relativity have something to do with a four-dimensional space-time continuum. But, shoemakers to our own lasts, not until recently did we perceive the relevance of these "physical" speculations to our daily concerns. So light takes time?

A moment's reflection reveals that the physicist's concern with the velocity of light is similar, if not homological, to the social

scientist's concern for words and gestures, because, just as light is information for the astronomer, so words and gestures are information for social beings.

But a striking difference between light and word emerges if we note that each photon delivers its information as it strikes a photoreceptor, whereas it is notoriously observable that people may pour out streams of words and gestures onto each other without communicating very well at all. Some of this difficulty is understood; we know about perspectives, frames of reference, points of view, codes, categories, metaphors, and a host of other intervening obstacles which alter the message as it is getting through. We know about transmission failures, and we know that reception may be garbled by malfunctions in the reception process. We tend to assume, in the absence of the above alterations, that the content of a given communication will have its intended consequence.

But, returning to the Galilean metaphor, what if there is nothing wrong either with the lantern or with the observers' visual acuity? It may still happen that communication fails. Perhaps, under such ideal circumstances, not the content but the *rate* of communication (e.g. the reaction-time of the observers) needs examination. It may be, and we shall attempt to convey, that even perfect (noiseless) contents often do not communicate because phenomena associated with the rates, speeds, accelerations, decelerations, and similar temporal parameters are involved.

Thus messages which arrive too fast to be recorded will be missed, much as Galileo's assistants failed to measure light's speed. Conversely, talk made too slowly will bore and precipitate ennui, much as a tape recording, played too slowly, will growl. That these conditions may obtain in those quadrants of the universe of social behavior customarily studied by the social scientist is the hypothesis of this chapter.

ALIENATION, ANOMIE, ANXIETY

We shall elsewhere observe that Marx's alienation, Durkheim's

anomie, and Freud's anxiety have, in addition to their alliterative resemblance, a more central similarity which derives from the concern these men shared for the pathologies of urban man. When Marx described the "alienation" the worker suffers because the injustices of feudal serfdom have been replaced by newer modes of production and distribution, he rejoices that a liberation has taken place, but he is saddened (and angered) because the former peasant now has no choice but to sell his time, i.e., his labor per hour. Tyranny has been removed only to be supplanted by a new form of subjugation. To this point hath the dialectic come, as Hegel observed in other circumstances.²

Durkheim's fundamental explorations of anomie also implicitly participated in a temporalist orientation, for he focused, especially in *Suicide*,³ on those situations in which a *former* division of labor and its concomitant set of norms, values, and roles, were made suddenly obsolete by a *subsequent* division of labor, with its new set of norms, values, and roles. He was of course far from insightful into the obverse situation, the *disintegration* of a coherent social harmony into a *prior* condition of organization, resulting in an inappropriately complex norm system straddling the disorganized situation.

While it seems not uncertain that Freud was aware of the writings of Marx and Durkheim, it is almost banal to point out, in our era, that Freud's theory of anxiety was very much an expression of his own particular genius. This is especially evident in what many regard as the best of his sociological works, namely, *Civilization and its Discontents*.⁴ This ground breaking work in psychoanalytic sociology may be heuristically summarized as follows. When the division of labor in a society increases and complexifies, the number of norms and values increases concomitantly. But, when this larger number of norms and values is introjected, becoming ingredient in the personality, spontaneity is decreased, because, increasingly, the forms and patterns of gratification available to the organism are subject to increasingly complex social definition. As Marcuse⁵ has aptly demonstrated, it is a situation in which increasing sublimation

calls for increasing repression. Or, to put the matter more prosaically, it seems to have been Freud's view that complex civilization creates a complex superego, which then accumulates controlling dominion over the organism's pleasure seeking. The thesis that our civilization prevents us from enjoying our congenital polymorphous perversity is rather univocally endorsed by Norman Brown⁶ as the cultural plight of contemporary western man.

Thus it is not very far from the thesis of *Civilization and its Discontents* to the following proposition: *In a given social system, as the number of normatively defined interactions increases, the number of spontaneously defined interactions decreases.*

The generality of this proposition calls for several clarifying amendments, since it is almost too obvious that the theoretical import of the Freudian statement is not far removed from the theoretical import of Durkheim's classical formulation. In both, complexity finds its criterion in a simple enumeration of norms. Somewhat more subtly, we point now to the theoretical intimacy of this hypothesis with certain aspects of Marxian Sociology, in which the increasingly laborious definition of the worker's role brings about his increasingly alienated situation.

At the heart of these formulations, we believe, is a temporal assumption, which we may tease out by exploring the notion of spontaneity. Certainly, we must avoid imputing to these theorists a wish to avoid any and all socialization processes and to leave as unimpinged as possible the noble savage, natural man.⁷ Each would agree that a human isolate is inhuman, and that a man alone is no man at all. Yet each found a certain measure of inexorable necessity in the very "state" of affairs he deplored.

If we do not inquire into this inexorability, we shall be left with nothing more than theories of pathogenesis. If however we can make some reasonable formulation of the "native" possibilities of man, that sort of humanity he has *prior* to alienation, anomie, and anxiety, then perhaps we shall be able to state at least some of the

prolegomena to a sociological theory of human joy, as well as the conditions under which human life is subjected to pathology.

If it is impossible to make any headway here, then we shall have to resign ourselves to a perennial entrapment between alienation and freedom, mechanical and organic solidarity, thanatotic and erotic life, or, more generally, to an impotence when confronting the desire to transform the social basis of Life and Death. Faith in an inevitable "progress" now seems worn thin.

The approach, we suggest, is to be found in the characteristics of our own age upon which so many writers, from Marx to Merton, have commented. I refer to the twin conceptions of social process and social change, and, to paraphrase Whitehead,⁸ to the fact that we have witnessed more rapid change in the twentieth century than in the twenty centuries before it.

SOCIAL PROCESS AND SOCIAL CHANGE⁹

Two root metaphors seem to be employed with especial frequency in the social scientists' conceptualization of social process and social change; the part-whole metaphor, and the space-time metaphor. Relating these to each other we may derive the following four-celled paradigm:

| | | |
|-------|---------------|----------------|
| | space | time |
| part | I particle | III instant |
| whole | II gestalt | IV process |

In cell I, we locate the particle point of view, in which things, events, processes or changes are construed as the resultant configuration of a number of individual particles. Thus a molecule is a number

of atoms, a galaxy a (very large) number of stars and planets, a group a "composition" of individuals. Processes and changes are ascribed to the addition or subtraction of parts. Many gas particles will set up a gravitational field, eventually forming a galaxy; many individuals will enter into patterned interactions, eventually forming a group. For example, population pressure (the increase in number of individuals) has not infrequently been allotted the engine role in social processes and social changes.

Critics who castigate this sort of conceptualization in the social sciences as "methodological individualism," argue that the derivation of social relations from the units of behavior is reductionist, atomistic, and primitive. Proponents assert that their thoughts are modeled on reality and are therefore genuinely descriptive of the situations which capture their interests.

In cell II, we locate the gestalt point of view, in which things, events, processes and changes are construed as self-defined wholes. A molecule may be intellectually analyzed or "broken" into its component atoms, just as a group may be analytically separated into its component individuals. But gestaltists insist that a molecule is a molecule, and a group is a group, *prior* to our analytic operations. They say that galaxies whirl and eddy, groups migrate or form communities, *as wholes*. Methodological individualists criticize this view as sociologistic, and, occasionally, psychologists view thinking of this sort on the part of their sociological colleagues as peculiarly unspecific. Proponents argue that anything less than gestaltic thinking distorts the reality of groups, commits the fallacy of misplaced concreteness,¹⁰ and is ultimately reductionist. A group is a group; its processes and changes are *sui generis*.

In cell III we confront the instant point of view. Clock-time, for instance, is said to consist in the sum total of units measured. Thus an hour is "really" 60 minutes, a year 365 days, etc. For particalists, analysis of change or process consists in measuring the number of instants and charting what happens *at* each instant. The sympathy between the particle view and the instant view becomes apparent

here, since *at* is a spatial referent. But *where* is an instant? Nevertheless, sympathy is not identity, so that protagonists of the instant persuasion may, with equal justice, chide the particle advocate by asking "when is a particle?" The relativity enthusiast confronts an instantist critique of the familiar $E=mc^2$ equation when it is noted that a particle "at" the velocity of light would have to achieve infinite mass. Similarly the analyst of social change who advocates an historical perspective is asked to note in his analysis of change what the state of affairs was when he observed the problem system.

In cell IV, we meet the proponent of the process point of view. He is the most adamant critic of reductionism, whether of type I, II, or III. He holds that the whole time of events, physical and/or social, must be perceived in its entirety. He holds, with Heidegger,¹¹ that time is to man what water is to the fish, so that, if we abstract man from his element, we court the danger of asphyxiating our analysis. Like light, he reminds us, life takes time. If we make non-temporal analysis, we will speak in artificialities. Just as we cannot hope to understand (*verstehen*) the drama if we merely conceive (*begreifen*) of the separate scenes, so we must perceive man in his actual enduring social process. Snapshots provide lifeless models for so chronic a reality as man.

Critics of the processualist are quick to object that processes actually consist of 1) particles, 2) gestalts, or 3) instants. To these the processualist may respond with a superior grin. But he meets a more constructive critic in the social scientist who says: "Well and good. Whole processes are whole processes. But how shall we understand them? Where do we mark off beginnings, middles, and ends? How do we know how long a given process lasts, where one leaves off and another begins? If you require that we reconceptualize what we have heretofore regarded as events composed of parts, what concepts shall we employ?"

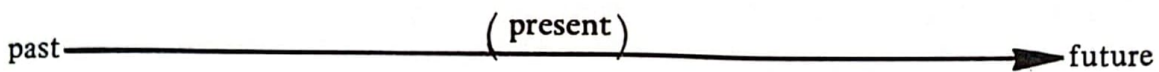
These, in our view, are sage inquiries. We shall not affront our critic by calling him a reactionary who demands a crystal ball as the

price of progress. How indeed shall we think processually? How shall we measure change? Before presenting our views on these matters, let us describe more explicitly one characteristic of the four-fold paradigm presented above; it is cumulative. This we have attempted to convey in our sequential enumeration. The simplest, and, we believe, least helpful perspective for the social scientist's analysis of process is the particle view, depicted in cell I. Passing over the degree of probability that we shall someday so integrate "Science" so that we will have a continuum of perspectives ranging from Physics to Anthropology, and from Geology to History, we hold that present day social science has little to gain from an atomistic point of view because it introduces far more complexity and sheer number than we can presently handle. A similar remark applies to cells II and III (the gestalt and the instant, respectively.) For no one is really interested in charting, let us say, the history of American Culture, *second* by *second*. And why stop there? The cesium clock given to us by Professor Mossbauer will complicate seconds into billions of units per second.^{1 2} One could carry the argument further by resort to logical devices (borrowed from Zeno, *et al.*).

It is the wiser course to proceed empirically. We must investigate, by employment of tools now available, how, in fact, the processes relevant to human actions have been understood by their various participants and investigators.

We shall find, if I am not seriously in error, that the traditional western conceptualization of time is a linear depiction, involving past — present — future terminologies, and such variants as beginning, now, and eventually; birth, life, death; thesis, antithesis, synthesis; origin, process, recapitulation, and others.^{1 3} In these schemes, investigations of social processes are assumed to be intelligible when referred to a linear metaphor, such that marking off units of time of varying "lengths" are held to be meaningful. Thus we say "a short time," "a long time," in a myriad of ways, whether we call them seconds, days, months, years, light-years, or eons. It will

be perceived that these are reductionist since they employ a spatial model. In assuming that time is two-dimensional (i.e. linear), we make it impossible for phrases like "a hard time," "an easy time," "a high time," and/or "a low time" to make any but euphemistic sense. Thus:



Let us agree, since it exists, that this linearization of time is one possible conceptualization. But let us not assume that this two-dimensional view is the *only* possible conceptualization of social process. What if time may be viewed as 3 dimensional, or 4, or by extension, n-dimensional, as the mathematicians say. In other words, instead of charting experience on what we gratuitously assume to be a two-dimensional graph, let us inquire how time is experienced in various social situations. In this way, we can avoid forcing the views of time that other cultures have made into our pre-conceived framework, borrowed from an ethnocentric and outmoded physics. (For example, the traditional Chinese view of time would not "fit" our western paradigms at all.)¹⁴ In addition, by seeking a more general view, we may regard such concepts as alienation, anomie, and anxiety, which were plotted on a before and after linear model, as genuine, but amenable to supplement.

By focusing on socially experienced time, we derive further benefit by not assuming, as Newtonian physics was wont to assume, that time is an absolute, a constant, proceeding at some unknowable rate. If it "takes" linear time to measure linear time, we shall remain caught in a self-contradictory scientific agnosticism, unless we choose another path. Such a path, we hold, comes into view when we focus

on socially experienced time. We may *then*, if we choose, investigate how the assumption of two-dimensional physical time captured such a prominent place in the halls of social speculation.

Experienced time is notoriously variable. Sometimes events seem to last forever, so that we become impatient for change. A boring play comes to mind as an example. "At" other times, events seem to rush by at such great speed, that we wonder if we shall ever "catch up" (e.g., the information explosion). Sometimes events are so deliciously pleasant that we hardly notice the passage of time at all (e.g. — sexual ecstasy). Sometimes we hurry, sometimes we dawdle. Sometimes events are so fraught with meaning that we are weighed down by them — we feel heavy, laden. These banal illustrations serve to focus for us the variability of experienced time, and the intellectual provincialism of charting such experiences two-dimensionally.

Although we know that travelling at a constant velocity produces no sensation of motion, we also know that alterations in speed (acceleration, deceleration) are readily detectable. The adventures of the astronauts have taught us that a measure of increase in relative mass *due to acceleration* is called "G," and the reciprocal measure of decrease due to deceleration is known as "negative G." We even know that there are upper "G" limits for humans, and that some people can tolerate more "G" than others.

The social homologues of these phenomena, in our view, lie behind the intuitions of alienation, anomie, and anxiety. Thus, when the worker's time is measured by a production schedule over which he has no control, he is alienated from his "natural" time. When the norms no longer or too suddenly define "normality", anomie appears. When timeless fantasies urge gratifications more immediately than the ego can mediate, fixation, regression, or "free-floating" anxiety may result. But these are lamentations concerned only with "too slow" or "too fast," that is, they employ linear time models. Are there others?

ACHRONY, SYNCHRONY, AND SOCIAL PROCESS

Since a large number of approaches is open to us,¹⁵ we must attempt brevity. Hypothesizing that social processes occur at various rates, we shall first describe how people *feel* when caught in circumstances of varying rates of behavior. We will then examine some homological group phenomena, beginning with the familiar linear model but varying rates "along it." We may then inquire about acceleration and deceleration along the familiar "arrow of time" (customarily drawn as a vector, perhaps because time is irreversible, or perhaps only because we believe it is). We shall then look into other dimensions of time.

Thus, in life cycle terms, birth is beginning, although we know that the infant does not perceive time as "directional." Similarly, death is an ending (although some hold it to be merely transitional). Freud has taught us much about birth, death, and about fixation and regression, linear temporal metaphors which suggest that the organism may "go on" while the psyche "gets stuck" or retrogresses. He said little about those who race, whose feeling when the pace of events exceeds their own is a compulsion to hurry. Sociologically, a two-dimensional linear model has also been used to describe the visionary, the chiliastic sect, the millennialist persuasion, and other futurist orientations,¹⁶ their opposite numbers being described as conservatives, reactionaries, *contre-temps*, or, in Thomas Mann's phase, "children with their heads on backward."¹⁷ Those who have been "left behind," those who "lag," "losers," and a host of others also receive their baptism here.

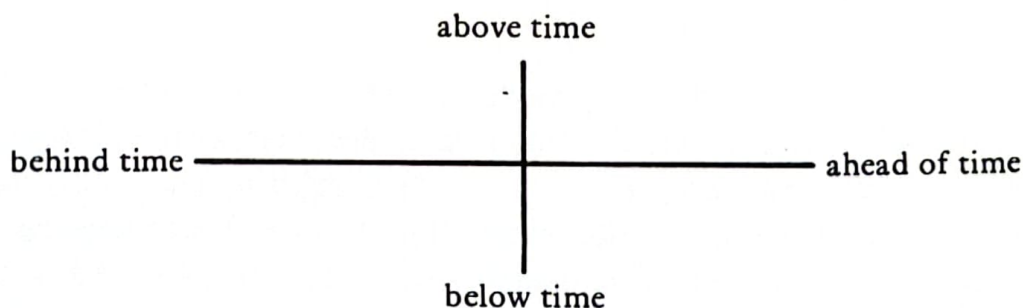
Since all men are born, pass through the age-statuses recognized by their cultures, and die, we may say that relating to the processes of social time is a cross-cultural necessity, and that every culture organizes these passages of time in some way. But, lest we restrict ourselves to the linearity we criticized above, let us recall our question whether other temporal modes of experience are possible.

Thus, medieval thinkers were accustomed to turn their eyes "upward" to heaven and "downward" to hell, two forms of

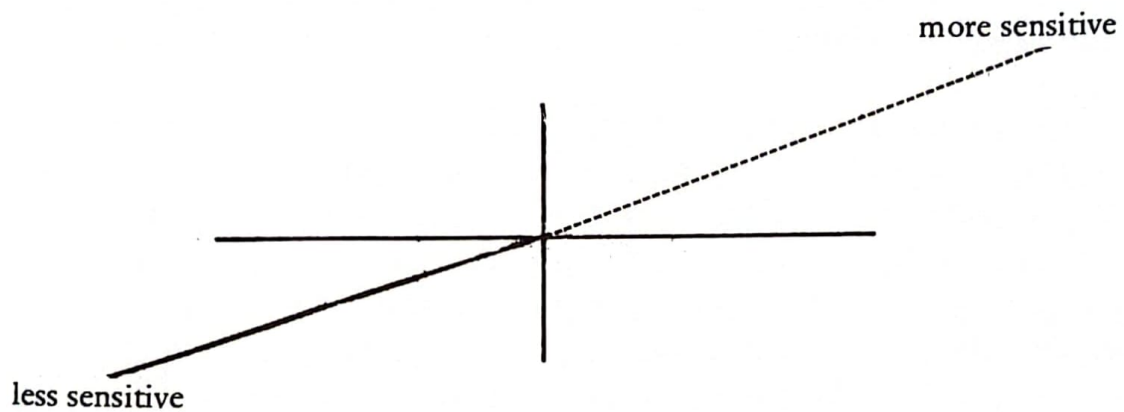
eternity,¹⁸ the one blissful, the other horrendous. Law was said to emanate from “on high,” and an institutionally prescribed ascetic regimen was believed to liberate men from the coarse materiality of terrestrial cares and to merit peaceful salvations “above” and “beyond” the sorrows of earth and its vale of tears. In our own age, we hear these eternalist intonations in the “high” of the narcotic user or in the pronouncements of the totalitarian state, which, claiming to have fathomed the laws of history, and thus being “above” them, arrogates the power and the right to direct the “destinies” of lesser mortals. Indeed, the association of immortality with upward directionality was as familiar to the Greeks as to our Calvinist forebears. Both located gods “on high.”

Conversely, the insulted, the damned, the enslaved, and the oppressed all ask to have their burdens lifted from them. The yoke of tyranny is described as heavy. Those whose lives consist of endless repetitions (cycles, rituals), whose hope of a better future has been foreshortened, whose “downtrodden” plights seem without remedy, are customarily described as suffering in the “depths” of despair. We call the poor the “lower” class. Satan inhabits the “underworld.”

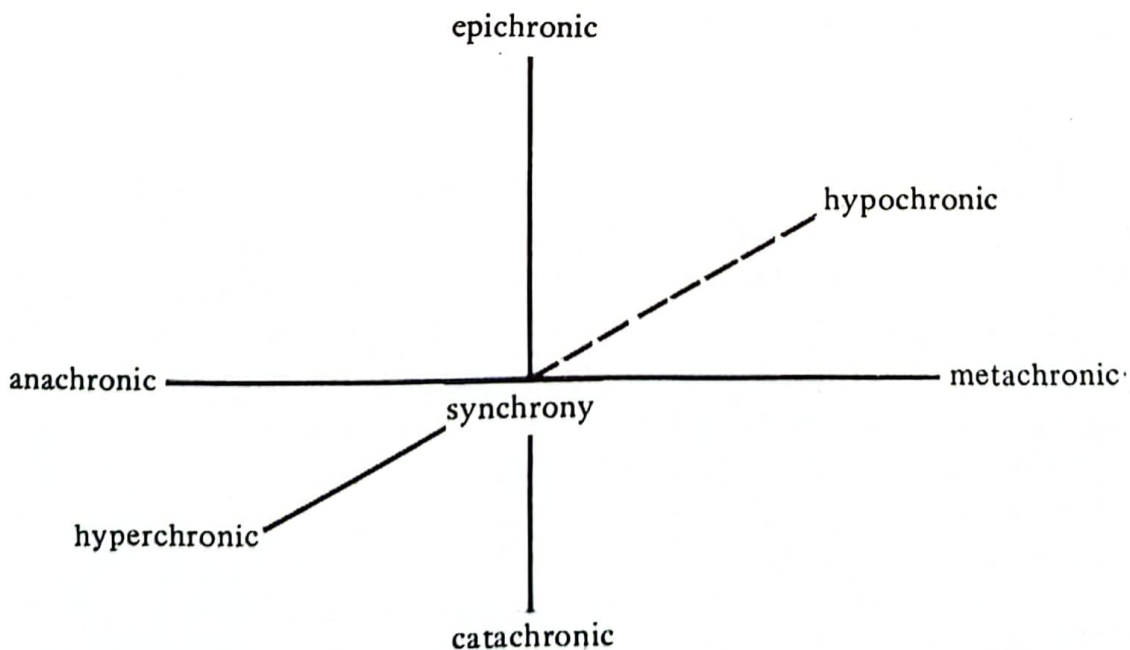
How to account for the genesis of these vertical metaphors? Let us first relate them to the horizontal vector of time described above. We arrive at a depiction which may be drawn like this:



If we add one more dimension, designed to capture a continuum of sensitivity to time, such that we may chart those who are either sensitive to the feel of “time’s flow,” or those who are fairly dull with respect to it (and those in between), such that they complain of its heaviness or exalt its lightness, we arrive at something like this (imagine it to be 3 dimensional):



Adding Greek terms to the paradigm, referring to the root “chronos” for time, we derive the following lexicon:



We are now ready to describe more fully what each of these terms are designed to convey.

Perhaps the most convenient beginning will be made if we note that there are two perfectly respectable English words corresponding to two of our categories, i.e., synchronize, and anachronism. By anachronism we usually understand someone or something which "time has left behind."

If we inquire now, as Murray and Erikson do,¹⁹ whether there resides in each of us a sense of our *rate* of experience, it follows that we may also sense variations in this rate. If for example, we say that someone is falling behind in his work, we are referring to an anachronistic rate of attainment. Such a statement is possible only on the assumption that there is a rate of attainment which would "keep up with" the rate of expectation. Although this is customarily referred to as "normalcy," we prefer, for reasons which we hope will soon become apparent, to designate that situation in which the rate of attainment is in harmony with the rate of expectation by the word "synchrony." In the language of the hipster, he who is synchronic is "with it." When "the time is out of joint,"²⁰ we observe achrony.²¹ Referring to the diagram above, synchrony is the sphere whose diameters are equal. Achrony may be depicted as a misshapen or asymmetric sphere.

How many forms of achrony are there? Although it seems at first sight to be unusual, it is equally possible for someone to be "ahead" of his expectations — to go faster than a "normal" rate of process. The precocious child, the avant-garde painter, the bohemian who feels the entire planet to be populated by reactionaries and squares, are instances of what we call the metachronic orientation. So is the person who must race headlong, all the time; he constantly feels he must go faster than he can, as if "time were running out." He may do this because he wants to decelerate his "falling behind" (to prevent becoming an anachronism) by adopting a faster rate, which, unfortunately, he then feels is too fast for comfort (a metachron-

ism). "Sometimes it takes all the running one can do just to stay in one place," as Alice remarked in Wonderland. The rabbit who was always rushing because he was late, late, late, also describes a typically metachronic orientation.

Sociologically we may observe a metachronic process when, for example, a goal is achieved before the participants are ready for it. Sudden attainment of a position of increased responsibility qualifies as a model frequently encountered *in vivo* by revolutionaries who rise to find that the ship of state steers heavily now that they have suddenly assumed the helm. Similarly, our interpretation of the "delinquency" literature leads us to view as anachronistic the period between biological and sociological pubescence. Were it not for the fact that "legitimate" property and sex "rights" are conferred on young people long after they are biologically ready to have them, we would have no time known as "adolescence." The time lag between biological and sociological maturity which seems to accompany every urbanization of a formerly agrarian culture is thus, in our view, an anachronizing process for the young.^{2 2}

Another illustration is to be found in the predicament of the technologically unemployed. We confront here a strange situation in which millions of workers whose old skills are anachronisms can find no work in an economic system which complains of a shortage of metachronic technicians with new skills. This condition is as neatly paradigmatic of wholesale achrony as we can imagine. The "economy" which metachronically creates new roles faster than it can fill them serves also to illustrate the reciprocity between rushing and lagging rates of social process.

While it would be possible to show that anachronizations may occur anywhere along the continuum of the processes of individual development which Erikson calls the life cycle, systematic elaboration of the group process equivalent of these ideas must wait upon a more elaborate formulation which will make it possible to study the paces involved in group phases of development in their sequence and continuity.^{2 3}

The anachronic and metachronic orientations are, then, characteristic ways of experiencing dyssynchronous rates of experience. They may be used as reciprocal terms, since they are relational concepts. Thus, someone who feels he is behind may rush, and someone who is rushing may feel himself slowing down. Conversely, someone who feels behind may experience relief by speeding up a bit, and someone who feels himself hurtling may feel relief by relaxing a bit. Somewhere between these extremes, people sometimes feel that their rates are comfortable, that they are "doing alright," "making it," "groovin'."²⁴ This horizontal aspect of the paradigm is familiar enough, capturing the linear model to which we have been accustomed. Our terms are the simplest we can devise to focus on rate variations.

The epichronic situation and its reciprocate, the catachronic, refer to feelings of being "above" or "below" a given social process. Although we often say that distance may be comfortable (in the face of danger) or uncomfortable (when "far" from a desirable outcome), we sometimes say that "rising above" a painful situation will alleviate its stressful implications. Thus the "buzzing blooming confusions" of too complicated a set of roles may take on meaning when seen from (high) above. Although we know that details are often lost in this stance and that pattern is achieved only at the cost of variety and richness, we argue that when pattern is sought, detail must be sacrificed. That will be the view of the epichronic person who tries to rise politically above the bewildering chaos of memberships too complicated for his comfort. He may pronounce that nothing really changes, that all action is illusion, or that cycle and repetition are the co-monarchs of true reality. He may even deny that time is real at all, by erecting unchanging, inflexible dogmas which are true "for all time" over which he now feels the master. Parmenides comes to mind, or the early Plato of the "eternal" forms. Mercea Eliade's works are especially valuable in this context. Mysticism (of one kind) serves as another illustration of the epichronic attempt to alleviate the slings and arrows of outrageous process by climbing into a timeless realm where eternal order reigns. Paranoia (of one kind) serves as another.

Socially, we observe the epichronic stance in the application of power to what the powerful regard as a threatening situation. Martial law is its most obvious incarnation, the denial of civil liberties a less obvious but perhaps more insidious replication. The "majority" which imposes its will on "minorities" is a familiar case in point, as is Marx's analysis of the refusal of the capitalists to distribute the rewards of a new mode of production as rapidly as they accumulate. Injustices have never been difficult to catalogue; instances of power, the reciprocate of oppression, are no more difficult to compile. Recondite analysis of power, however, is another question.²⁵ We focus here on that frequently noted situation in which those who oppress are angrily envied by those they oppress, a phenomenon which Anna Freud has named "identification with the aggressor." It is not entirely dissimilar to Hegels' analysis of the master-slave antinomy. Others have pointed out that relationships of this sort may also be in evidence in intergenerational conflicts.²⁶

The catachronic is not so fortunate. He feels that the process of events which constitute his situation are too heavy to be altered by his poor strengths. He is depressed. He feels that "time hangs heavy on his hands," that life is unjust and unfair. Regulations and edicts, whether official or informal, weigh him down. He is a creature of the depths, insulted, injured, damned. The decisions which effect events are made by those "above" him, but the climb up to that level is too arduous for him. He may despair, sinking lower and lower, possibly into suicide. A milder catachronic will sing "low down" blues.

Just as we see a reciprocity between the anachronic and the metachronic, who seem sometimes to shuttle back and forth along their continuum, so we may observe a reciprocity between the epichronic and the catachronic. Frequently, one who feels himself to be living catachronically will seek release from his depthful prison. Narcotics will turn off feelings of catachryony and transport the user almost magically into an epichronic realm where time moves so slowly (if at all) that the feeling of being "down under" is almost instantly replaced by a feeling of "being high."²⁷ Alternatively, the

catachronic may sink into a self-defeating hedonism where every impulse is given free reign. Durkheim's egoistic suicide is homological — his altruist resembles our epichronist in that he may feel the ultimate values to be more valuable than his own life, justifying his martyrdom. Joan of Arc comes to mind. For the epichronic, time should move very slowly if at all. For the catachronic, it moves too slowly, if at all. The former wants order, the latter escape.

Durkheim's "fatalistic" suicide is similarly homological to the "fatalism" of the catachronic orientation. Thus, when we asked Oscar Lewis why it seemed to him that the bearers of "culture of poverty" always seemed hopeless and resigned, without viable plans of action, he replied that it was because they knew "damn well there was little *they* could do" about the inequitable allocation of the world's good things.²⁸ Similarly, the low castes, wherever and whenever observed, have traditionally been described as people who do not regard time as benevolent. Among the untouchables of India, time is a "tooth" which tears away at the flesh of life. Albert Cohen²⁹ described the lower class time orientation of the delinquent as immediate and hedonistic, in contrast to the middle class boy who learns to postpone present gratifications, in the *hope* of more and better gratifications "in the future."

We turn now to our third axis, the continuum of sensitivity. Here we enter uncharted regions, involving such unknowns as temporal thresholds, rate tolerances, affective sensibilities and insensibilities. Why are some of us more sensitive to time's passage than others? Why do some of us feel speed to be exhilarating while others abhor it. Some drive a car at a steady pace, comfortably within the speed limit for hours on end, while others enjoy speeding; the temporally timid and the rate rebel, as it were. Why?

Although these are presently imponderables, we include them for several reasons: 1. we recognize these phenomena repeatedly albeit crudely, 2. we have devised an experimental technique for their investigation, 3. they tantalize our theoretical appetite.

Certain questions which we cannot at present even ask intelligently (ramifications of point 3 above) motivate us to attempt the construction of a bridge from feelings about rate-of-behavior phenomena to the sociological circumstances which generate them. For example, imagine an era in which the pace of social change is said to be great (i.e., our own). Imagine further, two populations, one of hyperchronics (i.e., people very sensitive to change) and one of hypochronics (i.e., people not particularly bothered by the rapidity of events). Will the hyperchronics become more catachronic sooner? Will the hypochronics "adjust" more easily, becoming willing compulsives in the "rat race" for success? We do not at the present know the answers to these questions, nor even whether these are intelligent questions.

Nevertheless, before passing on to the attempts we are making to investigate these phenomena experimentally, three further aspects of the achrony-synchrony paradigm require elaboration. The first is the relation of achrony and synchrony to the general issue of affect and emotionality; the second is the relation of our paradigm to the general issue of dialectical thought; the third is the extent to which the paradigm described above rests on an assumption of uniform acceleration and/or deceleration. That is, we have discussed so far only those aspects of temporal behavior which either increase or decrease *at a constant rate* of increase or decrease. Before we enter into a discussion of such temporal phenomena as experience which is taking place at a decreasing rate of increase; or conversely, at an increasing rate of decrease (and other such phenomena), let us consider the question of dialectical time.

ON DIALECTICAL TIME³⁰

A. *Thesis:*

Freud wrote:

There is nothing in the id that corresponds to the idea of time; there is no recognition of the passage of time, and — a thing

that is most remarkable and awaits consideration in philosophical thought – no alteration in its mental processes produced by the passage of time. Wishful impulses which have never passed beyond the id, but impressions too, which have been sunk into the id by repression, are virtually immortal; after the passage of decades they behave as if they had just occurred. They can only be recognized as belonging to the past, can only lose their importance and be deprived of their cathexis of energy, when they have been made conscious by the work of analysis, and it is on this that the therapeutic effect of analytic treatment rests to no small extent.

Again and again, I have had the impression that we have made too little theoretical use of the fact, established beyond doubt, of the unalterability by time of the repressed. This seems to offer an approach to the most profound discoveries. Nor have I myself made any progress here.³¹

Marcuse accepted the gauntlet thrown down by Freud in the foregoing passage, but it was his genius to perceive that the couch was not and could not be an adequate instrument to deal with what he called “surplus repression:” that is, the extent to which cultures engender far more repression by political oppression than the amount he felt to be minimally necessary. Attempting to forge a synthesis between a Marxian analysis of society and a Freudian analysis of civilization, Marcuse addressed himself to the issue of time in the last five pages of his *Eros and Civilization*.³² There he writes that:

... Death is the final negativity of time, but ‘joy wants eternity.’ Timelessness is the ideal of pleasure. Time has no power over the id, the original domain of the pleasure principle. But the ego, through which alone pleasure becomes real, is in its entirety subject to time. The mere anticipation of the inevitable end, present in every instant, introduces a repressive element into all libidinal

relations and renders pleasure itself painful. This primary frustration in the instinctual structure of man becomes the inexhaustible source of all other frustrations — and of their social effectiveness. Man learns that ‘it cannot last anyway,’ that every pleasure is short, that for all finite things the hour of their birth is the hour of their death — that it couldn’t be otherwise. He is resigned before society forces him to practice resignation methodically. The flux of time is society’s most natural ally in maintaining law and order, conformity, and the institutions that relegate freedom to a perpetual utopia; the flux of time helps men to forget what was and what can be: it makes them oblivious to the better past and the better future.

This ability to forget — itself the result of a long and terrible education by experience — is an indispensable requirement of mental and physical hygiene without which civilized life would be unbearable; but it is also the mental faculty which sustains submissiveness and renunciation. To forget is also to forgive what should not be forgiven if justice and freedom are to prevail. Such forgiveness reproduces the conditions which reproduce injustice and enslavement: to forget past suffering is to forgive the forces that caused it — without defeating these forces. The wounds that heal in time are also the wounds that contain the poison. Against this surrender to time, the restoration of remembrance to its rights, as a vehicle of liberation, is one of the noblest tasks of thought.

This magnificent passage nonetheless leaves us with a question: “*How shall we re-member?*” (the pun is deliberate).

Freud and Marcuse are united in giving central importance to the notion of time in the task of liberation. To Freud’s relatively bourgeois program, Marcuse, a “left Freudian,” adds the social-political dimension. But Freud and Marcuse are also united more in

depicting the plight of the repressed, than in the definition of political prescriptions. They whet our appetite for exploration.

Insofar as he is inspired and provoked by Marx, we may say that Marcuse is not only a left Freudian, but also a "left Hegelian." But even the "right Hegelians" (e.g., Kierkegaard and many of the existentialists) did not fail to see that insight into temporal process was central to their concerns as well. Heidegger's *Sein und Zeit*³³ is illustrative. It falls short in my view, because, though it stresses that time lies at the root of all consciousness, it construes time in a hopelessly naive linearism, and restricts its attention unnecessarily to what I shall later characterize as "mere becoming," thus effectively precluding attention to the possibilities of what I shall call "transcendent becoming," i.e., liberation.

The intimate connection between anguish, the existentialist notion of pathos, and linear temporality, is not merely intimate but necessary, because anguish results whenever temporal experience is politically linearized. That is, whenever a society insists that the only viable choice is a millennialist utopia or a contemporary "ek-stasis," it does so by oppressively constricting temporal experience to one dimension. Indeed, Marcuse's *One Dimensional Man*³⁴ reveals the poverty of this thesis.

The situation is no better when we turn to a group I will call the middle Hegelians, i.e., the advocates, disciples, and students of Husserl's phenomenology (among the principal figures here I would include Albert Schutz, Maurice Natanson, and others).³⁵ Phenomenologists of this sort³⁶ accomplish a valuable inventory of the contents and processes of consciousness, but in so doing, it seems to me, they begin with the temporally fragmented structure of consciousness when it would be preferable to account for it, both genetically and epidemiologically, tasks which too often fall outside of their charted domains.

Nor may we expect promising fulfillment from the "genetic epistemologists," among whom we must of course name Piaget as the

most talented investigator. Piaget's work on the genesis of the concept of time³⁷ demonstrates, with the pungent clarity we have come to expect from him, that the notion of time, contrary to Bergson and the phenomenologists, is not "an immediate datum of consciousness;"³⁸ that, for his youthful subjects, there are in fact four distinct steps through which contemporary western children go at various ages before they arrive at the notion of time with which the phenomenologists begin. Piaget's subjects distinguished: (1) events of arrival; (2) events both of arrival and of departure; (3) distance traversed by moving figures; and (4) measure of the distance between moving figures. Piaget is able to conclude from these and similar experiments by his colleague Paul Fraisse³⁹ that the notions of temporal succession, temporal order, temporal duration, and temporal velocity are initially distinct and *subsequently* miscible notions.

Nor have clinical enquiries into the pathology of the "time sense" been lacking. The Dutch psychiatrist, Meerloo, has summarized this literature⁴⁰ for us. His review catalogues the extent to which the allegedly normal time sense in western subjects may disintegrate into weird mixtures of the elements described by Piaget and into other strange temporal compositions. However, neither Meerloo nor Piaget examine or take into account the extent to which the pathologies of the time sense derive from *political oppression* and/or "psychological" *repression*. Indeed, this failing is as often encountered among the phenomenologists, as among experimental and clinical investigators.⁴¹

No such defect characterizes the recent work of Jean-Paul Sartre, whose preface to his *Critique de la Raison Dialectique* has appeared as "Search for a Method."⁴² I will not summarize this well-known work since a curt summary could not do justice to its bold and promising character. Suffice it here to say that in it, Sartre attempts to unite and synthesize, and then to go beyond the dialectical heritage of Hegel and Marx, the phenomenological heritage of Heidegger and Husserl, the psychoanalytic heritage of Freud and the new Freudians, and even to carry forward his own

“existential manifesto.” He does so by giving centrality to the notion of “*project*,” which goes beyond the Hegelian notion of *process* in that it is a call to action, and not merely a call to vision. He accepts, it seems to me, Marx’s critique of the Hegelians that the task of philosophy is not to understand the world, but to transform it. He insists that no middling compromise can be reached between the determinations which social forms impose on consciousness, and the character of freedom which his existentialism proudly defends.

I have passed in review the thoughts of the foregoing men to underscore the fact that these leading theoreticians to whom we look for guiding vision, without exception, have focused their principal energies on the notion of temporal experience, and yet none has produced a major tract on the subject. In the paragraphs that follow, I suggest some considerations which seem requisite for a beginning — notes, as it were, toward a new epistemology of experienced process.

B. Antithesis:

Freud, Marcuse, Heidegger, and Sartre, not to mention Hegel and Marx, did not fail to allude to “the divine Plato,” as Freud calls him. They were not unfamiliar with Plato’s epistemology which, unfortunately, is far too often accepted as sufficiently well-expressed in the famous allegory of the cave. Sartre somewhere (I think in “Anti-Semite and Jew”) tells the charming tale of a young French student, rushing excitedly to his Professeur, asking eagerly, “Professeur, Professeur, have you read Monsieur Freud?” whereupon the old man peers above his spectacles and gently informs the budding metaphysician (approximately): “My son — the better part of Freud you will find *chez Platon*.”

And yet, those who go to Plato’s *Republic* for the final statement of his epistemology will commit a grievous error in scholarship by failing to study a work which Plato wrote nearly forty years after he wrote the *Republic*, i.e., his *Timaios*. Elsewhere, I have shown⁴³ that the epistemology of *The Republic* was replaced by the sociology of the *Timaios*, in which the pun on re-mem-bering, to

which we alluded previously, receives Plato's customarily magnificent allegorical depiction.

Plato is at great pains in this work to distinguish mere becoming — the incessant repetition of what went before — from another sort of becoming, in which time serves not merely as the line on which repetition is plotted, but as the mediation by which both memory and society have their being, such that time transforms Ideas into realities, which thus *become members* of the real forms of being. Analogously, time transforms memories into vital social membership. In more classical language, it is *Logos* that transforms *Ananke* into *Eros*. (We will not here discuss the mutilation this allegory suffered at the hands of Christian theologians.)

Nor can I emphasize strongly enough the complete error of those interpretations of Plato which impute to him the view that the temporal world here below is merely a copy of the eternal, changeless realm above. This view is expressed in *The Republic*, but is abandoned and replaced in the *Timaios* by the view that time transforms mere succession into genuine growth and creativity; in other words, that time is the negation of mere becoming.

What does this mean? It means, in brutal summary, that if we do nothing to change them, things will go on as before; that there is an inertial death (*Ananke*) in the affairs of men which conspires to *keep* things as before; and that mere succession holds no promise of change (*Logos*). And, yet, where we would expect Plato to write that bold imagination paints a future whose compelling beauty pulls us forward into transformative action, we find, on the contrary, that in the *Timaios* Plato finds the motive for action *not* in a naive futurism, but in the vital re-remembrance of the past. This is not the reactionary nostalgia so many of his positivist commentators have imputed to him,⁴⁴ because those who remember (re-member) that time and time again, the change whose consummation they devoutly wished did not come about, dooming them to the sterile repetition again and again of forms of behavior which led nowhere, will not be emboldened by the forecast of *another* repetition. As long as the time of memory is construed as a linear time, events which succeed prior events cannot

be novel; cannot be new; cannot hold the promise of genuine change. It is only when men *refuse to repeat* what they remember all too bitterly has already occurred, that they "rise above" the one-dimensionality of linear time.

We may illustrate the foregoing with a geometric metaphor, more congenial perhaps to Pythagoras than to Plato. Imagine, if you will, a pencil, moving along a straight line (the familiar "arrow of time"). There is no way for the pencil to include in its movement prior points along the line, as long as the pencil remains on the line. For the successive points on the line to be comprehended (i.e., co-present), it is necessary that we move from one dimension to two, from the line, that is, to the plane. Similarly, to go beyond a merely flat planar surface, all the points on the plane may only be comprehended by adding another dimension, the solid. This much was familiar even to Euclid. It remained for Einstein to show that the three dimensions of the solid may only be transcended in the fourth dimension of time.

Let us translate this geometry into political language. When the laws of an era dictate that the shoemaker must stick to his last, the shoemaker is doomed to the repetitious monotony of performing again and again his act of making shoes. Should he remember that his wish to move beyond what he has already done so many times before, has, so many times before, been prevented by the law, which restricts him to the obdurate repetition of his activity, he may seek recourse to one of two illusory releases: the one, a post-historical heaven in which all injustices will be rectified; or, a contemporaneous "ek-stasis" in which he rises illusorily above his present, only to find himself sole occupant of an empty mysticism. From his prison of incessant repetition, he seeks release either in a post-temporal illusion, or in a transtemporal (epichronic) escape. We should not be surprised to find that it is often the same law which compresses his temporality which is at the same time the staunchest advocate of his post- and trans-temporal illusions, i.e., religion.

It is not without bearing to note that the cobbler's attempt to "rise above" the compressed time perspective which his repetitive work inflicts on him leads him to the image of a vertical time dimension, as it should. The sadness of the cobbler's plight is not his imagination of the vertical dimension. This is valid. But no transcendence comes from an *illusory* attainment of a dimension of time which rises genuinely above mere compressed linearity.

But even Plato does not tell us why some shoemakers refuse to stick to their lasts when their memories inform them that they have never done anything else, and why others do not protest at all. This question, in my view, is absolutely central to the critique of dialectical consciousness, because we cannot be satisfied with insisting that vertical time has value if we do not distinguish when it is illusory from when it is real. We must pass beyond bland assertion that there are kinds of time, that linear time is alienated time, that vertical time is the dimension in which genuine protest occurs. We must enquire not only *why* some protest, but *when*.

We may begin our enquiry by focusing on an aspect of time which has unfortunately received more attention by the physicists than by philosophers, the notion of rate of time. Just as Hegel and Marx wrote of the transformation of quantity into quality, so we may explore the transformation of succession into transcendence by enquiring whether an experience is the same when it occurs at different rates. For example, is anger anger when it is sudden and intense, or does anger become violence under these circumstances? Is the industrialization which the United States accomplished in a hundred years comparable to the 50 year industrialization of Russia? The 15 year industrialization of China? Or are these experiences quite different — (one is tempted to say *essentially* different) *because* they occur at differing rates? When Marx's proletarian sells his time per *hour* in completely repeatable units, is his oppression identical to that of the computer-programmer who processes billions of bits of identical information per *second*? Is the civil rights activist who demands power *now* no different than the gradualist, who counsels patience, even though both enlist their efforts in the same cause?

We think not. Nor is the death of thousands of unknown soldiers in the war between Athens and Sparta the same as the death of thousands of unremembered Japanese in one hour at Hiroshima. For death is not dying — death, if it be more than a concept, simply occurs, but dying is a process which takes time, as do oppression and liberation. Just as oppression prevents dialectical transformation by compressing experience into monotony, so does a liberating dialectic require a different kind of time, “vertical time.”

If vertical time exists, the beginning of an answer to our question “When do some revolt and others submit?” now begins to emerge. Revolt occurs not simply when oppression exists, but when hope increases and, “at” the same time, the rate of oppression mounts, such that even post-temporal illusory hopes are dashed. When people begin to sense that the very pace of their oppression is so rapid that it exceeds the pace of their hope for transcendence, such that their efforts at change will be outpaced, when even their illusory hopes become untenable.

This kind of sensitivity is exquisitely delicate. It resembles the perception of a man about to be toppled by winds of gale force, who in one moment will lean forward ever so slightly to brace himself for the next onslaught; and in the next moment, bend a little to deflect the head-on force he faces. Unlike the fly who pounds again and again against the window pane, a man remembers and comprehends the last rush of wind in his attempt to face the next one. So to speak, he negates the mere pastness by creating a new effort in which the meaning of the past is dialectically transformed. The name of this quality is courage, without which time merely buries memory — with it, memory may be transformed into vision.

Simply stated, then, we must learn to see not only that enforced repetition is lifeless and mechanical, but that the negation of mere repetition is provoked when the *rate* discrepancy between repetition and transcendence (losing and gaining) becomes impossibly oppressive. Yet we must move into a new dimension of temporality in our efforts to transform mere repetition, since

otherwise we leave behind the angry memory of mere repetition on which bold imagination feeds.

Freud was not unaware of this. Does he not portray the compulsion to repeat as due to the "inability" of the repressed to enter consciousness, i.e., to enter real time?

Conflict theorists will be quick to point out that such a portrayal of courage would be an exercise in romantic existentialism, if the time dimensions discussed pertained only to an asocial experience. "What," they will ask, "have you to say when, from the halls of leisure, the lawmakers send an edict that the oppressed will be disloyal if they do not continue as before?" The point of this objection may be re-phrased in the following way: When, from their position of pseudo-eternal power in vertical time, masters insist that slaves remain on the line — that it is in the nature of slaves not to transcend — we begin to see that the shaping of temporal experience is the central instrument of political oppression.

Let us take two contemporary examples: the drug subculture in the United States and the Red Guards in China. It is well-known that the most terrible rates of drug addiction in the United States are to be found in the inner ghettos of its huge cities, and that to the extent that addiction is prevalent, to the same extent need little violence be feared. It is as if narcotics anesthetized violence for those whose oppression is nearly complete, since not merely generations of poverty have been inflicted on the residents of these areas, but in fact there has come into being a whole culture of alienation which oppresses them faster than ever. As Laing has written:

From my own clinical practice, I have had the impression on a number of occasions that the use of heroin might be forestalling a schizophrenic-like psychosis. For some people, heroin seems to enable them to step from the whirling periphery of the gyroscope, as it were, nearer to the still centre within themselves.^{4 5}

We might pose a question here of the following sort: If the gyroscope is whirling so rapidly that those in the periphery of its arms will be thrown off with centrifugal force, perhaps heroin creates a temporary feeling of temporal stillness. But the poverty of this sort of temporality lies exactly in its short-lived "temporary" duration.

The pitiful attempts to reduce the incidence of addiction by temporizing with offers of equal opportunity for monotonous degrading work emerges in this connection for what it is — an attempt on the part of the establishment to preserve the status quo by tossing a few bones to the mad dogs without altering one whit the barbarous cages in which they are forced to live. Addiction in America is overwhelmingly the condition of black adolescent males. It subsists in a hugely lucrative market situation which not only prescribes but asks the victims to pay for a temporizing peace above and beyond a faltering civilization.

The same may not be said of the Red Guards, who cannot be accused of attempting to retreat into an epichronic illusion. They were not prevented from efforts to participate politically in their society. But we must ponder two questions: 1. Shall we endorse their "violence"? 2. Is their vision of a post-contemporary China illusory in any degree, i.e., do they, like the early Christians, seek heaven forever after?

In both cases we confront an intergenerational stratification wherein age, not production, becomes the stratifying criterion. It is by now a commonplace to observe that teenagers the world over are resorting to one or another of the strategies cited above: some resort to revolution, others resort to anaesthetic drugs. This is because the rate of change of their civilization now exceeds the rate at which they are socialized. They, like he who faces into the winds of change, perceive exquisitely that the styles of becoming which gave birth to their growing personalities are out of synchrony with the world they must experience. They perceive, in short, that they are required to repeat forms of life which are outmoded, i.e., dead.

In all of the illustrations presented above, we may observe the phenomenon of *rate discrepancy*. In each of them, a group has arrogated to itself the pseudo-eternal right to decide which kinds of time belong to whom. But we must question the banality of the perspective which says that slow anger is tolerable, but quick violence is not; that gradual industrialization is democratic but rapid industrialization is totalitarian; that civil rights will gradually be achieved, but not now. We may also see that some drugs serve only too well to anesthetize the violence of bourgeois values; and we must ponder whether there are alternatives to the forms of violence which seem necessarily to accompany full political participation.

Perhaps an interim summary of this doctrine which holds that rate discrepancies constitute a new form of oppression, to which we have given the name *achrony*, is in order. It might read approximately as follows: We have a sense of rate in our experience which derives equally from vital memory and imaginative vision. When the pace of experience gains on hopes for transformative and vital change, men see genuine goals and bend their labours toward them. When, however, men perceive the *rate* of receding visions to exceed the rates of their own powers, they are tempted either to revolution or to despair. The fine line between those who protest and those who submit must be drawn not along a path of mere becoming, but must be envisioned in a time context in which the different kinds and dimensions of time are fully drawn. Persons, institutions, generations — indeed, whole cultures may torture themselves and each other by failing to attend, not merely to dialectical alternatives, but to the rates at which dialectical transformations must exceed the rates of anti-dialectical temporal compressions.

If anxiety demands too much time between the impulse and the gratification; if blind alienation prevents dialectical growth; if anguish describes the impossibility of “ek-stasis;” then achrony depicts the destruction of the sense of lived process. Synchrony — “being with it” — is the experience of dialectical growth, of *contemporal* transcendence.

C. *Synthesis:*

We may begin to account now for Freud's admitted lack of "progress" when confronted with the issue of time. His was a linear perspective. And yet, in his paper, "On Negation,"⁴⁶ he made unknowing headway into the field he thought had baffled him.

Similarly, despite his courage in attempting to forge a dialectical Freud on the anvil of Marxian insight, Marcuse has not yet explicitly focused his dialectical genius on a theory of time.

The existentialists rightly wish to rescue human freedom from the linear determinations of a mechanical causality, but in viewing all time as linear and mechanical they were able to preserve a kind of freedom only at the expense of dialectical thought. The genetic epistemologists achieve a richness of descriptive power no less vivid than the phenomenologists, but since both define their spheres in large measure apolitically, they build a certain irrelevance into their work.

These are not the faults of Sartre's work. Sartre insists that the projects in which men engage be defined in terms of present memories and present goals which are determined by personal and social pastness as well as personal and social futurity — *not* by a transtemporal (ecstatic) mysticism, nor by a post-temporal (millennialist) illusion. For Sartre as for Marx, the automatic dialectic they attribute to the Hegelian Absolute is false and untenable. Without vital membership in a *project-class*, history cannot be enacted, nor can the polis be transformed. These, he rightly insists, are the *sine qua non* of liberation. Unlike those scholars who claim that we must see what is to be done *before* we do what must be done, Sartre rightly reveals that we *cannot see* what must be done until we begin to *do* what must be done.

With the utmost respect for the dignity with which Sartre has assumed the burden of creating the critique of dialectical reason, I suggest that it will be necessary, if his critique is to enjoy theoretical viability, for him to include a critique of non-dialectical time. That

is, a hard and courageous attempt must be made to liberate ourselves from the outmoded Western conception that (political) life takes place only in linear chronological time. We must insist that the dimensions of time may be even more numerous and far more rich than the customary depiction of three dimensions of space. We must cease borrowing from bankrupt physicalist philosophies which assume that time is exhausted by the naming of the past, present, and future. We must allow ourselves to be stimulated and provoked by the possibilities of intergalactic voyages which must, somehow, transcend the speed of light (which I, for one, resent). It may be impossible for an electron to be other than it is "at" any given instant. It is not impossible for a man. Nor, for that matter, for a positron.^{4 7}

Men transcend mere succession when they remember their membership in political classes whose traditions they transform in political projects. It does not suffice mechanically to dogmatize that political events consist of a thesis, an antithesis, and a synthesis. It is now more than ever apparent that the concept of time, which Hegel first inserted into Aristotle's principle of contradiction in a gigantic intellectual leap spanning two thousand years of historical time, must be carried forward another step. For Aristotle, a thing could not both be and not be at the same time. For Hegel, since things both are and are not, they could not simply be "at" the same time. Marx, like Plato, saw being as historical challenge. Sartre sees being as historical projects. We must begin to fashion a perspective which reveals not merely the necessity to negate mere succession, but to seize power over the *rates* at which liberations must come about.

Sartre pronounced that existence must precede essence, lest freedom be an absurdity. We must learn to assert that recurrence precedes occurrence; that both remembering and imagination nourish action; that membership is liberating; and that those who demand that we participate too slowly, oppress us.

VERTICAL TIME^{4 8}

But does "vertical time" exist? What do the phrases "the

vertical dimension of time” and “vertical time” mean? The suggestion is that Westerners who can snuggle comfortably in the view that space “has” three dimensions (line, plane, and sphere) should try to conceive the possibility that time, like space, may have more dimensions than the two which define it as a line. (Past, present, and future are points *on* the line.)

Let us focus now on the experience of the vertical dimension, and attempt to depict how it is inherently dialectical. It lies in the very heart of that process we call “generalization” to array a large number of common “instances” under one idea, to which we commonly affix a name, which labels it as the class, or set, of all such objects. We usually perform this magic on classes of objects we can see, visually, and for similar reasons, have come to believe that only visible objects lend themselves to the process of generalization. And, since time is something we don’t see, visually, we have come to believe that it is not a member of the class of generalizeable objects.

But this is false, as the astronauts of more than one nation continue to visibly demonstrate. Their trips are vivid proof that a very substantial theory of temporal generalizations does in fact exist.

And, as has been argued elsewhere,⁴⁹ the LSD trips of those astronauts of inner space we call “heads” also provide us with proof that times too are experientially generalizeable, that tripping *is* an experience of temporal generalization, in which the exponents of time, or rates of temporal change, and not simply mechanical succession, are deliberately enjoyed for their own sake. Heads who manage to trip successfully and without discernible damage, are perfectly comfortable with shifting rates of joy. Indeed the more rate changes one enjoys, the better the trip. This is so because acid, for “heads,” seems to confer the mysterious ability to expand the apperception of time, such that, when you have more time to enjoy what you’re into, you enjoy it for a longer time.⁵⁰

To put it another way — if you experience your experience occurring at a slower rate than your wristwatch, you will feel like you have more time to spend on each experience. However, you aren't *experiencing* slower than your wristwatch. In fact, you're processing *more* information than usual (for example, your eyes are dilated, letting *more* light in). Thus, while it helps a little to say that it feels like you're going slow and your watch is going fast, it is more accurate to say, as heads do, that you're "high", as in a higher level of generalization. Another metaphor describing the high is this: imagine walking on your knees, underwater about four feet deep, then standing up into the fresh air and blue sky. Now imagine that the water is clock time, (or, as Heidigger called it, *Das Element*) and that time is to us what water is to a fish. Now ask yourself — what is this fresh air and blue sky *above*? It must be another *kind* of temporal experience. One which generalizes clock time, hence both transcends and illumines it, as a generalization illumines a particular. Clock time is seen as *only one* of the kinds of temporal experience you can have when you become aware of other kinds.

But how is this possible? Isn't there only one kind of time, the succession of one moment after another, that is, what Bergson called duration? Perhaps the physicists are the right people to answer this question. But be prepared even there for a surprising answer, since some physicists are now accustoming themselves to the idea that time is not an invariant, and that not all fundamental qualities (e.g., the positron) are, as they say, anisotropic,^{5 1} or one directional. And it just may be that there are *other* kinds of time if we but knew how to look for them.

But, whatever the physicists find, theoretical and clinical scientists do not have to pore over abstruse mathematical equations to become aware of an experience in themselves and in their constituency of a very common experience, namely, that sometimes(!) experience seems to drag, so that minutes seem like hours, and, "at" other times, experience is so joyful that hours seem like minutes.

What I am asking you to imagine, if you have not had a psychedelic experience, is a region of consciousness in which time becomes so elastic that both expanding and contracting time become only two of the qualities of another whole region of temporal experience. In addition, I not only ask you to imagine it, but I suggest that the experience of this region is absolutely commonplace, a common characteristic of everyday life.

To understand this, you have but to reflect that a generalization, *any* generalization, consists of arbitrarily drawing an imaginary temporal parenthesis around a number of remembered experiences you have had before, so that you say, in effect, these are all kind "A" and all the rest are kind "not A." That is, as Hegel noted long ago, negation is constitutive of assertion. You must say this is *one of these and not those* in order to say this is this. You must, as Plato noted long before Hegel, *re-cognize* in order to cognize at all.

Dialectical theorists are wholly familiar with this line of reasoning, which was sufficient unto the task of describing how we generalize as long as the world moved by at a relatively slow and manageable pace. In such a world, the frequency with which a number of A's came by was relatively comfortable, and one was under no special press to construct categories to subsume all such A's. Recall that Aristotle constructed a metaphysic in which 10 categories subsumed the entire cosmos.

But now, when the pace at which new A's enter experience is so fast and furious that we must become specialists in order to manage ever smaller quadrants of daily life, the situation is almost totally different. Marx described an industrial revolution that took a hundred years to elapse. We now process experience via computerized machines that change the nature of the environment every ten years.

And heads devise environments in which a dozen movies, a dozen symphonies and a dozen Kaleidoscopic strobe lights barrage

their consciousness with sensations as awesome in number and kind as the birth of a galaxy billions of light years in "size."

Confronted by a rate of experience of such stupendous (or mind blowing) complexity, the human kind must attempt to re-cognize faster than ever before. To do so requires wholly new *kinds* of generalizations. Therefore, we should not be surprised that many people in diverse regions of society have begun to move beyond generalizing only visible objects, by attempting to generalize (invisible) *times*. Many are beginning to learn how to have such experiences comfortably and joyfully because they know that just as duration generalizes rest, as velocity generalizes duration, as acceleration generalizes velocity, so there are other kinds of temporal experience which have as their particulars, changes in the rate of change. They confirm William James' view that there are regions of mind as unusually different from our waking consciousness as our waking consciousness differs from our dreams.^{5 2}

One of these regions, I hold, is filled with that kind of time heads call "high," a region which consists of the *generalizations* of our more banal experiences of duration, velocity, and acceleration. I think we have become aware of it recently, because the number and *kind* of change-experiences thrust on us by our hurtling cybernetic environment, has made obsolete our usual methods of making generalizations, that is, of *re*cognizing our world in traditional spatial categories.

This view gives us the basis of an answer to our central inquiry, which may now be rephrased as follows. Could it be that a higher more general kind of time may be in conflict with a lower more special time as a meta-message may be in conflict with a message, as in the double bind theory of schizophrenia? That a bum trip consists of the annihilating terror of being in what feels like two different times at once? Could it be that time, which we thought at its very interior core to be of the rate of things, might consist of levels of itself characterized by differing rates of occurrence, such that clock time is only one specific form of experience?

The hypothesis is attractive, since it helps to explain why some schizophrenics are described as stuck in "concrete (linear) thinking" while others seem lost in a strange world of racing images. It helps to explain why "talking somebody down from a bum trip" consists essentially in telling him to "go with it" — "get into it" — "ride it" — "follow it" — "it's alright — it's all valid experience." It even helps to explain why it's called a trip, as if it were a voyage in time.

In this connection, it is instructive to recall the theoretical paradigm of the double-blind theory of schizophrenia. Bateson and his co-workers wrote:

Our approach is based on that part of communication theory which Russell has called the theory of logical types. The central thesis of this theory is that there is a discontinuity between a class and its members.⁵³

If we recall that the *genesis* of a logical class is a generalization made to re-member all experiences of a given kind, it begins to be clear that double-bound (schizophrenic) persons are those told simultaneously to experience a particular and yet deny validity to the experience of its class. In other words, the bind prohibits the experience of generalization (uniting past and present experiences in a synthesis) yet commands the present experience to be familiar. This annihilation of memory negates the very process of present experience.

Bum trips, like schizophrenia, are therefore well described as failed dialectics, since their pathology results from the negation (of "normalcy") not itself being negated. Some therapists encourage the schizophrenic to "go on through" the process of madness, since they believe, and, I think correctly, that madness is only the second moment in a dialectical process, that madness itself must be negated after it negates "sanity."⁵⁴ The above is only a very fancy way of defining the word "freaky" in the context of a "freak out" philosophy, which regards episodes of madness as prerequisite to the achievement of a "higher" synthesis.

In the instance of schizophrenia, our hypothesis suggests that there is indeed a double bind at work in its genesis, but that double binds are a very special sort of *temporal* contradiction in which the person is not only asked to remember what he is commanded to forget: he is also asked to experience two different times simultaneously. Yet this is a patent impossibility unless the person can be made aware that he will not lose his mind but gain another dimension of it by entering a region of experience in which such time conflicts are only special cases of another kind of time, which, if he chooses, he can inhabit comfortably. Unfortunately, few therapists are aware that there is such a region, and therefore find it impossible to offer support and encouragement to a patient who is trying to find it. Therapists addicted to the view that there is only one kind of time, clock time, will obviously not be able to avail themselves of this clinical prerogative.

Vertical time, then, although depicted spatially in our paradigm as a perpendicular to the linear arrow of time, bears the same relation to linear time as the plane bears to the line it generalizes. It is the dimension of all linear times, as well as a kind of time of another sort. Are there even other sorts? The question leads to an examination of the sociology of emotion.

SOCIOGENESIS OF AFFECTIVE PROCESS

Sociology, at present, seems to be without a theory of emotion.⁵⁵ We find occasional descriptions of socioeconomic predicaments and correlated "states" of feeling in what are customarily described as cross-sectional studies, i.e., sociological slices of life. But we are still very far from the day when we shall be able to say, with a comfortable degree of certainty, that people in situation "A", will probably feel emotion "a", in "B", "b". etc. When, for example, we speak of an "angry mob," we do not necessarily mean that each numerical individual feels anger. As Freud aptly demonstrated in *Group Psychology and the Analysis of the Ego*,⁵⁶ an angry mob may consist of a few angry men and a majority of decompensated followers. Reductionism of type I looms as a danger here, because, in our day, a feeling is said to be the property of an individual, not a

quality of social entities. And yet we say that feelings motivate groups. Thus we may speak of a "restless" people, a "ferocious" people, a "quiet peace-loving" people, and of "warlike" peoples, only by pretending not to reduce the sociological phenomenon to an arithmetic of individuals.⁵⁷

Emotions and feelings, in our view, are the feedback of anticipated actions, the registry of the future, as it were, of altered conditions of social readiness (or unreadiness) in the face of new stimuli, be they fantasies or cultures.⁵⁸ Groups, in our view, consist of the patterns of the behaviors of people whose relations to each other are patterned by the groups they form. Thus, what a given individual feels when he behaves in a group is relevant to the question of the social genesis of affect exactly insofar as his feeling is defined as a feeling by those behaviorally concerned with his behavior, including himself. To be sure, the feelings which the person and his "others" each feel also shape the patterned interactions in which they engage, but the extent to which there is something like an emotion feedback which characterizes the *pattern* in which they are engaged (let us imagine it as a "tough company to work for"), and the extent to which this pattern priorly shapes what they feel is, it seems to us, much in need of exploration as well as terminology. It was toward the cognitive aspect of this issue, we believe, that Durkheim was moving when he employed the term "collective representation." Although reductionism is always bothersome it was not the reductionism of his formulation, we believe, but the difficulty of the problem of social affect which seems to have perplexed him, his contemporaries, and his disciples. Thus it received minimal attention. No argument is offered here that we are any more able to tackle the question. We do make a brief, however, for the possibility of investigating the phenomenon of social affect in the context of a temporalist orientation, since, if people have feelings about the quality of their life-processes, and if, as we have suggested, the social conditions which determine the extent to which their lives proceed at satisfactory or unsatisfactory rates simultaneously determine what we are calling social affect, then perhaps the time has come to begin a proper investigation of social affects.⁵⁹

Again, our everyday vocabulary provides us with a beginning. We say, for example, that the "mood" of a meeting was "sullen," "anxious;" that a party was exciting, a play, depressing, etc. These macroscopic determinations of the "emotional" qualities of social groups do not permit of reductionist descriptions. Thus, a cocktail party may be experienced as exciting even if one or two individuals were down and out. If we insist on asking how many people have to be counted as dull before a whole party is said to be dull (type II reductionism) we barely begin to recognize that groups have properties analogous to individual feelings. Yet, *somehow*, we intuit these holistic estimates. Were we more systematically to investigate the social circumstances of these intuitions, we might find that there are patterns of "group affect." That these are difficult conditions to "operationalize" no one will deny, but difficulty is not impossibility; let us begin to move beyond static dissections and "snap-shot" studies. Since a lengthy exegesis would be inappropriate here, a few introductory remarks about the emotional relation between dialectical conceptualizations and the achrony-synchrony paradigm will have to suffice.⁶⁰ Some clarity is achieved if we ask "does acceleration ameliorate the anachronic situation?" or conversely, "does deceleration ameliorate the metachronic condition?" Do they make it "feel" better?

We are tempted to respond with a categorical "no" but that would be aprioristic. The reasoning behind our temptation is as follows: Hegel and Marx, the best protagonists of dialectical thinking, were nonetheless (actually, all the more) creatures of their age, which, it will be remembered, were the halcyon days of Newtonian physics. Newtonian time is linear, regarding past, present, and future as a sufficiently elaborate formulation of "actual time." Yet, even for Hegel and Marx, the extent to which the dialectic of Being — non-Being was resolved in Becoming implicitly involved more than linear continuity. After "A" receives its mediation by "B", the new reality, "C", is not merely more of "A" or more of "B" or even some sort of "A plus B." To the extent that synthesis of the antinomy between "A" and "B" has taken place, to that same

extent, they alleged, did a transcendence, (i.e., a new reality of a "higher order") emerge.⁶¹

More concretely, Marx did *not* write that the condition of the alienated was improved merely because it continued to endure into the future. Actually, the converse is true: the "longer" alienation lasts, the worse does it become.⁶² Nor, in his view, was it possible merely to accelerate the pace at which "profits" were distributed more equitably, since the conditions which motivated the "capitalist" to retain at the rates at which they retained were as constitutive of their class structure as injustice was constitutive of the class structure of the proletariat. The dialectical negation (revolution) of the oppressive thesis (profit motive) must bring about a *new* order (synthesis), a pattern of social reality whose seeds were sown in the former, but whose fruits are to be reaped only in a wholly *new* set of social realities.

Similarly, retraining today's unemployed by allocating monies from today's profits would, it is argued, present an insuperable (i.e., more cost than profit) barrier to "progress" (more profit than cost). Or, in the instance of the adolescent, it is argued that a social structure in which puberty actually brought with it the privileges of adulthood would topple the present social structure of age-status stratification.

Thus, an anachronistic situation is not transformed into a synchronous one merely by hurrying. When the rates of behavior are too slow, acceleration makes them go faster, not feel better. Someone who goes too slowly doesn't feel slow, he feels "bad." Someone who goes too fast doesn't feel rapidly, he feels distressed. In short, the feelings which characterize the various achronistic orientations are those which characterize an incompleting dialectic. Hegel described "the unhappy consciousness;" Marx described prolonged estrangement.

Synchrony, then, is not the middle road between turgidity and rapidity — it is the apperception of harmony which accompanies

generalization. The painter who says "It is going well" describes a process in which synthesis is occurring at a pace comfortable for his talents, be they mean or inspired. When no generalization, creativity, synthesis, transcendence, growth, development (call it what you will) is experienced, life disintegrates into the dimensions of achrony, i.e., too fast, too slow, too high, too low, too good, too dull. Synchronization, then, is the dialectical resolution of achrony; achrony is the disintegration of synchrony. When it "goes well," paradox of paradoxes, *we do not notice the time passing*. The "interval" between creative urge and creative act lies unmarked: we do not need to "pass the time" nor "long for the day" when our hopes will be fulfilled. In short, when we dwell upon the rate of satisfaction, we do not enjoy the process — we criticize it.

Religions have made much of "timelessness." So have Freud and Eliade.⁶³ The perfect simultaneity of desire and fulfillment has been universally extolled as the ultimate happiness of man. This is so, not, in our view, because there is a "place" where this kind of process is actual (whether it be heaven or the id), but because, for each of us, though far too rarely in our lives, we have experienced "times" in which we needed to note no duration, no passage, no motion. The extreme rarity of these experiences, and conversely, the all too frequent occurrence of forms of achrony, is coterminous with the extent of human pathology.

This helps us to understand how each of the achronistic orientations contains an illusion of synchrony in its portrait. The epichronic timeless heaven seems synchronic, as does the anachronic blissful nirvana. The metachronic utopia resembles the catachronic relief in suicide. In each orientation, there is an attempt to compensate for the lost time, whether it be the "injustice of birth"⁶⁴ or the attempt to recapture "innocence" or "paradise lost." Sensitivities are sometimes modified in such ways to lessen the pain of loss⁶⁵ inflicted by death.

It has commonly been observed that cultures vary in their definitions of the ultimate good. But the proliferation of the cultures

of man need not blind us to the fact that no man, be he "primitive" or contemporary, enjoys mere endurance. All men, it seems, though they variously describe it, have experienced what we here call synchrony, that is, moments in their lives when a harmony of paces was felt so pleasantly that they did not need to "mark" the passage of time.

Thus, synchrony is a dialectical experience, and the various forms of achrony, tentatively described here, represent moments of pain when the pace of experience is without genuine mediation. It is as if there were a beautiful pace of feeling natively within us, the result of the concatenation of our biological, social, and cultural development, which we alter only at our peril.

VARYING VARIATIONS

We have clocks to measure linear time, "biological clocks" which regulate and synchronize physiological times; are there psychological and sociological clocks as well,⁶⁶ which measure variant sensibilities to the tempo of experience? How many "dimensions" of temporal experience are there?

These inquiries, however basic they seem, are themselves based on the assumption of a uniform, i.e., invariant rate of experience. There are still others.

Let us turn then to the question of non-uniform increases and decreases in the timing of experience. We may begin by inquiring whether we sometimes feel accelerations in the pace of experience which we nevertheless somehow feel to be decreasing accelerations; in other words we know that we are quickening the pace of our achievement, but that the rate of quickening itself is slowing down. The curve of sexual ecstasy reaching orgasm is an example. Another example occurs when we tromp on the accelerator of a very finely tuned car. We first experience an increasing rate of acceleration, in what statisticians refer to as a "J" curve. But as we approach the limit of acceleration within that gear, although we are still accelerating, we are picking up speed at a slower rate. Were we to

remain in this gear, the statistical description of our speed and rate of acceleration would begin to reverse its slope and taper off, and gradually resemble a plateau. Thus:



To continue the metaphor: If we were engaged in an exploration of the performance characteristics of this gear range and of no other, we would begin to apply the brakes in order to bring the car to an eventual halt. And, as any racing driver knows, in our effort to decelerate the vehicle, we do not apply a uniform pressure to the brake pedal, which means that while it is true to say that the vehicle is decelerating, we know that it is not decelerating at a uniform rate. When our foot is on the brake, we are increasing the rate of deceleration, and when our foot is off the brake, although we are still decelerating, we are decelerating less rapidly. Thus:



In this situation anachronizing and metachronizing occur at non-uniform rates. In other words, we may perceive increasing or decreasing acceleration or deceleration. The perceptive reader will note that we have so far restricted our attention to the customary linear dimension of time captured in differential equations. It remains to demonstrate that homological phenomena occur along the other two axes of our paradigm. We present schematically all such possibilities on page 152.

The situation in which the racing car initially accelerates acceleratedly corresponds to our cell "2b," that is, it metachronizes metachrony. When it begins to slow down its rate of acceleration, it corresponds to our cell "2a," that is, it anachronizes metachrony. Similarly, when it slows down initially, more rapidly than it slows down later on, we observe a metachronizing anachrony and eventually, an anachronizing anachrony: ("1b" to "1a" respectively).

| | ANACHRONIZING (a) | METACHRONIZING (b) | EPICHRONIZING (c) | CATACHRONIZING (d) | HYPERCHRONIZING (e) | HYPOCHRONIZING (f) |
|-----------------|----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| ANACHRONY (1) | 1a | 1b | 1c | 1d | 1e | 1f |
| METACHRONY (2) | 2a | 2b | 2c | 2d | 2e | 2f |
| EPICHRONY (3) | 3a | 3b | 3c | 3d | 3e | 3f |
| CATACHRONY (4) | 4a | 4b | 4c | 4d | 4e | 4f |
| HYPERCHRONY (5) | 5a | 5b | 5c | 5d | 5e | 5f |
| HYPOCHRONY (6) | 6a | 6b | 6c | 6d | 6e | 6f |

Let us attempt to describe sociologically related phenomena along the other axes. Imagine a culture in which there is a gradual (i.e. uniform) accumulation of oligarchical political power. One thinks of the coalition of wealthy families who arrogated to themselves the powers of the citizenry of glorious Athens. This "trend" was perceived. In order to "bring down" the rate at which this oppression of the Athenian population was taking place, the politically jealous would have either to dissipate the rate of power-concentration, or seize power themselves before it was too late: that is, either catachronize the epichrony, or epichronize themselves. (3d, or 3c respectively). More prosaically, we might describe this situation as one in which the pace of political evolution is felt to require either *devolution* or *revolution*.

A full description of each of these achronistic interactions lies beyond the scope of this paradigmatic analysis, and must await the concatenation of data from studies now in progress. However, one further illustration seems in order, since the two examples we have given each illustrate only one dimension of our paradigm.

Imagine a situation in which a young man is "looking forward anxiously" to a date with a pretty young woman who has recently entered his ambience. As the appointed hour approaches he becomes increasingly "anxious," but since the eventual consummation is "nearer" than before, his anticipation is now mixed with a mildly pleasurable eroticism. For a few brief moments he entertains the (paranoid) suspicion that the assignation may not come to pass, which "chills" him momentarily. But he "puts this thought from his mind," and returns to the pleasure of his original fantasy with "heightened" anticipation.

We see here an initial increase in his "anticipatory anxiety" which he hypochronizes by envisaging a more pleasurable erotic effect. This fantasy, however, unleashes an even greater torrent of hyperchronic "anxiety" which he handles by increasing the degree of his hypochronization, i.e., denial of "anxiety." He attempts to achieve, as it were, a "euchronistic" equilibrium.

It will be noted that without the actual experience which he so fondly awaits, a genuinely "synchronous experience" will not be had. This serves to refocus our attention on the abstract character of the above illustrations, since, quite obviously, not only the diagonal, but the horizontal and the vertical dimensions of the paradigm are requisite for a fully synchronous experience. As noted above, the empirical description of complicated life processes which demonstrate the co-constitutive mutuality of the axes of paradigm remains to be accomplished. It should not be necessary to point out that actual occasions will not be easily described only by resorting to simple pairs of adjectives; we expect that social processes will trace a crooked line through our neat and hence naive categorizations. That this is the predictable fate of "ideal types" is well known.

For example, accelerating decelerations and decelerating accelerations are far simpler phenomena than those we find incarnated in the cross-cultural universal we call music. Were we to devote some attention here to repeating rates and varying durations between

them, and to some of the archetypes of rhythm, tempo, cycles, and other forms of periodicity, we would risk opening the temporal typologist's pandora's box.

It is sometimes speculated that the first form of time which the unborn organism experiences is the maternal heartbeat, of which the organism becomes "aware" through the periodic surgings and swellings in its intrauterine abode. Others are of the opinion that the prenatal organism is made aware of the beats of its *own* heart through its own periodic swellings and pulsations. Thus, in the "preemy" nurseries which are charged with the responsibility of providing the neonates with an environment which most resembles the uterine paradise from which it may feel "untimely ripped" it has been found that the placement of clocks, metronomes, or other rhythmic devices correlates very highly with apparent decreases in infant discomfort and increases in metabolic well-being. Similar experiments with animals have resulted in similar findings.^{6 7}

Graphically, we depict such *recurrences* as "periodic functions" and we are accustomed to measuring the intervals between peaks and troughs of such mathematical entities as sine curves, and of other less uniform functions, such as brain waves. We draw attention here to the fact that little attention has been paid to related phenomena in a sociological way. Moore's work is instructive.^{6 8} Pareto's cyclical theory of history is also a case in point, as is Sorokin's typology of civilization processes. So is Gurvitch's work.^{6 9} Some have alleged that the cyclical theory of "eternal return" was opened out in the "Judeo-Christian" conception of history wherein man, from his transcendental beginning in the Godhead, proceeds through a linear history toward his ultimate transcendental transfiguration; others see in this only a larger circle. Even Engels seemed unable to defeat this image, falling into an interpretation that the Universe endlessly repeats itself, the corollary of which seems to be that man has been before and will be again, yet strive we must for *THIS* dialectic must be fulfilled. From such a frame of reference, even Spengler's dreadful anatomy of human times seems a relief. In short, although the

phenomenon of periodicity has been paid attention in fields of endeavor as far removed as embryology and the so-called "philosophy of history," yet little attention has been devoted to non-linear patterns of occurrence on small group levels of analysis,⁷⁰ or, for example, in large organization analysis.

And yet, the units in which we measure time for ourselves are ALL recurrent, since recurrence lies at the very heart of what we call time. Seconds, minutes, hours, days, weeks, months, years, centuries, each, in our language, *recur*. It was this need to *recognize* the unit of measure which drove Plato to paint his theory of knowledge as an allegory in which the soul was enabled to know a reality because it *remembered* the true reality (of which the present was only a copy) originally experienced in the eternal (unrecurring) realm of "Truth." (We pass over the fact that this allegorical depiction has been seized upon by the literal-minded, as Plato's final words on the subject of cognition.) We meet here a terribly difficult epistemological paradox which has not been resolved even in the wonderfully sophisticated laboratories of the learning theorists, for (to paraphrase Heraclitus) if we have never confronted the phenomenon before, we seem to be without standards for its recognition. Yet, if we have met the unknown thing on some other occasion, it is not unknown. In the former instance, the phenomenon is unintelligible; in the latter, trivial. Even the psychoanalysts, who assert that we compare new experiences to phantasies in order not to be overwhelmed by their novelty, have not been able to establish to their mutual satisfaction, how we handle "original" phantasies. That Jung's "archetypes" were offered as a solution to this problem is as well known as its many criticisms. Equally well-known is Sartre's rebellion from the position which asserted that the models (*nee* essences) of realities, were they to pre-exist the realities themselves, would foredoom man to a sterile repetition of already blueprinted situations, thus making human freedom a mockery and an illusion.

In short, if we do not accede to a prior criterion of measurement, we cannot measure; yet, if we accede, we seem to preclude novel measures. Of course, this theoretical trap does not

ensnare our actual experience, since there is a huge difference between understanding what we do and actually doing it. We make "serendipitous" discoveries all the time, without having a theory of serendipity. Our purpose in outlining these theoretic pitfalls is precisely to point out that the familiar and the linearly recurrent are *not* the sole criterion but *a* criterion, so that we may the more readily distinguish between the two. It is well known that Einstein had to define anew in order to transcend the limits of Newtonian physics. Equally familiar is the description of the conservative *vis a vis* the progressive: the one "holds onto" the familiar, the other "embraces" novelty. In Mertonian terms, these are the ritualist versus the innovator. In our view, special attention needs to be devoted to the time-sense of these personnel, since it may well be that the specific content clung to or sought for is irrelevant to the social dynamics of those who prefer the *recurrent* to, shall we say, the *occurrent*.

Let us pass from these cerebral devices to an illustration more appealing to the viscera. In matters of music, we confront a richness of variation in temporality unsurpassed, it seems to us, in any other field of human effort. Until very recently, music was written with an indication to the performer that a certain measured tempo was to be followed throughout, and that the insertions of artistry permissible to the performer and the conductor were to be made within such composerly limitations as were contained in such phrases as "*allegro con vivo*" or "*crescendo molto vivace*" etc. More generally, we know that some cultures seem to have a preference for slow and moody symphonies, others seem taken with Jazz; some prefer marches, other, festival dances. It would seem that there are favorite rhythms, not only in individuals but in whole social entities, such as cultures, sub-cultures, and even smaller groups which we occasionally designate as aficionados.

These poor illustrations serve to focus our attention on the fact, well known but little studied, that people seem to have variant experiences of periodicity, and that we might do well to investigate

the relations between the durations and recurrences which characterize what we might call social rhythms. From Freud's "repetition compulsion" to Pareto's cycle of elites, there is a very large area of virtually unexplored territory. Nietzsche's eternal return may not, in some future study, turn out to be very different in motive energy from Rank's postulated wish to rebecome the placid foetus, nor may it be unlikely that the Utopian linearist differs significantly in temporal form from his younger brother, the adolescent impatient for adult sexual privilege.

To phrase these matters in our own language, we might write that human life seems to embody not only variant speeds, variant accelerations and decelerations, and variations in the uniformity or non-uniformity of these parameters of observation, but seems also to consist of recurrences of events of varying intervals and periodicities. Were this not so, we might derive views of the real world as utterly repetitious and therefore uninteresting, boring, even fatally irrelevant to experience, or, on the other hand, so filled with novel unfamiliarity that the very attempt to find pattern and order is doomed to failure.⁷¹ In language which some will deem more properly sociological we might point out that, so to speak, the "function" of a norm is to render predictable in some degree a behavior which would otherwise be unpatterned, chaotic, and hence, a-social. To the extent that the stranger speaks in words we have learned to recognize as our own, is he not strange; to the extent that events are commensurate with our expectations, to that extent may we direct our behavior to whatever outcome we desire. However, the converses are also true: the stranger with whom we cannot communicate stirs up a restlessness; the scene in which we may not in any sense predict the outcome of our behavior will demolish our behavioral repertory. In sum, *recurrence precedes occurrence*; it isn't "logical," but it's true. When it doesn't, in the ways we have outlined above, we have achrony, in varying degrees and types. And yet, as we have outlined above, synchrony includes novelty; creativity, paradoxically, is never *ex nihilo* but always *de novo*.

THE VIDECHRON

Two sets of experiments we have been conducting constitute pilot studies designed to investigate these phenomena. One is frankly modelled after Sherif's now classic studies in the "auto-kinetic phenomena."⁷² In his design, subjects in a dark room were asked to report how far a light was moving. It was found that isolated subjects could be induced to cluster their responses around a group mean, that the mean was variable and subject to experimental alteration by the introduction of "liars."

We proceed as follows. Subjects are seated (alone, in groups; we vary it) in a room, for a standard interval (say 10 minutes). They are then asked how long they think they were in there. Some subjects are given busywork (routine tasks), others are given important work (this takes a little interviewing). They are asked about durations. "Liars" are introduced to alter means. Differences are highly interesting, and will be reported as soon as we can write them up systematically. We were looking for differences in hypothesized rate thresholds, and we found them. So much for Box III.

We were bothered, however, by the artificiality of the experimental situation. What we needed was a situation in which small groups were engaged in actual (not experimentally induced) interactions, whose pace we could modify without creating an unlikelike situation.

As luck would have it, we were invited to investigate the patterned interactions that took place in what was called "Multiple Family Therapy,"⁷³ a situation in which several families together with their identified adolescent schizophrenic patients, a therapist and an observer (ourselves) experienced 90-minute therapy sessions.

Hypothesizing that varying rates of interaction would fit our paradigm, we naively tried to make intelligent observations *during* the sessions. We were quickly overwhelmed by the sheer complexity of the data. Tucking our catachronic tails between our legs, we slunk away for simpler pastures.⁷⁴

We were aware that Cornellison⁷⁵ and his co-workers had done some interesting things in psychiatric research, such as showing the film "Snake Pit" to a back ward of schizophrenic patients, i.e., a snake pit. They liked it. Cornellison also showed snapshots of patients, taken during therapeutic interviews, to the patients. Catatonics who had long been severely withdrawn responded dramatically, reentered the arena of social communication, and began the long road to recovery.

Henry Murray has reported on some aspects of a series of experiments in which he and his associates engaged.⁷⁶ As usual, the design of Murray's study is fascinating, and as usual, he attempts to study those aspects of personality which everyone agrees are most intriguing but which seem to most investigators to be least amenable to experimental observation.

Briefly, Murray and his co-workers have devised a dialogue to be filmed and then shown to the participants. Each of the two members of this proceeding have exchanged written autobiographical statements which pretend to reveal deep values and other philosophical reflections on the conduct of experience. During the discussions of these values, one member of the dialogue suddenly descends into a vituperative polemic, much to the other's astonishment. Presumably (or perhaps axiomatically), this switch in plan from a pleasant discussion of life's values to an anxiety-laden defense of one's metaphysics provokes behavior which will correlate with rises and falls in "measurable" anxiety levels. Because the subject (he upon whom the barrage of insult falls) is asked to write what he remembers of the session at various time intervals *after* it has happened, and because he is confronted with tape recorded and filmed documents of this actual occasion,⁷⁷ the experimenters are able to estimate the relation between re-exposures and *retention*, *redintegration*, *retroactive inhibition*, etc. Although this seems to be the best of all possible worlds in which to measure anxiety and its consequences, an experimental design on which we have been working during the course of a series of pilot studies conducted during the last few years, embodies a principle very similar to

Murray's, yet offers some peculiarly Murrayian advantages lacking in Murray's own original design.

Instead of filming a proceeding which involves only two persons, we have been recording proceedings at various levels of numerical and sociological complexity on television tape.^{7 8} This has several advantages of which the following is perhaps the most noteworthy. Since television machines record instantly on electromagnetic tape, there is no film developing *time* required for the playback. In effect, this means that a group may *re-experience* the proceeding immediately after (indeed, during) a session or at variable time intervals thereafter. By telerecording their re-experience as many times as we wish or by editing the playback for sound or speed, we may begin to investigate the temporal aspects of group process in a temporal way. To put the matter differently, we may vary the temporal aspects of the proceeding in order to observe the subjects' estimates of the temporal aspects of the proceeding. In short, the telerecording design allows the investigator to vary time, instead of pretending that time is a constant for all interactions. The fact that we may then record proceedings of variable "times" and measure their inexperienced duration comes to us as an added benefit. The decision to allow subjects to witness their behavior during the playback has led to some interesting tests of the extent to which an individual's anxiety is a function of the group apperception of time.

It is usually claimed that the record of a therapeutic session presents the patients with the reality of the situation, and that repeated re-exposure acquaints him with it in a healthy way. If it should emerge that repeated exposure to a proceeding in which one is involved (what Cornellison has called "self-image experience") is of potential clinical application, we would not be unhappy.

Perhaps a slightly more technical paragraph will be permitted. We are becoming increasingly sophisticated in the use of "projective tests." We know that people will "distort" photographs, drawings, stories, sentences, in proportion as they need to do so. This helps us

to understand their needs and "press", since we assume we understand the projective devices. If we represent an audio-visual record of an actual proceeding, we may find that some significantly new temporal dimensions of the personality become visible to the researcher.

More specifically, our pilot studies indicate that the assemblage of television equipment, including a fixed camera which transmits to a tape recorder, which transmits to a monitor (an assemblage we call the Videchron), permits us to vary one aspect of experienced time for the experimental study of actual occasions. The theory is relatively simple.

Note that while you speak, you listen to your speech, editing, as it were, as you go along. You can't see your facial gestures, even if you try, unless you see a mirror. But the mirror is simultaneous editing. Unless you are uncommonly "reflective," you may not notice that you sometimes talk and gesticulate very rapidly, at other times very slowly. With the Videchron you have the opportunity.

Now imagine that you are witnessing a group discussion in which you were a participant, but that the playback is taking place at a very slow rate. You will now have more time to feel what you felt then at clock-time. Conversely, if we play back faster than the rate at which we originally recorded, you now have less time to feel what you then felt. By varying the rates of playback, we can find when you're comfortable, when you're not. And if we ask you how you felt, you don't have to re-behave, which would re-introduce your editing.

Next we put you in a fast-moving group, a slow-moving group, an alternating group, etc., until we find a pace, or a pattern in which you feel comfortable. We expect, by clever interviewing, to find the circumstances in which you adopt various achronistic orientations. Although it is too soon to report significant statistics, the trend seems to be that individuals have mean pace-thresholds which groups can vary somewhat, that groups have mean pace-thresholds that

individuals can vary, somewhat, and that pace sometimes acts as an independent variable, sometimes dependent.

The Videchron enables us to experimentally investigate alienation, anomie, and anxiety on the small group level. By devising production-distribution-consumption schedules as tasks for small groups, we may induce alienation by the application of injustice. Whether such investigations, which might eventually reveal methods of reducing alienation (other than "violent" revolution), are therefore moral is an issue which disturbs us. Similarly, by anachronizing the normative structure of a group, or by metachronizing sudden norm changes, we may induce anomie. The moral issue looms here as well. The induction of anxiety, however, has been pronounced ethical by our society, if and when it takes place in professionally conducted therapy sessions. Here social legitimation has been granted, presumably because the therapist permits no more anxiety than the patients can tolerate. But even here, "the human kind cannot bear very much reality," as T.S. Eliot said.⁷⁹

Space does not permit a more exact description of the experimental ramifications of the achrony-synchrony paradigm. Among the issues which we must leave to another time are the relationship between the forms of anxiety (e.g. "separation," "castration") at phase-appropriate stages in the socialization of the child, and the achronistic orientations which develop as "defenses" against them. We intend also to explore the notions of immortality, timelessness, and their relation to the experience of mortality and death. Freud himself wrote:

Again and again I have had the impression that we have made too little theoretical use of the fact, established beyond doubt, of the unalterability by time of the repressed. This seems to offer an approach to the most profound discoveries. Nor unfortunately have I myself made any progress here.⁸⁰

Thus Freud invites inquiry into the relation of time and anxiety

explicitly, while Marx and Durkheim do not. The relevance of the achrony-synchrony paradigm to the notions of alienation, anguish, and anomie, hinted at above, require further exploration. We are presently engaged in this undertaking, under the hypothesis that discrepant rates of behavior in different sectors of the social system may serve as indices for predicting *when* human pathology will occur.

SUMMARY

By focusing on experienced time and on rates of behavior, a paradigm of variants of time-experience was presented. An experimental technique for the investigation of varieties of felt time was discussed, as were correlations with the concepts of alienation, anomie, and anxiety. Pilot studies in this area were described, as were possible implications for further research.

EPILOGUE

If the reader who found himself made uncomfortable by the anacoluthic style of my work, which hops from one discipline to another frequently without benefit of logical nexus, will bear with me for a few more paragraphs, I would like him to know whereof it comes. That my principal mentor is Galileo was made apparent in my point of departure. But my *hubris* is larger, since I take my task to be the founding of a new cross-disciplinary science, which I would like to call "chronetics." Groping toward that purpose, I have drawn considerable consolation from Einstein's forward to the "*Dialogue concerning the two Chief World Systems*," where he wrote:

It has often been maintained that Galileo became the father of modern science by replacing the speculative deductive method with the empirical experimental method. I believe, however, that this interpretation would not stand close scrutiny. There is no empirical method without speculative concepts and systems: and there is no speculative thinking whose concepts do not reveal, on closer investigation, the empirical material from which they stem. To put into sharp contrast the empirical and the deductive

Galileo's disposal were so imperfect that only the boldest speculation could possibly bridge the gaps between the empirical data. (For example, there existed no means to measure time shorter than a second). . . His endeavors are not so much directed at "factual knowledge" as at "comprehension."⁸¹

Chronetics should consist of both. And more. Much more.

NOTES

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76. Murray, H., "Studies of Stressful Interpersonal Disputations," *American Psychologist*, 18: 28-36, 1963. See also, Nielson, G., *Studies of Self-Confrontation*, Munksgaard, Copenhagen, 1962, pp. 221 *et seq.*
77. The relevance of these "moving images" of the self to the theories of Mead, Cooley, and their contemporary "self-image" protagonists remains to be elaborated.
78. Although videotherapy technique has since come into its own, the theory seems to be emerging far slower than the process. The work of Albert Scheflen is likely soon to remedy this situation. See however, Berger, M. M. (ed.), *Videotape Techniques in Psychiatric Training and Treatment*, Brunner/Mazel, New York, 1970.

79. Eliot, T. S. (from "Burnt Norton") in *Four Quarters*, Harcourt, Brace and World, New York, 1943, p. 4.
80. Freud, S., "New Introductory Lectures," Standard Edition, *op. cit.*, vol. XXII, p. 74.
81. Galileo, *Dialogue Concerning the Two Chief World Systems*, Stillman Drake (transl.), forward by Albert Einstein. University of California Press, Berkeley, 1967.

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Notes

PHILIP SLATER, author of *In Pursuit of Loneliness*, says that "TimeForms is . . .

. . . an essential work for anyone trying to understand our era, its changes, the counterculture, the future.

. . . "Clearly, this is the direction in which the exploration of ultimate concerns must go. All events which seem mysterious to us—psychic phenomena, unexplainable forms of communication, transcendental experiences—lend themselves to explanation in temporal terms.

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