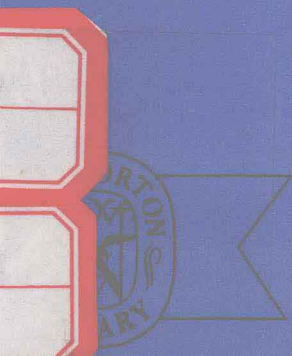


Beyond the Stable State

Donald A. Schon

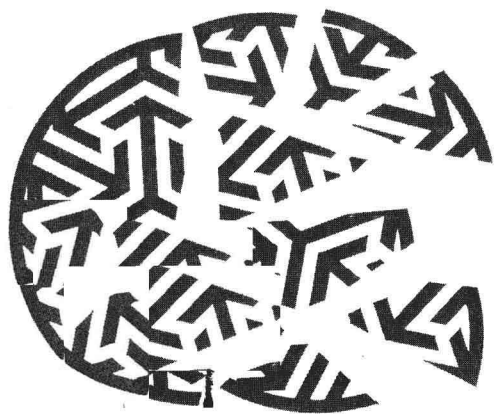
"Donald Schon is one of the nation's
most perceptive observers of the
process of technological change."

—Edwin Mansfield,
University of Pennsylvania



◆◆ Beyond the stable state

Beyond the Stable State



DONALD A. SCHON



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◆◆ Preface

This book was in the making from 1966 to 1970, four years peculiarly conducive to reflection about the Stable State, its loss, and what may lie beyond it.

During this period, I gained a great deal from several individuals and organizations. Projects undertaken with colleagues at OSTI (Organization for Social and Technical Innovation, Inc.) gave me much of the material for the book. My students at MIT's Department of Urban Studies and Planning stimulated a number of ideas and caused me to discard many more. In 1970 the BBC invited me to give the Reith Lectures, an experience which forced me to compress and, I hope, clarify the central arguments of the book. Although I have noted in the text borrowings from the thought of the late Dr Raymond M. Hainer, these convey only a small part of my great indebtedness to him. Finally, I am grateful to Harvard's Program on Technology and Society for their support of my work from 1966 to 1968.

Parts of the book have been published before: Chapter 1, in somewhat different form, was one of a collection of essays brought together in *Transcendence* (Herbert W. Richardson and Donald R. Cutler, eds, Beacon Press, Boston, 1969); versions of Chapters 3 and 4 were published in *Innovation* (No. 6, 1969); parts of Chapter 5 were originally prepared for publication by the Commission on the Year 2000; and passages on blindness were drawn from an article, 'The Blindness System', in *The Public Interest* (No. 18, Winter 1970).

January 1971

◆◆◆ 1 The loss of the stable state

I have believed for as long as I can remember in an afterlife within my own life—a calm, stable state to be reached after a time of troubles. When I was a child, that afterlife was Being Grown Up. As I have grown older, its content has become more nebulous, but the image of it stubbornly persists.

The afterlife-within-my-life is a form of belief in what I would like to call the Stable State.¹ Belief in the stable state is belief in the unchangeability, the constancy of central aspects of our lives, or belief that we can attain such a constancy. Belief in the stable state is strong and deep in us. We institutionalize it in every social domain. We do this in spite of our talk about change, our apparent acceptance of change and our approval of dynamism. Language about change is for the most part talk about very small change, trivial in relation to a massive unquestioned stability; it appears formidable to its proponents only by the peculiar optic that leads a potato chip company to see a larger bag of potato chips as a new product. Moreover, talk about change is as often as not a substitute for engaging in it.

Belief in the stable state is pervasive:

- ◆ We believe in the stability of major elements of our own identity such as our occupation or profession. 'I am a chemist,' 'I am a college professor,' 'I am a

doctor,' 'I am a cook.' We make such judgments not as tentative findings subject to change but as assertions about enduring aspects of the self. To be unable to make them, or to be ambiguous about them, is a matter for some embarrassment.

- ◆ Similarly, we believe in the stability of our own regional identity ('I come from Nebraska,' 'I am a Londoner') and of our family backgrounds ('I am a Jones.')
- ◆ We believe in the stability of the organizations and institutions in which we work ('I work for General Electric') and in the stability of our status or roles within these organizations ('I am financial director') and in the stability of the ideology associated with them ('At Harvard, we respect individual scholarship,' 'At the Lighthouse for the Blind, our concern is with human beings, not with numbers.')
- ◆ We believe in the stability of intellectual subject matters or disciplines ('My field is physics,' 'I am studying early American history.')
- ◆ We believe in the stability of certain values—for example, those associated with freedom, work, satisfaction, justice, peace, and the Technological Program, which has aimed since the eighteenth century at a kind of earthly afterlife through technological progress.

Our belief in these various stable states is not always explicit. The General Electric Company has no claim to unquestioned stability, but members of it take its stability for granted. For them the issue is simply not likely to arise, and they accept an unexamined 'as if' stability, a stability for all practical purposes.

Belief in the stable state is central because it is a bulwark against the threat of uncertainty. Given the reality of change, we can maintain belief in the stable state only

through tactics of which we are largely unaware. Consequently, our responses to attack on the stable state have been responses of desperation, largely destructive. Our need is to develop institutional structures, ways of knowing, and an ethic, for the process of change itself.

In order to explore this line of argument, we must ask,

What is the function of our belief in the stable state?

How do we maintain it?

What is the nature of the threat to it?

What are the options for response to its loss?

The function of belief in the stable state

Belief in the stable state serves primarily to protect us from apprehension of the threats inherent in change. Belief in stability is a means of maintaining stability, or at any rate the illusion of it. The more radical the prospective change, the more vigorous the defense—the more urgent the commitment to the stable state.

Crises in our lives center around periods of change or transition in which urgent questions of identity are raised. The transition from infancy to the period in which the child learns to say 'I', the beginning of school, puberty, entry into work, marriage, menopause and climacteric, retirement—these are all periods of tension and testing, more or less traumatic. Entry into and release from the army, widowhood, the 'decompression' attendant on return from public life—these are less universal transitions characterized by uneasiness or disruption.

Unexpected instability may be even more disturbing—the marriage that refuses to 'settle down'; change of career; the experience of a woman abandoned by her children; a young man, past college, still unsure of what he wants to do; a mature man, still plagued by the questions of his adolescence. In these situations, the pain of the instability is magnified by the feeling that 'I am not supposed to be experiencing this now.'

These are all experiences in which central elements of the self come into question. They provoke a transformation of the system of the self in which a new zone of stability can be attained only by passing through a zone of instability.

Comparable patterns hold for social systems, for organizations and institutions. These, too, run into zones of crisis and instability:

- ◆ The business firm, imbued with the tradition of reverence for the founder and all he stood for, forced by shifts in the market and in competition to call into question its theory of operations and its definition of itself as a business.
- ◆ The social welfare agency whose traditional clientele has gradually disappeared, leaving an institution without a function.

The crisis forces vital elements of the system to change. The change threatens disruption of the stable state whose achievement and maintenance has been central to the existence of the organization.

Social and technological systems interlock. An apparently innocuous change in technology may emerge as a serious threat to an organization because it would force it to transform its theory and structure. Technological, theoretical and social systems exist as aspects of one another; change in one provokes change in the others. And change in organizations has its impact on the person, because beliefs, values and the sense of self have their being in social systems.

In all of these domains of experience, transforming the system means passing through zones of uncertainty. I do not mean risk, the probability of some future event occurring, but the situation of being at sea, of being lost, of confronting more information than you can handle.

The situations of crisis are the ones that provoke

uncertainty. The most threatening changes are the ones that would plunge the system into uncertainty.

- ◆ I come to be truly confused over the behavior of someone who, until now, has been close to me. His act appears hostile, but may be quite different. How am I to discover? How shall I respond to him?
- ◆ A psychotherapist who has been working with a patient suddenly finds himself confronted with behavior that belies the hypothesis, the way of seeing the patient, with which he has been working—and there is, as yet, no alternative hypothesis in sight.
- ◆ A business firm begins to perceive that its product and its marketing policy are inadequate to the demands of the market. The market does not respond to the firm's tested strategies of recovery.
- ◆ A scientist, committed to a cherished hypothesis, encounters data which do not fit—and which present no clear alternative pattern.
- ◆ A scientific community—such as the community of physicists in the early years of this century, or the community of nuclear physicists in the last decade—find an entire conceptual framework inadequate to the data presented by a program of experiments which cannot be discredited or abandoned.

In these situations there is not a lack of information. There is not an 'information gap'. There is an information overload, too many signals, more than can be accounted for; and there is as yet no theory in terms of which new information can be sought or new experiments undertaken. 'Uncertainty' is a way of talking about the situation in which no plausible theory has emerged.

For this reason pragmatism² is no response. We cannot, in these situations, say 'Let us get the data,' 'Let us

experiment,' 'Let us test,' for there is as yet nothing to test. Out of the uncertainty, out of the experience of a bewildering array of information, new hypotheses must emerge—and from them, mandates for gathering data, testing, experiment, can be derived. But in the first instance they do not as yet exist, and until they exist the method of pragmatism cannot be applied. The period of uncertainty must be traversed *in order that* pragmatism may become an appropriate response.

The feeling of uncertainty is anguish. The depth of anguish increases as the threatening changes strike at more central regions of the self. In the last analysis, the degree of threat presented by a change depends on its connection to self-identity.³ Against all of this we have erected our belief in the stable state.

Tactics for maintenance of belief in the stable state

It is not only in our own time that belief in the stable state has come under attack. Whether we are concerned with perception, personal experience, or the life of organizations and communities, the norm has been flux and variety. Surprises are constantly occurring. In American experience, for example, we seem always to have been in process of change and to have believed in the value of change, and we seem never to have had a national stable state. What is curious is not that we are forced at intervals to abandon some stable state, but that we manage to maintain belief in it in the first place.

The process by which we do so is not passive or inertial but an active and more or less systematic resistance which employs a variety of strategies:

- ◆ We are selectively inattentive to the data that would upset our current ways of looking at things. It is characteristic of every discovery, in whatever domain, that we are astonished at not having seen it earlier.

- ◆ We manage a kind of internal economy in which changes in one domain find compensatory stability in others. The private lives of inventors, innovators, artists and discoverers tend to be regular to the point of dull routine.
- ◆ We undertake a continuous and active program to maintain the system in which we are involved—whether it is the system of the firm, the family, or the self. We keep it in being in the sort of way that a living organism preserves itself by homeostasis. This often takes the form of hostile resistance, overt or underground, to whatever threatens to break up the stable system. Where we cannot help but perceive the change, we strive actively to contain or suppress it. Instances are to be found in the patient's resistance to psychotherapy, the neighborhood's expulsion of troublesome outsiders, the business firm's elaboration of systems to control innovations, the governmental bureaucracies' magnificent semi-conscious system for the long-term wearing down of agents of change.

The effort spent in all of these manoeuvres may be as unconscious as the effort of keeping balance in a small boat.

The nature of the threat to the stable state

In our own time the attack on the stable state has passed beyond what our strategies of resistance can contain. Throughout our society we are experiencing the actual or threatened dissolution of stable organizations and institutions, anchors for personal identity and systems of values. Most important, the stable state itself is becoming less real.

During the last thirty years or so, the United States has experienced three distinct but interacting currents of social change.

- ◆ A growing awareness and intolerance of the imbalance in our society between the production of consumer goods, to which the major thrust of the economy has been devoted, and the critical public systems such as transportation, housing, education, and waste disposal, which have taken a poor second place.

Even though public problems have not necessarily been more severe in the last ten years than in the last fifty, a rising intolerance of this imbalance has pervaded recent presidential administrations. The warcry of awareness came in 1957 with the publication of John Kenneth Galbraith's book *The Affluent Society*.

- ◆ A growing dissatisfaction with the relatively powerless position in American society of many minorities—not only racial (although the demand for decolonization of black society in America has been by far the most visible) but more broadly, the poor, rural families, the aged, the sick, prisoners, the mentally ill.

It is as though we were now experiencing, across the board, a demand that the balance of power should be righted. This is not merely a demand for 'our share' (as in the programs of the New and Fair Deals). It includes demands for participation, decentralization, local control, autonomy, that in recent years have taken on revolutionary proportions.

- ◆ A growing disenchantment, expressed most vigorously by the young, with the goals and values of Social Progress, as these have remained relatively intact since the eighteenth century.

Instead, there is an impetus toward what Kenneth Keniston has called the New Revolution—a revolution against economic materialism, uni-