Web Site Note:-

This is the new Introduction to 'Steps to an Ecology of Mind' written by Mary Catherine Bateson for the impending re-publication of Gregory Bateson's book by the University of Chicago, due for release in the year 2000. It is many years since the book was available in English, as we can see also by the increasing frequency of requests from all over the world to this web site for help in tracking down the odd available copy here and there. So it is with a great pleasure that I can announce this imminent new edition of one of Gregory Bateson's most important texts, and at the same time thank Catherine Bateson very much for sending me her fresh introduction to the book which I reproduce below.

Vincent Kenny October 10, 1999.

STEPS TO AN ECOLOGY OF MIND by Gregory Bateson.

FOREWORD to the new University of Chicago Edition (2000)

by Mary Catherine Bateson

This book is the record of an intellectual journey. Steps. One step at a time. The destination, a new science, was just becoming clear as it went to press in 1971. Gregory Bateson died in 1980 but the intellectual journey continues, with increasing urgency, and needed clues to the understanding of patterns of relationship are still to be discovered in these texts.

Some of the most impressive achievements of the last years of the twentieth century may indeed have obscured understanding. The extraordinary and detailed work of mapping the human genome, for instance, makes it easy to forget that the individual phenotype is formed by the interaction of genetic factors, not by any of them in isolation; and all of them are expressed in a complex dance with the surrounding environment, air and earth and other organisms. Even with current progress in chaos and complexity theory, we remain less skilled at thinking about interactions than we are at thinking about entities, things. We know far more about how computers can be designed to compute and about the structure and biochemistry of the organ called the brain than we did when Gregory was writing, but this has led to a kind of triumphalism, as if such research would eventually explain the creative imagination.

Gregory Bateson was oriented from birth toward science. David Lipset's biography (1980) is at its best in describing his early years, good for his middle years, and thin for the last decade of his life, when Lipset began to move away from a narrative he had begun to write in 1972. Gregory grew up in a household focused on natural history and biology, most especially on the debates surrounding evolution and genetics. His choice of anthropology as a field of study moved him away from the immediate family tradition, but not so far as to be estranged from it.

During the period before World War II, he did ethnographic research in New Guinea and in Bali. After the war, however, his intellectual path did not fit neatly within any familiar discipline. He collaborated with Jurgen Ruesch on Communication: The Social Matrix of Psychiatry (1951), he worked with mental patients in a Veterans Administration Hospital in Palo Alto under the anomalously created job title of "ethnologist." And he was a participant in the formative discussions of cybernetics, sponsored by the Macy Foundation. It was not clear for many years, even to Gregory, that his disparate, elegantly crafted and argued essays, the "steps" of this title, were about a single subject, but by the time he began to assemble the articles for this book, he was able to characterize that subject, the destination of forty years of exploration, as "an ecology of mind." The remaining decade of his career was spent describing and refining his understanding of that destination and trying to pass it on.

The essays in this volume were written for different audiences and published in different settings, some of them becoming famous among groups of readers encountering them in other contexts, who never made the connections between them. In the same way, many anthropologists read the book that came out of his work in New Guinea (Naven, 1936, which remains a classic) struggling with the line of thinking represented here by "Experiments in thinking about observed ethnological material,"(1941, p.73), but for a long time they did so without reading and making the connections to Gregory's writings about psychological and biological subjects, and vice versa. They knew him as a pioneer of visual anthropology from his joint book with Margaret Mead (1942), while a separate professional community knew him as a pioneer of family therapy. Each group of specialists was inclined to view work that did not fit into their framework as a diversion - or even as a disloyalty. Experts on whales and dolphins read "Problems in Cetacean and Other Mammalian Communication" (p.364) and experts on alcoholism read "The Cybernetics of 'Self': A Theory of Alcoholism" (p.309) to illuminate their own narrowly defined subject matters without fully realizing that these were examples of wider concerns.

Until the publication of Steps, Gregory must have given the impression, even to his strongest admirers, of taking up and then abandoning a series of different disciplines; sometimes, indeed, he must have felt he had failed in discipline after discipline. Lacking a clear professional identity, he lacked a comfortable professional base and a secure income. He had also become an outsider in other ways. Having been deeply committed to the necessity of defeating Germany and its allies at the beginning of World War II, he had become convinced of the dangers of good intentions. The efforts to oppose the pathologies of Nazism and Fascism, which grew out of the distortions of Versailles, had in turn created new pathologies that were played out in the McCarthy era and the Cold War, and continue into the 21st century. In his post-war work on psychiatry and interpersonal communication as well, he began to see that efforts to heal could themselves be pathogenic. His was, for many years, a lonely and discouraging journey, characterized by a distinctive way of thinking rather than a specific concrete subject matter. It is no accident that a group of the father-daughter conversations he called "metalogues," especially those written in the 50s, stand at the beginning of this volume: Daughter is uncorrupted by academic labelling and becomes Father's excuse to approach profound issues outside of their boundaries. Most of these were published in journals of the General Semantics movement, which, like cybernetics, offered an interdisciplinary setting for discussing processes of communication.

It was not until the decade of the sixties that the stage was set for an integration of the different strands of Gregory's work. As the environmental movement began to take shape, it re-evoked his roots in biology. One of the latest pieces included here, "A Re-examination of Bateson's Rule," was a recycling of his father's observation in the context of his own evolving understanding. As the antiwar movement grew, it recalled earlier concerns about the systemic characteristics of warfare. After a long preoccupation with pathologies, framing these different topics in terms of systems theory required a vision of the health of whole systems as well, which was to become a central task. At the same time, a new generation of students were ready to move across disciplinary boundaries and to think in new ways, some with a kind of daffy euphoria and others with a courage and precision that echoed Gregory's own, bringing with them a passion for social engagement. By the mid sixties, his papers take shape as criticisms of the direction of human societies. In 1968, at the end of the decade, he was ready to convene an interdisciplinary conference, bringing together thinkers from different stations on his own journey (see M.C. Bateson, 1972). The title of the conference, "Effects of Conscious Purpose on Human Adaptation" (and of his position paper published here in full, p.440) echoes and counterpoints the title of this volume: each examines the patterns of mental phenomena and the world of ideas in a biological context. Behind both of these titles lay his emerging concern for integrative changes that would offer the possibility of ongoing systemic health. Part VI of this volume, and much of Part V, present the Gregory Bateson of the sixties, focusing the lens of epistemology on the issues of ecology and societal decision making.

The final paper in this volume, "Ecology and Flexibility in Urban Civilization," (p.494) begins with the assertion that a healthy "single system of environment combined with high human civilization (is one) in which the flexibility of the civilization shall match that of the environment to create an ongoing complex system, open-ended for slow change of even basic ...characteristics (p.494)." Ironically, this was a position paper written for a conference for planners in the office of John Lindsay, then mayor of New York City, a context in which extreme constraint combined with runaway change and the distinctive blindness and inflexibility of the political process. As he emphasized again and again, the process of systemic adjustment would require self observation and self knowledge.

Gregory had a scant decade left before his death in 1980 to map the new discipline and to spell out the relationships between disciplines and between areas of his own thinking that are still conveyed by juxtaposition

in this anthology. During this latter period, he wrote a few more papers designed for presentation to specialists, of the kind that make up the core of Steps (see for instance "Some Components of Socialization for Trance" in Donaldson 1991). He gave a great many lectures, often to popular or student audiences, in which he echoed, in a different way, the pattern of Steps which is to say that, by giving a portion of his own intellectual autobiography, two or three key moments of patterning recognized, he endeavored to lead readers along the path to his conclusions. The best of his free-standing pieces as well as some older pieces, along with a definitive bibliography that replaces the one originally included in Steps (which has therefore been omitted in this edition) were collected in Sacred Unity: Further Steps to an Ecology of Mind by Rodney Donaldson (1991). He participated in two volumes designed to contextualize his work (Brockman 1977 and Wilder and Weakland 1981). And he set out to write two more books that would advance the discipline of "ecology of mind" as it had emerged from his life work.

The first of these, Mind and Nature: A Necessary Unity, (1979) is the most readable of Gregory's books. Because it was not written for a particular professional community, it avoids arcane references and unfamiliar vocabulary and contains a glossary of Gregory's distinctive usages. Bateson argued that the ecology of mind is an ecology of pattern, information, and ideas that happen to be embodied in things -- material forms. A science which limits itself to counting and weighing these embodiments is likely to arrive at a very distorted understanding. Gregory had begun to characterize what he meant by a mind (or mental system) in "Pathologies of Epistemology" (p.482), where it was already clear that a mental system was for Gregory one with a capacity to process and respond to information in self corrective ways, a characteristic of living systems from cells to forests to civilizations. Now he developed that characterization into a list of defining criteria for mind. It becomes clear that a mind is composed of multiple material parts the arrangements of which allow for process and pattern. Mind is thus not separable from its material base and traditional dualisms separating mind from body or mind from matter are erroneous. A mind can include nonliving elements as well as multiple organisms, may function for brief as well as extended periods, is not necessarily defined by a boundary such as an envelope of skin, and consciousness, if present at all, is always only partial. This emphasis on mental systems as including more than single organisms leads Gregory to the insistence that the unit of survival is always organism and environment.

Having described mental systems, Gregory is able to lay out a number of other characteristics. He elaborates the notion that, in the world of mental process, difference is the analog of cause ("difference that makes a difference") and argues that embedded and interacting systems have a capacity to select pattern from random elements, as happens in evolution and in learning which Gregory calls the "two great stochastic processes." He explores the way analogy underlies all "patterns which connect," and develops a typology of habitual errors in ways of thinking, some minor, some potentially lethal.

The second book Gregory had planned, Angels Fear (short for "Where Angels Fear to Tread"), was a pile of unintegrated drafts and manuscript sections at the time of his death, which, at his request, I put together with supplementary material to produce a co-authored book (G. Bateson and M.C. Bateson, 1987). The themes that Gregory felt were so daunting even to angels were those of aesthetics and religion, beauty and the sacred, largely because of the double pressures of materialism and supernaturalism. Gregory traced destructive human actions to inappropriate descriptions and argued that "what we believe ourselves to be should be compatible with what we believe of the world around us,"(Ibid, p.177), and yet knowledge and belief involve deep chasms of unknowing. He was convinced, however, that responses of awe and recognition involved responses to pattern -- a kind of knowing -- leading to respect for the systemic integrity of nature, in which we are all, plants and animals alike, part of each other's environment.

There is a tendency today to encapsulate the conclusions of thinkers in neat summaries, like those in Cliffs Notes and textbooks, a tendency that might be described as intellectual development by caricature. There is a fluidity and a playfulness in Gregory's later writing that resists this process, although many of the ideas appeared after his death in other places, as part of the packages labelled as post-modernism or social constructionism, autopoiesis or second order cybernetics. The danger in brand-labelling schools of thought is that we rarely go back to the original texts to discover the riches that are not captured by the summaries. Dipping back into Steps today, however, I find the threads of connection to my own more recent work revealed and clarified. The importance of diversity in maintaining flexibility (and resilience), the search for basic continuities that support adaptation, including learning how to learn from change and cultural disparity, these are themes that come directly out of Gregory's work. Another is the importance of story as a form of thought. I find that many formulations that are popular today but were unknown when Gregory was writing, such as sustainability, are illuminated by his writings, both in their significance and their vulnerability to distortion.

Lipset (1980, p.xii) commented that Gregory was "...a doubly anachronistic man, who was both ahead of and behind his times." He was behind his times, especially in his last decade, in that he was not absorbing the latest advances in related fields. On the other hand, a rereading at the beginning of a new century suggests that in many ways he remains ahead of contemporary thinking, his insights not yet fully absorbed. This is a book full of difficult ideas that are found nowhere else and playful ones that evoke new thinking. Reading it for the first time is vertiginous, challenging familiar habits of thought. Rereading it is surprising, revealing new layers of meaning. We have gained a new self-consciousness about epistemological issues but we remain puzzled about the nature of ecological health for our civilization and haunted by the many efforts at correction that have made matters worse. Population growth has slowed but it still continues, while the environmental impact of each added individual is increasing. A few kinds of environmental degradation have been headed off. School children are passionate about whales and tigers but the loss of species and habitat goes on. The Cold War has ended but warfare continues, proving old diagnoses wrong and old remedies ineffective. Even as economic disparity is increasing, competition is urged with fundamentalist fervor as the single solution to all problems. Ecological health continues to elude us and perhaps indeed depends upon the reconstruction of patterns of thought. It is hoped that the republication of Steps, which was delayed by problems concerning publishing rights, will lead to the republication of Bateson's later works describing his mature science.

Over time, various decisions have had to be made about Gregory's intellectual legacy, balancing the effort to achieve wider accessibility and authority against his own preferences, expressed for instance in the design of conferences. One of these has been to respect and preserve its interdisciplinary character to maintain the ecology of ideas that he chose himself. In this volume he divided his papers into broad categories so readers could follow a particular train of thought and then move on to follow another strand. Donaldson has adhered to the same kind of ground plan in Sacred Unity. Projects to deconstruct the thought of Gregory Bateson and publish it in convenient disciplinary packages for psychologists or systems theorists or anthropologists seem likely to reinforce existing blindness.

Within the ground plan of Steps, the ordering was basically chronological, for the structure of Gregory's thought clearly reflected a pattern of organic growth and development. Like an organism, it is differentiated into parts or organs with different functions, each of which has emerged (or withered) over time in an epigenetic sequence. Some readers feel that the underlying intellectual pattern has been there from his earliest publications or from those they first encountered. Others, of whom I am one, see continuity but also significant development, the incorporation of new ideas into an emergent order. Gregory himself drew repeatedly on the history of his own learning in communicating his ideas. There is a challenge here for every reader to study these articles reflectively, seeking the insights about to emerge. Mind and Nature is most satisfying to those readers who seek Bateson's own synthesis; Steps and the posthumous publications are tempting to those who enjoy catching him at the moment of tentative insight and making their own syntheses.

Among Bateson scholars, Peter Harries-Jones (1995)is notable for looking at Gregory's "ecology of mind" in the context of his mature work, using terms for it associated with that period, "recursive epistemology" or "ecological epistemology." The processes with which Gregory was concerned were essentially processes of knowing: perception, communication, coding and translation. Ergo epistemology. But basic to this epistemology was the differentiation of logical levels, including the relationship between the knower and the known, ergo a recursive epistemology. Ideally, the relationship between the patterns of the biological world and our understanding of it would be one of congruence, of fit, a broader and more pervasive similarity than the ability to predict in experimental contexts that depend upon simplification and selective attention. It seems useful to refer to Gregory's ecology of mind as an epistemological ecology to contrast it with the largely materialistic ecology of academic departments. It seems essential to underline that recursiveness is a necessary feature of such an epistemology (and perhaps of every epistemology, since every effort to know about knowing involves the cat trying to swallow its own tail).

Bateson was haunted in his last years by a sense of urgency, a sense that the narrow definition of human purposes, reinforced by technology, would lead to irreversible disasters, and that only a better epistemology could save us. Certainly irreversibilities lie all around us, many, like global warming, the decay of the ozone layer, and the movement of poisons through global food chains, set on courses it is too late to change although we have yet to suffer their full effect. Still, the situation has not worsened as rapidly as he predicted and perhaps he sometimes succumbed to the lure of dramatizing a message in order to get it across in ways that later undermine that message. But the habits of mind that he described can be seen in every newspaper or newscast: the search for short term solutions that worsen the problem over time (often by mirroring it, such as violence

used to oppose violence); the focus on individual persons or organisms or even species, seen in isolation; the tendency to let technological possibility or economic indicators replace reflection; the effort to maximize single variables (like profit) rather than optimizing the relationship among a complex set of variables.

The essays in this volume and in the publications that followed it suggest a trajectory. What is important is to begin to move with that trajectory, to empathize with it, in order to move beyond it, so the next step becomes obvious. Scholarly analysis of the work of Gregory Bateson is only a fraction of the task, for analysis has always been a means of control. It is more important now to respond. Following Gregory in his development is probably the best way to prepare for the steps that still need to be taken, the moments of imaginative recognition that lie ahead.

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