

1996-97 AN Theme: The Known, Unknown and Unknowable in Anthropology

Espying the Limits of Human Knowledge

James M Donovan (Law Library, Tulane)

For us to know, in the ordinary and more exacting sense, it is not enough merely to feel absolutely certain and to act accordingly. It is necessary also for your belief to be in fact right, and for you to have sufficient reason to warrant your confidence. . . . The man who "knows" but who "knows" wrong, or the woman who "knows" but is unable to produce any grounds for her conviction, does not, in this ordinarily exacting sense, know at all. [Anthony Flew, *God: A Critical Enquiry*, 1984]

When considering what is known, unknown and unknowable within anthropology, it is best to briefly clarify what it means to "know" at all. Philosopher Anthony Flew's definition shall be the standard used throughout these comments. To claim to "know" something, we must (1) know that we know it; (2) know why we know it; and (3) know (and not hope or believe) that it is true. Anything less must be regarded as an opinion, however well-informed that opinion may be.

Historical Unknowables

Usual examples of anthropological "unknowables" typically refer to gaps in the historical record. Records were not kept, for instance, of the first emergence of language; so we cannot ever know, in Flew's sense, precisely how, when, why or in what form language first emerged in our species. All the examples of unknowables given by Bernard Siegel in his introductory essay to this year's theme (October 1996 AN, p 1) are of this type.

Limiting the unknowable to historical lacunae preserves the Enlightenment optimism about what *could* theoretically be known if only we had a better database. We will remain ignorant about the

origins of language not because origins are inherently intractable but because we just didn't happen to be there taking notes. As it is, we can still talk about such origins, hypothesize about them, rule out unlikely scenarios and generally get a "feel" for what those origins may have been, all without technically being able to claim to "know" anything about them at all—again, in Flew's sense.

Finally, optimists can envision a day when physics will perfect the time machine to permit us to rectify these gaps, thereby making what was once "unknowable" simply another known.

Boundary Conditions to Knowledge

There are qualitatively different kinds of unknowables, which are far more stubborn. These arise not from accidents of record keeping but from the nature of reality, both of the world and ourselves. There are, in other words, *limits* to what we can know: anything that passes beyond these boundaries is inherently unknowable and will forever be so. Four such limits can be briefly indicated here.

Diachronic Limitations. Chaos theory has shown that long-term predictability is impossible for most cases. This shortcoming is not, as has been often held, the mere practical outcome of insufficient data. Complete knowledge of a system in time A would still preclude knowledge of its state in time B unless that knowledge is increasingly precise as B moves farther away from A. (We should note that this complete knowledge is itself ruled out by the indeterminacy principle from quantum physics.)

Systems like the weather display a chaotic "sensitive dependence on initial conditions" or the "butterfly effect," whereby the flutter of a butterfly's wings in China can cause a hurricane in the US. Because of chaos, we can predict somewhat the weather for tomorrow, much less so for next week, but not at all for

next month. In human behavior, this "sensitive dependence on initial conditions" is revealed in stories that feature the wide-eyed observation such that if the informant hadn't gone into that store on a sudden whim, she would never have met the person destined to be her life mate. This limit on human knowledge can be termed the diachronic.

Synchronic Limitations. The process of inference imposes a synchronic limitation on what we can claim to know. Experimentation at best allows one to reject the null hypothesis of equivalence between two or more sets of variables. Failure to reject the null hypothesis *never* permits one to accept that nullity. The conscientious researcher can never conclude that X and Y are equivalent (assuming the appropriate null hypothesis) but only that he does not know them to be significantly different. The possibility will always exist that at some future time, using improved instrumentalization or examining different variables, that the null hypothesis will be rejected. In the strict sense, we can never claim to know that truth value of a null hypothesis, even though we function *as if* we did. By consequence, we "know" more about what is not the case, than what is.

Systematic Closure. A third dimension of limits to human knowledge, systematic closure is based on Kurt Gödel's demonstration of a

fundamental limitation in the power of the axiomatic method. Gödel shows that *Principia*, or any other system within which arithmetic can be developed, is *essentially incomplete*. In other words, given any consistent set of arithmetical axioms, there are true arithmetical statements that cannot be derived from the set. [E Nagel and J R Newman, *Gödel's Proof*, 1958]

To the extent that anthropology aspires to the logical rigor that characterizes mathematics (and I number myself among those who view this aspiration a good and desirable thing), we must accept as true propositions for which we cannot demonstrate that truth. Thus, we cannot "know" such statements in Flew's sense. A possible statement of this kind in anthropology is the presumption of the psychic unity of humankind. That such unity exists is an unproven and unprovable assertion without which ethnography would be impossible. Since one cannot look for deviation without a standard against which to compare, any attempt to test the thesis of psychic unity necessarily presupposes psychic unity. We can never, consequently, prove that psychic unity is true, and hence cannot "know" it.

Structural Limitations. The final limit on human knowledge derives from the structural constraints placed on the mind by its compartmental modularity. Jerry Fodor has argued convincingly that cognition is based not on an omnipotent mind but rather on separate modules, of which vision is the best example. Modules are characterized by being domain-specific, mandatory, fast, informationally encapsulated, associated with fixed neural architecture, allowing limited central access, having shallow outputs, and exhibiting specific breakdown patterns and characteristic pace and sequencing. Assuming modularity to be the case, these systems "are, by definition, special purpose computational mechanisms. If the mind is a collection of such mechanisms, then there are presumably going to be at least some purposes for which the mind isn't fit" (*The Modularity of Mind*, 1983). There are, Fodor claims, "endoge-

nously determined constraints on our mental capacities such that the best science—the true theory of the structure of the world—is not one of the theories that we are capable of entertaining." Humans are thus epistemically bounded. Just as we all concede that true science is inaccessible to the spider, so too might it be beyond our conceptualization: "Perhaps solving the riddle of the universe requires one more neuron than, de facto, anyone will ever have." Our failure to adequately conceptualize concepts such as "god," or to verbalize our experiences of transcendence, may well be more reflective of our innate cognitive limitations than on the truth or veracity of such ideas and reports as they are given us by our informants.

Respecting Our Limits

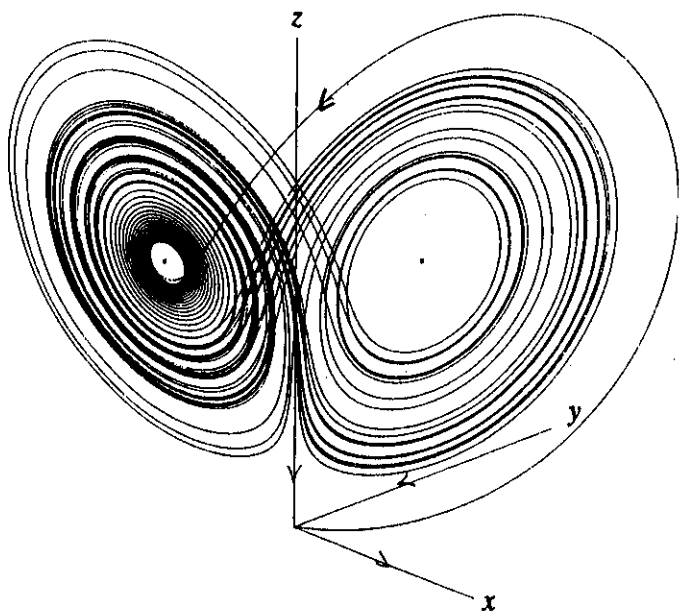
If historical gaps highlight the potholes *within* our disciplinary corpus, the 4 other limits identify the asymptotic boundaries of that corpus: boundaries we can infinitely approach but never reach.

These limits reveal themselves most obviously when the anthropological subject matter is also about limits and universals. Anthropology of religion, for instance, makes several assumptions about the nature of reality, such as "spirits do not exist." If spirits existed, we would need only to record, but not interpret informant accounts of supernatural events. Can we defend our atheistic methodologies? The boundary conditions described suggest that the task would be much more difficult than most people assume. Just as difficult would be to justify the theistic assertions of those informants. Perhaps that is why the question is often ignored altogether. A humble agnosticism, in an intellectual environment that thrives on polemics, would seem almost anticlimactic.

Whatever the subject matter, an awareness of these limits to human knowledge should inspire a new humility about what we can know, and even about the quality of what we do know. That awareness should, in turn, make us more tolerant of contradictory viewpoints: if we know there exists no "gospel," we cannot claim to have it and thus should listen more closely to what others have to say. But this is not to say that we know nothing at all; in fact, we know a great deal. Just not everything, even in theory.

Examination of the unknowables, then, is not to poke about within a residual, trash-can category. Rather, to grasp the unknowables and why they are truly unknowable is to come to new insight about the nature of men and women. And that is anthropology at its most fundamental.

[James M Donovan is presently on leave from his duties as librarian at the Tulane Law School. His fieldwork was conducted among the Candomble religion in Rio de Janeiro, with special emphasis on the psychobiology of spirit possession. Related articles include "Blaming It on God: Considerations When Presented with Supernatural Explanatory Entities," *Method and Theory in the Study of Religion* (1990), "God Is as God Does: Law, Anthropology, and the Definition of Religion," *Seton Hall Constitutional Law Journal* 6:1, 1995) and "Multiple Personality, Hypnosis, and Possession Trance," 1994 Yearbook of Cross-Cultural Medicine and Psychotherapy, pp 99-112, 1996.]



The Lorenz Attractor graphically illustrates the chaos principle of the sensitive dependence on initial conditions, or the "butterfly effect." It displays infinite complexity, staying within certain bounds without ever repeating itself.