

UNCERTAINTY AS A ROOT METAPHOR IN SOCIAL SCIENCE

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INTRODUCTION

. Practical people concerned with the shape of our times agree on one fact: We are living in an age of uncertainty. The knowledge explosion paradoxically has helped us to realize the limit of expecting the future to unfold as a neat consequence of the present. Whether we think of latent functions, intervening variables, chance factors, contingencies, or subconscious urges, the underlying uncertainty is the same. It is a central factor in the social sciences of the 1980's, both as a sociological construct in which changes in the social and physical environment are unpredictably accelerating, and as a psychological construct denoting one's perception of randomness with consequent stress and anxiety.

. The centrality of uncertainty resides less in the scientific utility of the construct than in its reflection of the daily problems facing the ordinary citizen. Uncertainty is a rough-and-ready construct which is hard to measure and define. Uncertainty refers at the same time to the stimulus field and to the behavior consequences of perceiving randomness in the stimulus field. Uncertainty is also a value-laden term. To information scientists, it means lack of information. It smacks of the journalist's pejorative sense of the term silent majority, with the negative image of immobile, paralyzed masses of people in a society that prizes action.

. Despite these pitfalls, the ideas germane to the age of uncertainty merit the attention of social science because it is a clear self-conscious reflection of today's conventional wisdom. It is this everyday wisdom that the ethnomethodologists and those working in the sociology of knowledge see as a vital element in understanding social behavior (Homans 1961; Garfinkel 1967; Cicourel 1974). I share their belief that to comprehend humans we must understand

how they see themselves and the world. This premise holds a delectably intuitive appeal on the microanalytic level, and is vital in comprehending entire societies on a macro level.

THE AGE OF UNCERTAINTY

. The idea of uncertainty holds the core of common sense beliefs about our age. It is an ever-present phenomenon which remained on the periphery of our social awareness until the 1970's. Uncertainty has been used to depict social actors who have lost, forfeited, or been robbed of the locus of their control. Social scientists, from structural functionalists to Marxists, describe people living uncertain lives as social marginals. The uncertain ones, until the present decade, were depicted as outsiders, who, like Simmel's strangers, stumbled into situations unarmed with adequate information. Presently, the core of our society is characterized by the existential conditions we associate with uncertainty.

. The centrality of this self-conscious uncertainty appears in drug store futurology, and reports on the economic climate. Drug store futurology addresses the paralysis of the individual in social groups and social systems ensuing from accelerating social and technical change. The economist, Galbraith, explained the centrality of uncertainty: "The title, An Age of Uncertainty .. suggested the basic theme; we would contrast the great certainties of economic thought in the past centuries with the great uncertainties with which problems are found in our times." (Galbraith 1977 7) Galbraith is not alone in depicting the withering away of the old certainties (Mack 1971; Garner 1962; Strangert 1977). In the science of physics, Heisenberg's uncertainty principle raises razor sharp doubts at the roots of empirical measurement. In chemistry and biology, studies with radioactive materials

provide new elements of uncertainty in the relatively certain exact sciences. "The new intellectual phase is not one of a new irrationalism or anti-intellectualism, but a concentrated recognition by the educated citizen and the scientific community that the rational is at times uncertain." (Hartshorne 1968 258)

EXPLAINING UNCERTAINTY

. In sociology, uncertainty refers to the perceived randomness of social and physical environments. Psychologically it refers to the behavioral consequences of these perceptions. Each perspective generates a tautological explanation. In an insular social perspective, uncertainty is a consequence of uneven and accelerating social change, but uncertainty and social change are mutually defined. The psychological perspective in isolation is no better, since one is psychologically uncertain when manifesting behavior labeled uncertain.

. The historical framework is best suited to developing an evolutionary perspective. It facilitates understanding of what I call the paradox of rationality. As we move from the simple to the complex, we are compelled to plan and organize the world. The sociological perspective on uncertainty bears the brunt of a century of doubting insistence that we can fashion society to our desire and design. The psychological perspective on uncertainty bears the scars of tension between our optimistic evolutionary emphasis on rationalism and the daily struggle to find warmth, identity, and growth in a precarious and complex social environment.

. The idea explicit with Darwin, that of successive and continuous adaptation of species to environments, has been applied to humans as social and biological beings. Evolution is a continuing adaptation of humanity to the environment. In the case of homo sapiens, due to a higher form of consciousness and the opposed flexible thumb, the environment to

which we adapt is increasingly fashioned by our own hands.

. This is the stuff both of history and everyday expectations. The primitive social setting, like that of the folk society and its precursors, evolve to the complexities of the mass society, from village to megapolis, and the family business to a multinational corporation. This adaptive, progressive perspective initially based on human survival, has become a universal article of faith. It is difficult to convince theory students that learning is not necessarily adaptive nor progressive. One can learn maladaptations, but students, assume that by definition, learning, like evolving, is automatic.

. The expectation that the future is a more progressive version of the present is at the core of the historical problem that gives rise to today's uncertainty. It begins with an expectation that the future will be more complex, more controllable, and more rational. We become disappointed because orderliness and security are elusive. We expect complexity founded on rationality to deliver certainty and security. Instead, we create complexity, begin to doubt rationality, and discover growing uncertainty and insecurity.

. The typical treatment of the centrality of uncertainty in modern life glosses the question. The response requires one to supplement the evolutionary historical perspective with a sociological orientation. The sociological quest for social laws and patterns of behavior has transmitted the paradox of rationality to the average citizen of advanced industrial societies. Weber's analysis of bureaucracy is an instance of the sociological perspective on rationality. His ambivalent attitude toward the increasing complexity, specialization, and efficiency of man's organizations foreshadows the logic implicit in the citizen's attitude toward the world.

. To Marx, the dialectic of history was clearly grounded in the inequities of class. In Weber, the

enemy is more insidious than the powerful institution of capitalist ownership. To Weber, the enemy is also a blessing. It is the human's constant striving to make more efficient the tools of rationality. The injury stems from the ongoing displacement of goals by means. In bureaucracy, the quest for efficiency and a serene milieu for humans to organize their energies helps to produce a society which is uncertain of its own humanity. To Weber, this is a society increasingly rational but one plagued with incessant uncertainty.

. The sociological community, in flirting with general systems theory, has helped to modify the progressivist flavor of social evolution with entropic assumptions. Entropy is the tendency of any system to disintegrate over time.

. The 1970's erupted with the possibility of the common human grappling with holes in evolutionary assumptions. The common human is increasingly educated to skepticism, and is trained to look beneath the appearance, like the sociologist, and to consider the nature of the shadow. The symbols of modern life raise the issues. While we build increasingly technical environments, our art becomes a wavering shadow of perceived reality. While we construct and plan a finely organized society, unpredictability increases. The greatest disturbance occurs when the voices of rational-legal authority can no more discern the correct policy than you or I.

. This sociological image refers to a world in which the rational need not lead to a greater certainty. Assumptions of progressive and incremental evolution are open to entropic theory. Many are caught and live between the live tensions of the world as expected and the world as experienced. We are taught to expect orderliness of our early moral education to adhere to the world of experience.

We are taught that the peace of mind in certainty is achieved if we plan our lives rationally. The safety of deferred gratification, caution, and the golden mean, all

paragons of middle-class virtue, are held high as signs leading to the security of certainty.

. We are taught that we live in a world which we create. Those who plan wisely live well, and as ability to plan increases, so does certainty and security. Failure to plan wisely leads to uncertainty. But the lesson flies in the face of our present psychological climate. We create instant millionaires by institutional lotteries. We emphasize youth and spontaneity as attributes of the good life. We fear the programmed and mechanized utopias created from the web of our ideals.

. But the old certainties are withering, and few people seem to know the answers to today's problems. The mounting skepticism of the common human is borne out of a growing awareness that the conventional wisdom of everyday life does not satisfy the test of experience. The more attractive bet in an age of uncertainty is often the long shot, but the long shots exacerbate the feeling of uncertainty.

SOCIAL SCIENCE AT THE CROSSROADS

. The age of uncertainty is a root metaphor. It creates a meaning structure that permits us to conjure up images of problems that demand resolution. We must be aware of the steady tradition in social science which cries "Crisis!" when these new disciplines adjust to changes in cultural temper.

. There are 3 issues of growing relevance: 1) the control problem; 2) the controversy between the prophetic and the objectivist modes of research; and 3) the debate between the gradualists and the proponents of the apocalypse. These issues are minor in times of certainty and confidence, but they become central and mainstream in an age of uncertainty.

. Snow's two-culture thesis echoes tensions implicit in the control problem. Snow believes that multiple languages impede progress. The pursuit of understanding is impeded by the simple fact that

the two key pursuants, the artist and the scientist, conceive the task differently, and insist on different modes of discourse. In turbulent times, the rift deepens, and each in his/her special language, misaddresses or avoids dialogue with the other. Under uncertainty, the result is a truncated pursuit of understanding, in which intuition is divorced from analysis, and in which associative reasoning is divorced from linear analysis.

. The problem of the artist and the scientist takes form in the social sciences, where the mandate has always been ambiguous. Does mastery of social science permit the artist accurately to depict the social system, or does it permit the scientist to control and direct the social system? We acknowledge the problem, but not the mutually exclusive nature of the terms depict and control. As products of the educational enlightenment, we hold that good social science must accurately describe the system under analysis. This enables the scientist to help in the control of the social system through accurate information.

. This integrative solution becomes unbound in an age of uncertainty, because synthesis of depiction and control depends on perceiving a social system which can be described in terms permitting control. When this becomes unlikely, as it is in an age of uncertainty, then the social scientist must choose between the artist and the scientist.

. A second controversy is that between the prophetic and the objectivist mode of research. It follows on the social scientist's choice of the artist or scientist, in resolving the depiction and control problem. In times of relative certainty social scientists claim objectivity as the correct orientation to research. The canons of science require that the social scientist should seek out what is, and not merely what is desired or presumed. Removal of desire is essential to avoiding bias and error. This requires a personal

orientation based on a secure and predictable world. In an uncertain world, the scientist finds it difficult to eradicate bias, and to persuade others of one's objectivity.

. The prophetic mode of research becomes dominant in the social sciences in times of historical, social, and psychological turbulence. In the prophetic mode, the social scientists feel that social facts do not permit an interpretation which quiets the researcher's doubt. Depiction and control become disjointed, and the search for a credible social science shifts to new grounds. Here, the prophetic mode of research draws on the authority of those who claim to see farther than their colleagues. The claim in prophetic social science may be based on: 1) the avowed sophistication of new methods or theories within existing disciplines; 2) the charisma of persons claiming experiences with the gift of vision; 3) an aggregate of social scientists claiming collective wisdom.

. The gradualist, like the evolutionist, views the unsettling consequences of uncertainty as similar to the anomic conditions in the social system. The gradualists sees uncertainty as a momentary pause in what is essentially a positive history. The gradualist is an incrementalist. The age of uncertainty is not a pressing omen of social rupture, but is seen as a lesson to facilitate adapting to a complex world.

. The apocalyptic mode of research tries to disclose a message for either the construction or the emergence of a new social order. The apocalyptic theorist is a shaman who sees that the uncertainty sensed in daily experience has a higher meaning, a sense of a new, emergent order, and the seeds of a new era.

CONCLUSION The root metaphor of the age of uncertainty implies a creative social science. The crux of creativity is choice. Critically speaking, the urge to control and (Concluded on page 38)

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WEXLER Continued from page 34. the objective and gradualist approach to science is essential. But it must be wedded to a depictive, prophetic, and apocalyptic set of voices if the social sciences are to create, rather than discover social reality.

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