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THEORIES OF CULTURE

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INTRODUCTION

“Yanomamö culture,” “Japanese culture,” “the evolution of culture,” “nature vs culture”: we anthropologists are still using that word, and we still think it means something. But looking across at our primate relatives learning local traditions, using tools, and manipulating symbols, we can no longer say comfortably that “culture” is the heritage of learned symbolic behavior that makes humans human. And standing amid the swirling tides of change and individual diversity, we can no longer say comfortably that “a culture” is the heritage people in a particular society share. Moreover, we increasingly realize that the holistic, humanistic view of culture synthesized by Kroeber and Kluckhohn includes too much and is too diffuse either to separate analytically the twisted threads of human experience or to interpret the designs into which they are woven.

The challenge in recent years has been to narrow the concept of “culture” so that it includes less and reveals more. As Geertz argues, “cutting the culture concept down to size . . . [into] a narrowed, specialized, and . . . theoretically more powerful concept” (30, p. 4) has been a major theme in modern anthropological theorizing.² And predictably, modern anthropologists have not agreed on the best way to narrow and sharpen the central conceptual tool they have inherited from their elders.

In the pages that follow, I will summarize recent rethinkings of “culture” as

¹ I am indebted to the Center for Advanced Study in the Behavioral Sciences, Stanford, California, for providing an idyllic setting where this review could be written, and to Bridget O’Laughlin, Mervyn Meggitt, Triloki Nath Pandey, and Gregory Bateson for their helpful suggestions.

² Implicit in this view is an assumption shared by most of us, I think: that “culture” does not have some true and sacred and eternal meaning we are trying to discover; but that like other symbols, it means whatever we use it to mean; and that as with other analytical concepts, human users must carve out—and try to partly agree on—a class of natural phenomena it can most strategically label.

falling into four focal areas. Having highlighted work being done in each area,³ I will seek to clarify the terminological, philosophical, and substantive issues that divide major theorists. In the process, I will consider the implications of these rethinkings for a number of classic anthropological questions: How have cultures developed and what forces shape them? How are cultures learned? How do shared symbolic systems transcend individual thought worlds? How different and unique are cultures? Do universal patterns underlie diversity? How is cultural description to be possible?

CULTURES AS ADAPTIVE SYSTEMS

An important expansion of cultural theory has come from viewing cultures in evolutionary perspective. A widened bridge between studies of hominid evolution and studies of human social life has led us to see more clearly that the human biological design is open-ended, and to perceive the way its completion and modification through cultural learning make human life viable in particular ecological settings. Applying an evolutionary model of natural selection to cultural constructions on biological foundations has led anthropologists to ask with increasing sophistication how human communities develop particular cultural patterns.

A vast literature, popular and technical, has dealt with the interweaving and relative importance of biological and cultural components of human behavior. Aggression, territoriality, sex roles, facial expression, sexuality, and other domains where cultural and biological are interwoven have been endlessly and often mindlessly discussed. From all this, we shall draw two brief conclusions, then pass on. First, any notion that if we peel off the layers of cultural convention we will ultimately find Primal Man and naked human nature underneath is both sterile and dangerous: we need a complex interactional model, not a simplistically stratigraphic one (19, 25). Second, either extreme ethological or extreme cultural determinism can now be sustained by ideology and faith but not by sober science. Just how biological templates are transformed and elaborated into cultural patterns will have to be worked out for each realm; and that will take careful and imaginative research designs and patient exploration, not polemics and sensationalism.

How human cultures are distinctive, despite the continuities in hominid evolution, has been extensively reviewed by Holloway (45), Alland (2, 3), Montagu (59), and others. A crucial issue here is how and at what stage vocal language evolved and what its immediate precursors were (44). If the evidence that an elaborated vocal language is less than 100,000 years old holds up, a vast period looms when

³ I will *not* list exhaustively the publications where "culture" is used or cultural theory is applied or developed. Since that would include a substantial proportion of the writings in anthropology, this would not only be impossible, but trivial and unrevealing: a focus on high points and highlights is clearly demanded in a review article concerned with refinement of theory, not accumulation of substance.

early humans lived in bands, made tools, hunted in well-planned forays, probably lived in pair-bond family relationships—a period of two million years or more of proto-human social life without a fully elaborated code for symbolic communication. Our understanding of what makes humans human and how cultures evolved will doubtless unfold and change excitingly in the next few years.

From the standpoint of cultural theory, however, the major developments have come from evolutionary / ecological approaches to cultures as adaptive systems. The major spawning grounds of evolutionary / ecological rethinkings have been Michigan and Columbia. The foundations laid by Leslie White have been creatively recast by such scholars as Sahlins, Rappaport, Vayda, Harris, Carneiro; and by such theory-minded archeologists as the Binfords, Flannery, Longacre, Sanders, Price, and Meggers. The rapprochement of a theoretical archeology with ecological anthropology emerges as one of the major developments of the past decade.

That is not to imply that consensus prevails about how cultures are best conceptualized or how and why they develop and change. The recent exchanges between Service (75) and Harris (42), Marxist critiques of Harris' cultural materialism, the gulfs between cultural ecology and the human ecology conceived by Vayda & Rappaport (81), the sectarian wars within "the new archeology," all attest to diversity and disagreement. Given this sectarian diversity, most scholars working in this tradition (I will for shorthand call them "cultural adaptationists")⁴ agree on some broad assumptions.

- (a) Cultures are systems (of socially transmitted behavior patterns) that serve to relate human communities to their ecological settings. These ways-of-life-of-communities include technologies and modes of economic organization, settlement patterns, modes of social grouping and political organization, religious beliefs and practices, and so on. When cultures are viewed broadly as behavior systems characteristic of populations, extending and permuting somatic givens, whether we consider them to be patterns *of* or patterns *for* behavior is a secondary question.

Culture is all those means whose forms are not under direct genetic control . . . which serve to adjust individuals and groups within their ecological communities (Binford 11, p. 323)

The culture concept comes down to behavior patterns associated with particular groups of peoples, that is to "customs" or to a people's "way of life" (Harris 41, p. 16).

- (b) Cultural change is primarily a process of adaptation and what amounts to natural selection.

Man is an animal and, like all other animals, must maintain an adaptive relationship with his surroundings in order to survive. Although he achieves this

⁴ A term which, however disagreeable, lacks the aura of ancient battles, rusting weapons, and buried protagonists that "cultural evolutionists" conjures to mind.

adaptation principally through the medium of culture, the process is guided by the same rules of natural selection that govern biological adaptation (Meggers 56, p. 4).

Seen as adaptive systems, cultures change in the direction of equilibrium within ecosystems; but when balances are upset by environmental, demographic, technological, or other systemic changes, further adjustive changes ramify through the cultural system. Feedback mechanisms in cultural systems may thus operate both negatively (toward self-correction and equilibrium) and positively (toward disequilibrium and directional change).

- (c) Technology, subsistence economy, and elements of social organization directly tied to production are the most adaptively central realms of culture. It is in these realms that adaptive changes usually begin and from which they usually ramify. However, different conceptions of how this process operates separate the “cultural materialism” of Harris from the social dialectics of more authentic Marxists or the “cultural evolutionism” of Service and distinguish the cultural ecologists of the Steward tradition from human ecologists such as Rappaport and Vayda. However, all (except perhaps the Rappaport of most recent vintage) would view economies and their social correlates as in some sense primary, and ideational systems—religion, ritual, world view—as in some sense secondary, derived, or epiphenomenal.

Service’s charges of monistic reductionism are misplaced here (see 42, 75). Harris’ analytical strategy expresses an expectation, not an assumption:

Similar technologies applied to similar environments tend to produce similar arrangements of labor in production and distribution, and . . . these in turn call forth similar kinds of social groupings, which justify and coordinate their activities by means of similar systems of values and beliefs (41, p. 4).

In assigning “priority to the study of the material conditions of sociocultural life,” Harris—like other articulate proponents of related views—does not invoke a simple “prime-mover,” but a complex of them (he himself speaks of “demo-techno-econo-environmental conditions”); and he and other cultural adaptationists leave room for cases where an ideology, home grown or imported, transforms the social and economic order. Marxist critics of Harris also stress—rightly, I think—the importance of conflicts and contradictions in the social order, not simply adaptation, in generating and guiding processes of social and cultural change.

- (d) The ideational components of cultural systems may have adaptive consequences—in controlling population, contributing to subsistence, maintaining the ecosystem, etc; and these, though often subtle, must be carefully traced out wherever they lead:

. . . It is necessary to consider the total culture when analyzing adaptation. Superficially, it might be assumed that attention could be confined to aspects directly related to the environment . . . [But] whether analysis begins with religious

practices, social organization, or some other sector of a cultural complex, . . . [it] will . . . reveal functional relationships with other categories of behavior that are adaptive (Meggers 56, p. 43).

The most striking recent elaboration of this view has been Rappaport's impressive analysis of Tsembaga Maring ritual cycles as components in an adaptive system (65); and more recently, his suggestion that ritual systems and the cultural frame of sanctity play a central part in mediating cultural adaptation (66–68).

IDEATIONAL THEORIES OF CULTURE

In contrast to the diverse adaptationist theorists of culture stand a number of theorists who see cultures as ideational systems. Here I will distinguish three rather different ways of approaching cultures as systems of ideas.

Cultures as Cognitive Systems

Another major theme of the last 15 years has been the emergence of an explicit cognitive anthropology. In practice, “the new ethnography” has been mainly an exploration of systems of folk classification (“ethnoscience,” “ethnographic semantics”). But beyond the anthropological study of other peoples’ butterfly collecting has emerged a new and important view of culture as cognition.

Cultures are seen as systems of knowledge. To quote Ward Goodenough:

A society's culture consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members. Culture is not a material phenomenon; it does not consist of things, people, behavior, or emotions. It is rather an organization of these things. It is the form of things that people have in mind, their models for perceiving, relating, and otherwise interpreting them (32, p. 167).

Culture . . . consists of standards for deciding what is, . . . for deciding what can be, . . . for deciding what one feels about it, . . . for deciding what to do about it, and . . . for deciding how to go about doing it (33, p. 522).

Goodenough contrasts this ideational sense of culture with the sense used by the adaptationists we have discussed, who conceive culture to be the “pattern of life within a community—the regularly recurring activities and material and social arrangements” (33, p. 521; 34–37).

So reconceived, cultures are epistemologically in the same realm as language (Sassure's *langue* or Chomsky's competence), as inferred ideational codes lying behind the realm of observable events.

In this conceptualization, language is a subsystem of culture; and explorers in cognitive anthropology have hoped or assumed that linguistic methods and models will be appropriate to other cultural realms: hence componential analysis, emic vs etic, eliciting frames, etc. [See Keesing's argument (48) that cognitive anthropologists have made this jump too lightly, and have borrowed from a now outmoded taxonomic linguistics.] But in the last several years, attention has

begun to turn from the uniqueness of cultural systems to a search for universal patterns (48).

Analyses of cultures as cognitive systems have not progressed very far beyond a mapping of limited and neatly bounded semantic domains. Significant attempts to formalize the cultural knowledge needed to stage performances or operate in limited social situations have been made by Frake (18), Metzger & Williams (57), Wallace (83), Spradley (77), Agar (1), and others; but it is striking in retrospect that the messianic optimism of early cognitive anthropology has yielded so few fragments of cultural description.

Moreover, it has yielded few even tentative sketch maps of the overall structure and organization of cultures as cognitive systems (see e.g. 50, p. 123; 34, pp. 258–59; 37; 78). Not only has the notion of a “cultural grammar” proved unproductive and inadequate in the face of the staggering richness and complexity of human knowledge and experience; “new ethnographers” have not set out even an empty blueprint of how an overall cognitive system might be organized, and hence how the bits and pieces offered in demonstration might fit into a wider design. Such a lack of broad vision, I believe, has obscured the magnitude of the realms of culture not amenable to the surface probings of formal ethnography. I have argued (48, 49) that the new transformational linguistics gives some valuable insights about how cultural knowledge underlying the surface structures so far mapped might be organized; below I will argue that burgeoning research in artificial intelligence can yield further insights.

Cultures as Structural Systems

On the continent, Lévi-Strauss has continued to elaborate his view of men’s symbolic worlds and the processes of mind that generate them; and in the last decade, structuralist approaches have had profound impact on many scholars trained in the Anglo-American tradition.

Lévi-Strauss’ writings on culture and mind have not only been sweepingly influential; as sacred texts, they have elicited an ever-widening stream of exegetical literature.⁵ I will not add substantially to that stream. Here only a few points will serve to place the Lévi-Straussian position in relation to those that precede and follow. Lévi-Strauss views cultures as shared symbolic systems that are cumulative *creations of mind*; he seeks to discover in the structuring of cultural domains—myth, art, kinship, language—the principles of mind that generate these cultural elaborations. Material conditions of subsistence and economy constrain (but do not *explain*) lived-in worlds; but especially in myth, they leave thought-of worlds free reign. The physical world humans live in provides the raw materials universal processes of mind elaborate into substantively diverse but formally similar patterns. The mind imposes culturally patterned order, a logic of binary contrast, of relations and transformations, on a continuously changing and often

⁵ Literary critics have a tendency to be ponderous, obscure, and intellectually pretentious, in counterpoint to the textured beauty of the texts they seek to illuminate; and Lévi-Strauss’ exegetes and apologists have with rare exceptions (notably Boon 12) carried on this tradition.

random world. The gulf between the cultural realm, where man imposes his arbitrary order, and the realm of nature becomes a major axis of symbolic polarity: “nature vs culture” is a fundamental conceptual opposition in many—perhaps all—times and places. Lévi-Strauss, especially in *Mythologiques*, is more concerned with “Culture” than with “a culture”: he sees American Indian mythic structures as overlapping, interconnected patterns that transcend not only the cognitive organization of individual Bororo or Winnebago or Mandan actors, but in a sense transcend as well the boundaries of language and custom that divide different peoples.

Cultures as Symbolic Systems

Another avenue of approach to culture, related to but distinct from both the American cognitivist and continental structuralist approaches, has been to treat cultures as systems of shared symbols and meanings (13). On the continent, this avenue has been most extensively explored by Louis Dumont.⁶ In the United States, the most notable pioneers have been two anthropological heirs to the Parsonian tradition: Clifford Geertz and David Schneider.

Geertz’ powerful view of culture, illumined by a broad humanistic scholarship, has become increasingly systematic. Like Lévi-Strauss, Geertz is at his best when he draws on general theory to interpret ethnographic particulars; unlike Lévi-Strauss, he finds these particularities in the richness of real people in real life: a cockfight, a funeral, a sheep theft. His texts are not disembodied and decontextualized myths or customs, but humans engaging in symbolic action.

Geertz sees the cognitive view of Goodenough and the “new ethnographers” as reductionistic and spuriously formalistic. Meanings are not “in people’s heads”; symbols and meanings are shared by social actors—between, not in them; they are public, not private.⁷ Cultural systems are ideational, but in the sense that a Beethoven quartet is ideational—beyond or between its manifestations in individual minds or concrete performances. Cultural patterns, he says, are not reified or metaphysical: like rocks and dreams “they are things of this world.”

Geertz sees his view of culture as *semiotic*. To study culture is to study shared codes of meaning. Borrowing from Ricoeur a broader sense of “text,” Geertz recently has treated a culture as “an assemblage of texts” (29, p. 26; cf. 13). Anthropology thus becomes a matter of *interpretation*, not decipherment (in this, Geertz contrasts his own approach with Lévi-Strauss’ (see Geertz 28 and 29, p. 36, f.n. 38);⁸ and interpretation becomes “thick description” that must be deeply embedded in the contextual richness of social life.

Geertz has no ethnoscience optimism that the cultural code can be formalized as

⁶ Dumont’s important ideas will not, due to limitations of space, be reviewed here.

⁷ In this Geertz draws on Husserl, Wittgenstein, and Ryle.

⁸ Note a further central contrast between Lévi-Strauss and Geertz, especially as drawn by the former: Lévi-Strauss’ rejection [as argued in *L’Homme Nu* (54)] of the subjectivist orientation of phenomenology, which Geertz follows in drawing on Schutz and on the Parsonian actor frame of reference.

a grammar, no Lévi-Straussian glibness at decoding: interpreting cultural texts is a slow and difficult task. How a culture as an assemblage of texts fits together is nowhere made clear (presumably, Geertz would agree that we are still in the early stages of finding that out). When he has stepped back to generalize about religion, ideology, and common sense as cultural systems and about Balinese concepts of time and person (24, 26, 27, 30, 31), some picture of the relation between cultural domains begins to emerge. His view of the wider patterning of culture emerges most vividly in an extension of Wittgenstein's analogy between our language and an old city, "a maze of little streets and squares" that are the precipitate of time, surrounded by a neat reticulate design of planned modern sections—the formal languages of mathematics and science. Cultures are, Geertz argues, like old cities. The ones anthropologists usually study, unlike our own, have few if any planned suburbs (and that, he argues, makes somewhat spurious the anthropological effort to find in the wandering streets of those ideational cities the sectors that correspond to our neatly planned suburbs of philosophy, law, or science). The analogy is vivid; and Geertz has made a notable effort to explore some sectors of several old and tangled cities, to convey the subtle spirit of the streets as well as their rough map, and to generalize about the corresponding sectors of different cities. The overall plan of these cultural cities cannot yet be seen. Elsewhere, Geertz warns against the danger of the analyst mapping a culture in such a way as to maximize and neaten its integration and internal consistency—where in fact only partial integration and often disconnectedness and internal contradiction exist. He creates another vivid metaphor:

... The problem of cultural analysis is as much a matter of determining independencies as interconnection, gulfs as well as bridges. The appropriate image, if one must have images, of cultural organization, is neither the spider web nor the pile of sand. It is rather more the octopus, whose tentacles are in large part separately integrated, neurally quite poorly connected with one another and with what in the octopus passes for a brain, and yet who nonetheless manages to get around and to preserve himself, for a while anyway, as a viable, if somewhat ungainly entity (27, pp. 66–67).

A related but somewhat different tack has been taken by David Schneider. Like Geertz, Schneider began from a Parsonian framework, but he, too, has developed it in a distinctive way (drawing heavily on the insights of Dumont).

Schneider's view of culture is clearly expressed in his introduction to *American Kinship: A Cultural Account*. Culture, he tells us, is a system of symbols and meanings. It comprises categories or "units," and "rules" about relationships and modes of behavior. The epistemological status of cultural units or "things" does not depend on their observability; both ghosts and dead people are cultural categories. Nor are rules and categories to be inferred directly from behavior; they exist, as it were, on a separate plane. "The definition of the units and the rules is *not* based on, defined by, drawn from, constructed in accord with, or developed in terms of the observations of behavior in any direct, simple sense" (71, p. 6). And, as Schneider's analysis of kinship makes clear, he believes that analysis of cultures as systems of symbols can profitably be carried out independently of the "actual

states of affairs” one can observe as events and behaviors. There are, he admits, important questions to be asked about the connections between the plane of cultural symbols and the plane of observable events so that one can “discover how the cultural constructs are generated, the laws governing their change, and in just what ways they are systematically, related to the actual states of affairs of life” (71, p. 7); but in his recent work, he has chosen to leave those tasks to others.

More recently, Schneider (72), has expanded and clarified his conception of culture. He distinguishes a level of “how-to-do-it” rules or *norms* that tell an actor how to navigate in his social world. But he wants in cultural analysis to take one further step back, to distinguish “the system of symbols and meanings embedded in the normative system, but . . . a distinct aspect of it [which] . . . can easily be abstracted from it”:

By symbols and meanings I mean the basic premises which a culture posits for life: what its units consist in; how those units are defined and differentiated; how they form an integrated order or classification; how the world is structured; in what parts it consists and on what premises it is conceived to exist, the categories and classifications of the various domains of the world of man and how they relate one with another, and the world that man sees himself living in (72, p. 38).

Since Schneider’s contrast between “normative” and “cultural” levels is conceptually important, it is worth quoting him at greater length as he clarifies it:

Where the normative system . . . is Ego centered and particularly appropriate to decision-making or interaction models of analysis, culture is system-centered . . . Culture takes man’s position vis-à-vis the world rather than *a* man’s position on how to get along in this world as it is given. . . . Culture concerns the stage, the stage setting, and the cast of characters; the normative system consists in the stage directions for the actors and how the actors should play their parts on the stage that is so set (72, p. 38; see also 73).

Schneider goes on to contrast his approach to cultural analysis with Geertz’. He sees the latter as bound—as Parsons himself has been—by Weberian assumptions: a domain of the *social system* (kinship or religion or economics or politics) is carved out, and the corresponding cultural realm is analyzed. A purely cultural analysis can fruitfully trace interconnections of symbols, premises, and principles of order wherever they lead; and a map of the cultural system *as a separate level* will, he argues, look very different than an interpretation of the cultural correlates of social institutions. In the end, he calls for a pure cultural analysis “uncontaminated by the study of its social system”; and only after this logically prior task, for the tracing of interconnectedness between cultural, social, and psychological planes, so as to understand the social life of a people or the actions of individuals.

CULTURES AND SOCIOCULTURAL SYSTEMS

In seeking to clarify the issues that divide major theorists of culture, we begin with no expectation that an eclectic composite can be reached with which they would

agree: any statement about culture on which Marvin Harris and David Schneider could agree would probably be vacuous. And being eclectic would lead back toward the broad and clumsy culture concepts of the past.

Nonetheless, a conceptual sorting out will be useful, not to reconcile the disagreements, but to identify their nature and source. Some of them are philosophical and some substantive; some could be resolved by empirical evidence, some could not. Each of the theoretical positions or approaches I have sketched has strengths and vulnerabilities. By underlining strengths and exposing vulnerabilities hidden beneath eloquent rhetoric, some ways of joining strength to strength and guarding exposed flanks, and some paths for future research, may usefully emerge.

A first contrast in sorting out these conceptualizations of culture parallels is drawn by Goodenough. I will call (with considerable precedent) the patterns-of-life-of-communities *sociocultural systems*. Sociocultural systems represent the social realizations or enactments of ideational designs-for-living in particular environments. A settlement pattern is an element of a sociocultural system, not an element of a cultural system in this sense. (The same conceptual principles might yield densely clustered villages or scattered homesteads, depending on water sources, terrain, arable land, demography, and the peaceful or headhunting predilections of the neighboring tribe.) A mode of subsistence technology similarly is part of a sociocultural system, but not strictly speaking part of a cultural system (people with the same knowledge and set of strategies for subsisting might be primarily horticulturalists in one setting and primarily fishermen in another, might make adzes of flint in one setting or shells in another, might plant taro on one side of a mountain range or yams on the other side).

What cultural adaptationists are talking about are, in this sense, sociocultural systems-in-environments. It is these systems that are adaptive or maladaptive, that are subject in some way to natural selection. Ideational designs for living, patterns of shared meanings and systems of knowledge and belief, are crucially important subsystems of ways-of-life-in-environments. The latter are complex systems in the cybernetic sense, in which complex circuits connect ecological, demographic, ideational, and other subsystems.⁹ How these circuits are interconnected, how information ramifies through them, and how homeostatic processes and directional change operate are (or can be) empirical questions for investigation, not articles of faith and ideological polemic.

[Note that this conceptualization of culture as an ideational system does not then correspond to the distinction drawn by Harris and some other cultural adaptationists between the economic domain (subsistence, technology, social organization of productive units) and the ideational realm (religion, ideology, law, art, etc). Knowledge and strategy about environments and ways of extracting subsistence from them, about making tools, about forming work groups, are as

⁹ That these subsystems, or elements of them, may be from different ontological realms is, in the perspective of cybernetics, irrelevant (66).

much a part of the ideational realm I am calling “culture” as patterns of cosmological belief or religious ritual.]¹⁰

That throws Goodenough, Lévi-Strauss, Geertz, and Schneider in one camp (from which the clashing of symbols can be heard in the distance). It does so in a way that most new archeologists and ecological/evolutionary cultural anthropologists can probably accept as a possible—if not necessarily productive—conceptual strategy. At least they would mainly agree that what they are interested in are sociocultural systems¹¹ and how they develop and change. One can then investigate how ideational systems operate in this process of adaptation and change, both in terms of internal structure (how are changes in ideas about subsistence strategy related to changes in ideas about kinship or changes in ideas about religious ritual?) and in relation to other subsystems (how are ideas about choosing postmarital residence related to increased population or increased agricultural production?).

CULTURES AS IDEATIONAL SYSTEMS: PARADOXES AND PROBLEMS

The theorists of cultures as ideational systems, whom we have thrown into one noisy camp, remain to be sorted out. These modern theorists share an important premise that partly distinguishes them from their intellectual predecessors. As Singer (76) has noted, the two parallel traditions of American cultural anthropology and British social anthropology each entailed a kind of intellectual imperialism: for the former, social patterns were one realm of the culture; for the latter, especially Radcliffe Brown, cultural patterns are crystallized in social structure “as institutionalized and standardized modes of behavior and thought whose normal forms are socially recognized in the explicit or implicit rules to which the members of a society tend to conform” (76, p. 532). The dangers of swallowing the social into the cultural or the cultural into the social have been vividly portrayed by Geertz:

Either culture is regarded as wholly derivative from the forms of social organization . . . or the forms of social organization are regarded as behavioral embodiments of cultural patterns. In either case . . . the dynamic elements in social change which arise from the failure of cultural patterns to be perfectly congruent with the forms of social organization are largely incapable of formulation (22, p. 992).

He, Goodenough, Lévi-Strauss, Schneider, and other major modern theorists share the premise that cultural and social realms are distinct though interrelated: neither is a mere reflection of the other—each must be considered in its own right.

¹⁰ Note, however, that the distinction I have drawn is characteristically observed in Marxist analysis.

¹¹ Many, such as the Binfords, have used that designation as more or less interchangeable with “cultural systems.”

Such a conceptual untangling is basic to the refinements of theory and narrowings of the “culture” concept of the last 20 years.

The heart of the conceptual disagreements between these scholars is the problem of what to do about a basic paradox of human social life: When individuals engaging in social relations—even if there are only two of them—share common meanings, common understandings of one another’s acts, then these shared meanings are greater than the sum of their “parts,” their realizations in individual minds. Social meanings transcend, by some mysterious alchemy of minds meeting, the individuation of private experience. Social thinkers have struggled with this paradox for decades, even for centuries; yet *consciences collectives* still confound analytical dissection.

Goodenough’s solution is to describe “culture” as an idealized systematization of an individual cognitive world, one that could enable an outsider to produce culturally appropriate responses in the range of social situations a native actor would encounter—to decide in culturally “grammatical” ways “what is, . . . what can be, . . . how one feels about it, . . . what to do about it, . . . and how to go about doing it.” Thus what is shared is reduced to an idealized individual actor’s point of view (one who, like Chomsky’s hypothetical speaker-hearer, knows his culture perfectly). Goodenough’s cognitive model would thus be a composite of the cultural knowledge of individuals in different social niches. Yet he, like the linguists, leaves room to deal with subcultural variations and individual differences (33, 34–37). Goodenough is by no means as simplistic a cognitive reductionist as Geertz portrays him to be:

People learn as individuals. Therefore, if culture is learned, its ultimate locus must be in individuals rather than in groups. . . . Cultural theory must [then] explain in what sense we can speak of culture as being shared or as the property of groups . . . and what the processes are by which such sharing arises. . . . We must . . . try to explain how this analytically useful construct relates to . . . the social and psychological processes that characterize men in groups (37, p. 20).

Goodenough carefully distinguishes seven related ideational senses of “culture” that systematically relate the cognitive worlds of individuals to the collective ideas and behavior of populations (37, pp. 41–42).

Lévi-Strauss sees cultures as transcending individual actors, even as transcending in a sense ethnic boundaries; yet collective representations reflect and reveal the structures and processes of the individual minds of which they are cumulative creations.

Geertz takes the alchemy of shared meanings as basic, but—following Wittgenstein, Husserl, and Ryle—not as mysterious. Public traffic in symbols is very much of this world, not (he would argue) of a Platonic reified imaginary one. Geertz presumably would agree that cultures are “located in time and space by the temporal and spatial distribution of the individuals bearing them” (6, p. 86): but cultures are, as it were, *between* the minds of these individuals, not *in* them. Schneider wants to go a step further, it seems, toward a “methodological essentialist” position (63, pp. 28–29) that a culture in some sense exists “in its own right

independently of its imperfect manifestations in the thoughts and actions of its bearers" (6, p. 86). In distinguishing the normative system from the system of cultural symbols and meanings, Schneider explicitly abstracts above and away from the perspective of an individual actor. This level of disembodied symbols, freed from their moorings in the world of social action and situational context, exists in the cognitive world of the cultural theorist; but only ego-centered *perspectives on it* exist in the cognitive worlds of his subjects.

This raises another facet of the basic paradox of the transcendence of shared symbols. Each actor perceives the way of life of his people as in some sense *external*. We do have a perspective on what we construe to be the game our fellows are playing (we also unconsciously assume—through cultural learning—many elements of the world in which we see it being played and view it with emotions subtly shaped by cultural experience). Perceiving "the system," one has some free rein to try to beat it, join it, change it, etc (53).

Moreover, the immediate life space each of us mainly moves in is a world not of roles and institutions and abstract rules, but of individual people and places that are intimately known. We live our lives mainly in familiar phenomenological space whose particularities guide our response. We call cultural roles and rules—based on the general and abstract, not the concrete and individual—into play mainly on the periphery of our immediately familiar space, when dealing with strangers or bureaucracies, or engaging in passing encounters with salesclerk or policeman (encounters much less frequent in the small-scale societies of most of the human past). In this sense, the knowledge that enables individuals to act in "culturally appropriate" ways is only a part of what they know that enables them to live in groups.

There are, moreover, fuzzy but important differences between a collective ideational system and the psychodynamics of the individual—differences theorists of "culture and personality" have sought for years to untangle.

All this means that any effort to reduce cultural systems to the cognitive system of an idealized individual actor is fraught with danger.

In such a way, extreme subjectivism is married to extreme formalism, with the expected result, an explosion of debate as to whether particular analyses . . . reflect what the natives "really" think or are merely clever simulations . . . The cognitive fallacy—that culture consists of "mental phenomena which can . . . be analyzed by formal methods similar to those of mathematics and logic" (80) is as destructive of an effective use of the concept as the behaviorist and idealist fallacies to which it is a misdrawn correction . . . Culture . . . is no more . . . a psychological phenomenon, a characteristic of someone's mind, . . . than . . . Tantrism, genetics [or] the progressive form of the verb (Geertz 30, pp. 11–13).¹²

¹² As noted, Geertz errs in attributing a naively reductionist cognitive view to Goodenough himself; for though Goodenough "places culture in the minds and hearts of men," he is in fact highly sophisticated in his discussion of culture as a composite of what is shared and public; and his most recent synthesis develops a view fairly close to the one I will attempt (37).

But the other horn of the conceptual dilemma—to cut “culture” free of the individual minds through which it is realized—poses dangers as well.

First, the structure of cultural systems is created, shaped, and constrained by individual minds and brains. What forms cultures take depend on what individual humans can think, imagine, and learn, as well as on what collective behaviors shape and sustain viable patterns of life in ecosystems. Cultures must be thinkable and learnable as well as livable.

Without informing our models of cultures with deepening knowledge of the structures and processes of mind, our cultural analyses may turn out to be mere *literary exercises*. Schneider complains that Geertz—in shaping his cultural analyses around religious institutions (or agricultural or economic ones)—distorts the patterning of cultures as ideational systems. But does Schneider, having moved to an ethereal level of symbols and meanings transcending individual minds, have a spurious freedom to draw his own designs when he thinks he is tracing other peoples’? Schneider has trained a number of students to expect great diversity in the cultural realm of kinship symbols; and not surprisingly, they have found it. Exploring a transcendent level of cultural symbols wherever they seem to lead, we may similarly discover radical diversity in other realms. But many of us are convinced that the diversity is to substantial degree a spurious artifact of the pursuit of cultural symbols unconstrained by the way humans think and learn and communicate, and the social settings in which they act. Time will resolve the question of whether kinship systems are in fact radically diverse symbolic realms, or permutations of the same basic system—so that an Australian Aborigine could drop in on New Guinea tribesmen or desert Bedouin and understand immediately, even through linguistic filters, what kinship discourse was about.

This raises, though obliquely, the question of universals. Are there in nonlinguistic culture universal patterns paralleling the ones emerging in language? In linguistics, the emergence of a universal grammar underlying surface syntactic diversity (and obviating any strong form of Whorfian relativism) has been a major theme of the last decade. Especially in recent generative semantics, the deepest structures of sentences are seen as propositions in a universal “natural logic” that encodes meanings—a logic very similar to that formalized by Boole in his much-maligned *Laws of Thought* (1854) where he sought “to investigate the fundamental laws of those operations of the mind by which reasoning is performed . . . and . . . to collect . . . some probable intimations concerning the nature and constitution of the human mind.” Lévi-Strauss has of course sought to find universal processes of thought in the stuff of cultures: he could well have used the same words as Boole to describe his own enterprise, though the linguistic models he borrows are mainly the relatively static formalisms of structuralist phonology.

What is important is that this seems an auspicious time to seek cultural universals, though not to assume them, for language may turn out to be a quite specialized subsystem of logic and transduction (48, 49). And what universals there turn out to be will—most interestingly, at least—be universals of process, of logic, of structure, of organizational principles, rather than of substance (48, 69).

The sterility of seeking common denominators in the substantive stuff of culture has been eloquently argued by Geertz (25).

To what degree universals of language would reflect innately specified rules, logics, or structures is open to serious debate. Chomsky has argued for detailed innate specification; Piaget and others have countered that general cognitive principles and strategies may underlie both linguistic competence and acquisition of other cognitive abilities; and Piaget contends that highly complex hierarchical cognitive systems are built on minimally programmed foundations through the progressive unfolding or more and more complex “theories” about the world, each built on and reorganized from the previous one (62). If there turn out to be important universals of cultural structure (in this formal, not substantive, sense), it is not yet clear how much genetic programming and how much progressive cognitive refinement would underlie them.

Such frontier questions underline the urgency of not divorcing a conception of culture from our burgeoning knowledge of the mind. Geertz, concerned to bring the enlightenment of phenomenology, linguistic philosophy, and hermeneutics to anthropology, would do well to remember that it has been revolutions in science (evolution, relativity, quantum theory, cybernetics, molecular biology, linguistics) that have progressively transformed modern philosophy, not the reverse. A revolutionary advance in our understanding of the organization of intelligence—in a broad cybernetic sense that includes coding at a genetic, cellular, organismic, and ecosystemic level as well as in mind and brain—is now in its early stages.¹³ In the international quest—not interdisciplinary but *superdisciplinary*—to unite a formal theory of intelligence and communication with an emerging theoretical biology and the empirical sciences of cognition (4, 60, 64), the human brain and its opposite face, the mind, represent the ultimate challenge, the most complex known natural systems:

The human brain integrates the facts that it acquires through experience and other forms of learning into a model of the world. New facts are interpreted in the light of the model . . . Understanding . . . such world models, their neutral organization, their dependence upon environment and culture, are fundamental and difficult questions that cut across many scientific disciplines (14, p. 437).

More than a decade ago, Geertz noted early advances on these fronts and their potential importance (23); and in 1965, he wrote that “culture is best seen not as complexes of concrete behavior patterns—customs, usages, traditions, habit clusters— . . . but as a set of control mechanisms—plans, recipes, rules, instructions (what computer engineers call ‘programs’)—for the governing of behavior” (25, p. 57). But he has not, I think, fully explored the implications of these insights. We

¹³ Intelligence in this sense refers not simply to brains, real or artificial, but to formal representations of systems that display “biological” or “mental” properties of self-organization, goal-direction, and information processing characteristic of living systems. “Formal biology in this sense . . . would . . . be . . . a theory of *all* organisms, both natural and artificial” (51, p. 49).

will be poorly served if we weather the next revolutionary storms in philosophy poring over Husserl, Ryle, and Wittgenstein.¹⁴

Finally, treating the realm of cultural symbols as shared and public, as transcending the minds of individuals, raises the danger not only of the cultural interpreter creating a spuriously integrated and internally consistent symbolic design (recall Geertz' octopus analogy), but also of his hiding diversity and obscuring change. It seems likely that a range of diversity in individual versions of the "common" culture is not simply a social imperfection, but an adaptive necessity: a crucial resource that can be drawn on and selected from in cultural change. The most abstract cultural premises about what things there are and how they are related to one another and to human life may be relatively uniform and slow to change. But specific plans and patterns for human action and understanding are diverse (37, 78, 84), and unlike Beethoven quartets, they change.

But we are still left between the horns of a conceptual dilemma: on the one hand, of cognitive reductionism that misses the magic of shared symbols and the only partial overlap between the psychological world of the individual and the code of cultural meanings and conventions; and on the other, of a spuriously autonomous and spuriously uniform world of cultural symbols freed from the constraints of the mind and brain by which cultures are created and learned and through which they are realized.

TOWARD A CONCEPTUAL UNTANGLING

Perhaps the conceptual distinction between "competence" and "performance" that linguists are struggling to maintain can provide an avenue of escape from this dilemma. Linguistic competence is a model of the knowledge of his language a native speaker *draws on* in speaking and hearing (the processes of linguistic performance). In the Chomskyan linguistics of the mid-1960s, primary concern was with the competence of an idealized speaker-hearer who knows his language perfectly. But increased sophistication in the transformational camp, and pressures from Labov and his fellow "variationists," increasingly lead theorists to deal with diversity. How and at what level the linguistic competence of individuals varies has become a hotly debated issue that will be carefully studied in the next few years. Whether we analytically create a uniform idealized competence or plot differences in the competence of subgroups (dialects) or individuals (idiolects) becomes a question of heuristic strategy geared to the problem of the moment. Competence remains distinguishable from performance.¹⁵

It seems potentially possible to distinguish analytically a *cultural competence* that does not incorporate the whole psychological world of each individual, and that allows us to avoid both horns of the conceptual dilemma.

¹⁴ As Bateson points out (10), there are serious problems of logical typing involved in the conceptualization of culture that have yet to be sorted out. Cybernetic modeling, drawing on increasing understanding of the formal structure of heterarchical systems, may be crucially important in this regard.

Culture, conceived as a system of competence shared in its broad design and deeper principles, and varying between individuals in its specificities, is then not all of what an individual knows and thinks and feels about his world. It is his *theory of what his fellows know, believe, and mean*, his theory of the code being followed, the game being played, in the society into which he was born (see also 37). It is this theory to which a native actor *refers* in interpreting the unfamiliar or the ambiguous, in interacting with strangers (or supernaturals), and in other settings peripheral to the familiarity of mundane everyday life space; and with which he creates the stage on which the games of life are played. We can account for the individual actor's perception of his culture as external (and as potentially constraining and frustrating); and we can account for the way individuals then can consciously use, manipulate, violate, and try to change what they conceive to be the rules of the game. But note that the actor's "theory" of his culture, like his theory of his language, may be in large measure unconscious. Actors follow rules of which they are not consciously aware, and assume a world to be "out there" that they have in fact created with culturally shaped and shaded patterns of mind.

We can recognize that not every individual shares precisely the same theory of the cultural code, that not every individual knows about all sectors of the culture. Thus a cultural description is always an abstracted composite. Depending on the heuristic purposes at hand, we, like the linguists, can plot the distribution of variant versions of competence among subgroups, roles, and individuals. And, like the linguists, we can study the processes of change in conceptual codes as well as in patterns of social behavior (37).

Such a conception of culture as an idealized body of competence differentially distributed in a population, yet partially realized in the minds of individuals, allows us to bring to bear a growing body of knowledge about the structure of mind and brain and the formal organization of intelligence. Even though no one native actor knows all of the culture, and each has a variant version of the code, culture in this view is ordered not simply as a collection of symbols fitted together by the analyst but as a *system of knowledge*, shaped and constrained by the way the human brain acquires, organizes, and processes information and creates "internal models of reality" (16, 38, 39). Such a conception of culture frees us potentially from the dangers of both cognitive reductionism and ethereal idealism.

To this point I have suggested that we look to linguistics for conceptual guidance. However, the linguists—having distinguished competence from performance—have chosen mainly to study only the former. This has not only given modern linguistics an aura of ivory tower scholasticism in a world where language has been an instrument of oppression and a force of division. It has unnecessarily separated advances in linguistics from advances in psychology, anthropology, and biology. And as Labov and others have pointed out, it has progressively narrowed

¹⁵ The main difficulties have come in maintaining the boundary between linguistic competence and cultural knowledge in the face of the need to study presuppositions. The permeability of that boundary need not concern the anthropologist, who begins on the messy side linguists want to avoid if they can (48, 52).

the data base of linguistic inquiry so that a large edifice teeters precariously on a thin edge of intuition.¹⁶

I am convinced that if anthropologists conceptualize culture as epistemologically and logically parallel to linguistic competence, they should do so only within a wider concern with sociocultural "performance." An ideational conception of culture "will serve us badly if we take the abstract system we have created out of the flux of the phenomenal world and examine 'it' to see how 'it' is put together. But 'culture' could serve us well if we use it to help untangle the vastly complex skeins of interconnectedness in that world" (48, p. 326).

I am thus agreeing with Schneider that cultures as ideational systems should be explored and mapped in their own terms, not in terms of the domains of social life; but I am disagreeing with his conclusion that the study of culture can profitably be pursued "uncontaminated" by the study of the social and ecological settings in which humans act.

Let me make my reasons explicit.

1. The questions that mainly concern anthropologists are only partly questions about cultures as ideational systems. We want to understand how human groups organize and sustain their social life; how biology and experience interact as individuals become functioning members of a society, and how the nature of that experience shapes personalities; how different—and how similar—are human modes of thought and perception in different times and places; how ways of life change, and what shapes the form they take in particular settings.

We cannot understand other people's lives simply by mapping their culture—though (contra Harris 40) we cannot understand or even adequately record events in their world without understanding their "internal models of reality" (see 15, 37). I have elsewhere illustrated this with Trobriand examples (47, p. 404; 50, p. 441). A competence model of Trobriand culture would tell us what classes of things, people, and events there are and what kind of a world they are situated in, and it would give rules for how to garden, trace descent, exchange, and reside. But it would tell us nothing about residence patterns, descent groups, agricultural production, or the flow of exchange—or even how many Trobrianders there are and where they live.

2. The magic of shared symbols, of minds meeting, is not a magic that occurs on some ethereal cultural plane; as Geertz, phenomenologists, and ethnomethodologists are vividly aware, it is a magic enacted in social settings. It is embedded in public encounters. "The mind is not even a metaphorical 'place' . . . The chessboard, the platform, the scholar's desk, the judge's bench, the lorry-driver's seat, the studio, and the football field are among its places" (70, quoted in 23). Meanings are shared by people whose conceptions of their culture are not identical; and that is more than a matter of common denominators or even of "equivalences" (84). But it is a magic achieved not in a hypothetical vacuum, a

¹⁶ Or more precisely, on native speakers' competence in communicating their intuitions about sentences proffered by a linguist.

symbolic realm, but in the collective application of the general to the particular, the private to the social.

3. To understand change and diversity, we must see cultures as elements in complex cybernetic systems of humans-in-environments. An ideational model of culture, in isolation, prevents our understanding change and adaptation. As part of a more complex conceptual scheme, however, such a model of culture enriches our understanding of change and helps us to correct overly simplistic ecological / adaptationist models.

Cultures must generate viable patterns-of-life in ecosystems (or more precisely, they must not generate nonviable ones). But that does not mean that natural selection prunes and shapes ideational systems in any simple and direct way. Patterns of social life in a community are not a simple enactment of shared cultural programs. As Homans has observed, “the central problem of the social sciences remains that posed, in his own language and in his own age, by Hobbes: How does the behavior of individuals create the characteristics of groups?” (46, p. 106). The behavior of individuals is guided, channeled, and constrained by cultural principles and rules about the game of life and how it is to be played. But it is individuals, making choices, pursuing strategies, maximizing values, forming coalitions, that generate the patterns of social life¹⁷ (5, 7–9, 46). The rules of the game are themselves generated and changed by the patterns of play they guide, in a continuing dialectic.

It is how humans live, not how they conceptualize the game of life, that is directly shaped by selective pressures. Moreover, the superbrain that enables humans to solve survival problems in a wide range of environments imposes costs of its own: ritual, myth, cosmology, and magic may be adaptations to the pressures of the human psyche—to anxieties, frustrations, fears, and questionings—as much as they are adaptations to the pressures of the external environment.

4. To study cultures as ideational systems without mapping the complex cybernetic circuits¹⁸ that link them to social systems, to ecosystems, and to the psychology and biology of individuals would turn cultural analysis into an arcane pursuit isolated from surrounding disciplines at a stage when a fantastic burst of scientific knowledge—with human survival as the stakes—is being launched: a burst that should relegate to the realm of Ptolemaic astronomy (or at least pre-Watson-Crick genetics) previous theories in ecology, the neurosciences, psychology, and related fields.

5. In the course of this advance, an irony may loom increasingly large: cultures as systems of knowledge may turn out to be only partly describable in the formal languages we command. Despite impressive progress in cybernetic modeling of the way the central nervous system processes and organizes information, there is a vast gulf between the models and what the brain achieves efficiently and almost

¹⁷ Cf Freilich’s distinction between “proper” and “smart” in his rather different conceptualization of the cultural and social realms (21).

¹⁸ In the sense explored by Rappaport (66–68).

instantly. Some progress is being made to close this gap, and to unravel the mysteries of the living brain¹⁹ (see, e.g. 4, 64).

But even as scientists begin to write ethnographies for robots and to explore mathematically and biologically the structure of “memory” (61, 64, 79)—of internal models of reality—many facets of mind resist formal representation. Interestingly, it is not the highly intellectual logical functions of mind, but the evolutionarily old, unconscious, “automatic” functions that resist analysis.²⁰

That suggests that there may be some fundamental obstacles, perhaps more evolutionary than Gödelian, to our laying bare in any formal way what humans “know” that enables them to do what they do. George Miller’s warnings vividly suggest the dilemma:

Given that we can know rules that have not yet been formulated [as in our implicit knowledge of grammatical rules], could we know rules that govern the operations of the human mind that the human mind, given its present level of intelligence and symbolic machinery, cannot make explicit? (58, p. 192).²¹

The point is not to digress about artificial intelligence research, but to warn that despite a vast concentration of brainpower, the possibility of analyzing a cultural system in any complete sense and of discovering and describing its structure remains far on the horizon—and may forever remain so. To abstract out a level of “cultural symbols” in the way Schneider proposes seems to me to offer a spurious sense of escape from this dilemma. That the anthropologist’s mind can invent such a “level” attests to the remarkable powers that make humans human; but it does little to clarify how they perceive, think, and act.

It is partly Geertz’ realization that the cultural grammars of the “new ethnographers” are so impossible to achieve in the face of the vast intricacy of what humans know about their world—the subtle shadings of understanding and mood and meaning that defy representation in formal algorithms—that leads him to aspire at most to thick description, to interpretation rather than “decoding” or explanation. I disagree with him if that means abandoning to cyberneticians the task of progressively filling in those segments and sectors that yield to under-

¹⁹ Cybernetic modeling helps to clarify the relationship of “mind language” to “brain language”; but as Mackay (55, p. 465) argues, even if all operations of mind could ultimately be linked to processes of brain, there would still be an important need for “mind language.” Neurophysiological reductionism is as defeating as any other form of reductionism.

²⁰ “Good progress has been made in the art of programming. For instance, it took an automaton only a few minutes to prove over 200 theorems from Whitehead & Russell’s *Principia Mathematica*, some of these proofs being even more elegant than the known ones. But the robot’s ability has peculiar limits. For example, no automaton has so far been built which in the matter of reading handwritten addresses can match even a mediocre post office sorter. . . . Some functions . . . having a primitive and far from intellectual nature, are much more difficult to automate than certain other functions which we regard as typically intellectual. . . . *It is for those functions which take place unconsciously that no satisfactory automata have been built*” (74, p. 46; cf 17, 85).

²¹ Von Foerster’s cryptic remark expresses the same insight: “The Laws of Nature are written by man. The laws of biology must write themselves” (82, p. 5).

standing: they will do so less well without our collaboration than they would if we shared with them our insights into the varying patterns and richness of cultural experience. But I agree with him that as those enterprises advance we must remain rooted in the immediacies of interpreting real humans in real settings.

6. A final urgent argument for embedding an ideational conception of culture in the real social and ecological world is that “culture,” like other heuristic concepts of social science,²² should be potentially self-extinguishing. Like the linguists’ notion of competence, it may in the longer run turn out to be a scaffolding that needs to be dismantled when more solid and enduring structures can be built.

It remains an open question to what degree human action actually is guided by a general conceptual code, a theory of the world and the game of social life that can be disentangled from the particularities and immediacies of each individual’s unique experience and life space. John Haviland’s recent study of gossip in Zinacantan from a cognitive perspective poses important doubts:

We ordinarily have thought of one’s cultural competence as composed of codes. . . . The conceptual schemata have, we assume, an independent existence prior to any particular configuration of animals, any set of actual kin, any actual political operation. . . . But in gossip the . . . contingencies determine the general principles—for they are all there is. In gossip, the world becomes more than ideal schemes and codes. . . . Much of an actor’s cultural competence rests on a vast knowledge of contingent fact, raw unconnected trivia. . . .

Watching people operate on their cultural rules through gossip also shows us the folly of our belief that culture *provides* sets of ideal rules which apply to particular configurations of people, places, things, and events. The contingencies of life themselves restructure the rules, even change them in time. . . . In gossip . . . one’s whole understanding of the cultural code depends on the particular setting, on the configuration of past experience and knowledge, which is suddenly relevant to the application of rules and standards to the fact in question (43, pp. 279–80).²³

Do human actors conceptualize “the system” in some systematic way and use this generalized model to guide action and understanding in concrete social situations? If not, a generalized composite model of cultural competence will in the long run serve us badly in understanding performance in the concrete settings of real life. We do not yet know.

Haviland reaches a conclusion similar to Geertz’: that at least for the present, we can best aspire to understanding and interpretation, not to prediction and explanation. (Gossip, at once text and native commentary on texts, offers particularly rich insights.) Moreover, it may be precisely in exploring the phenomenological world of the familiar and immediate, the everyday and mundane, that we stand to gain the most crucial knowledge of how humans perceive, understand, and act.

²² See Bateson (10) on “dormitive principles” in social science.

²³ Quoted with permission from Dr. Haviland’s PhD dissertation (43), which is being extensively revised for publication as a book.

CONCLUSION

We need to work, I think, on many fronts. Interpreting cockfights in Bali and gossip in Zinacantan illuminates the human condition from one important perspective, even though—or perhaps *because*—what makes it possible for anthropologists and participants cannot be neatly codified. Studies of ritual and ecological adaptation in New Guinea illuminate another side, an interconnectedness we would, with less broad view of the systemic complexity of nature, have missed. At the same time, attempts to map cultures as ideational systems in the light of an emerging understanding of mind and brain should enable clearer insights into the organization of experience and the nature and depth of variation in the thought worlds of men.

Conceiving culture as an ideational subsystem within a vastly complex system, biological, social and symbolic, and grounding our abstract models in the concrete particularities of human social life, should make possible a continuing dialectic that yields deepening understanding. Whether in this quest the concept of culture is progressively refined, radically reinterpreted, or progressively extinguished will in the long run scarcely matter if along the way it has led us to ask strategic questions and to see connections that would otherwise have been hidden.

Literature Cited

1. Agar, M. 1973. *Ripping and Running: A Formal Ethnography of Urban Heroin Addicts*. New York: Seminar Press
2. Alland, A. 1972. *The Human Imperative*. New York: Columbia Univ. Press
3. Alland, A. 1973. *Evolution and Human Behavior*. New York: Doubleday. 2nd ed.
4. Arbib, M. 1973. *The Metaphorical Brain*. New York: Wiley
5. Bailey, F. 1969. *Stratagems and Spoils: A Social Anthropology of Politics*. New York: Schocken
6. Barnes, J. A. 1971. *Three Styles in the Study of Kinship*. London: Tavistock
7. Barth, F. 1966. Models of social organization. *Roy. Anthropol. Inst. Occas. Pap.* 23
8. Barth, F. 1966. Anthropological models and social reality. *Proc. Roy. Soc. B* 165:20-35
9. Barth, F. 1967. On the study of social change. *Am. Anthropol.* 69: 661-69
10. Bateson, G. 1972. *Steps to an Ecology of Mind*. Philadelphia: Intext
11. Binford, L. R. 1968. Post-Pleistocene adaptations. In *New Perspectives in Archaeology*, ed. L. R. Binford, S. R. Binford, 313-42. Chicago: Aldine. 373 pp.
12. Boon, J. A. 1972. *From Symbolism to Structuralism: Lévi-Strauss in Literary Tradition*. Oxford: Blackwell; New York: Harper and Row
13. Boon, J. A. 1972. Further operations of 'Culture' in anthropology: A synthesis of and for debate. *Soc. Sci. Quart.*
14. Bremermann, H. J. 1970. Principles of natural and artificial intelligence. In *Principles and Practice of Bionics*, ed. H. E. Von Gierke, W. D. Keidel, H. L. Oestreicher, 425-46. Slough, England: Technivision
15. Chomsky, N. 1959. Review of verbal behavior by B. F. Skinner. *Language* 35:26-59
16. Craik, K. J. W. 1943. *The Nature of Explanation*. Cambridge: Cambridge Univ. Press
17. Dreyfus, H. L. 1972. *What Computers Can't Do: A Critique of Artificial Reason*. New York: Harper and Row
18. Frake, C. O. 1964. A structural description of Subanun 'religious behavior.' In *Explorations in Cultural Anthropology*, ed. W. H. Goodenough, 111-29

- New York: McGraw-Hill
19. Freeman, J. D. 1970. Human nature and culture. In *Man and the New Biology*, ed. R. G. Slatyer et al, 50-75. Canberra: Aust. Nat. Univ. Press
 20. Freilich, M. 1972. Manufacturing culture: Man the scientist. See Ref. 21, 267-323
 21. Freilich, M., Ed. 1972. *The Meaning of Culture: A Reader in Cultural Anthropology*. Lexington, Mass: Xerox Corp.
 22. Geertz, C. 1957. Ritual and social change: A Javanese example. *Am. Anthropol.* 59: 991-1012
 23. Geertz, C. 1962. The growth of culture and the evolution of mind. In *Theories of the Mind*, ed. J. Scher, 713-40. Glencoe, Ill.: Free Press
 24. Geertz, C. 1964. Ideology as a cultural system. In *Ideology and Discontent*, ed. D. Apter, 47-56. Glencoe, Ill.: Free Press
 25. Geertz, C. 1965. The impact of the concept of culture on the concept of man. In *New Views on the Nature of Man*, ed. J. R. Platt, 93-118. Univ. Chicago Press
 26. Geertz, C. 1966. Religion as a cultural system. In *Anthropological Approaches to the Study of Religion*, ed. M. Banton, 1-46. London: Tavistock
 27. Geertz, C. 1966. *Person, Time and Conduct in Bali: An Essay in Cultural Analysis*. Yale Southeast Asia Program, Cult. Rep. Ser. No. 14
 28. Geertz, C. 1967. The cerebral savage: on the work of Claude Lévi-Strauss. *Encounter* 28: 25-32
 29. Geertz, C. 1972. Deep play: notes on the Balinese cockfight. *Daedalus* 101: 1-37
 30. Geertz, C. 1973. *The Interpretation of Culture*. New York: Basic Books
 31. Geertz, C. n.d. Common sense as a cultural system. Forthcoming in *Antioch Review*
 32. Goodenough, W. H. 1957. Cultural anthropology and linguistics. In *Report of the Seventh Annual Round Table Meeting on Linguistics and Language Study*, ed. P. Garvin. Washington, D. C.: Georgetown Univ. Monogr. Ser. Lang. and Ling. 9
 33. Goodenough, W. H. 1961. Comment on cultural evolution. *Daedalus* 90: 521-28
 34. Goodenough, W. H. 1963. *Cooperation in Change*. New York: Russell Sage Found.
 35. Goodenough, W. H., Ed. 1964. Introduction to *Explorations in Cultural Anthropology*, 1-24. New York: McGraw-Hill
 36. Goodenough, W. H. 1970. *Description and Comparison in Cultural Anthropology*. Chicago: Aldine
 37. Goodenough, W. H. 1971. *Culture, Language, and Society*. McCaleb Module in Anthropology. Reading, Mass: Addison-Wesley
 38. Gregory, R. L. 1969. On how little information controls so much behavior. In *Towards a Theoretical Biology*, Vol. I, ed. C. H. Waddington. Chicago: Aldine
 39. Gregory, R. L. 1970. Information processing in biological and artificial brains. In *Principles and Practice of Bionics*, ed. H. E. Von Gierke, W. D. Keidel, H. L. Oestreicher, 73-80. Slough, England: Technivision
 40. Harris, M. 1964. *The Nature of Cultural Things*. New York: Random House
 41. Harris, M. 1968. *The Rise of Cultural Theory*. New York: Crowell
 42. Harris, M. 1969. Monistic determinism: Anti-service. *Southwest J. Anthropol.* 25.2: 198-206
 43. Haviland, J. B. 1972. *Gossip, Gossips and Gossiping in Zinacantan*. PhD thesis. Harvard Univ., Cambridge. 281 pp.
 44. Hewes, G. W. 1973. Primate communication and the gestural origin of language. *Curr. Anthropol.* 14: 5-24
 45. Holloway, R. J. Jr. 1969. Culture: a human domain. *Curr. Anthropol.* 10: 395-407
 46. Homans, G. C. 1967. *The Nature of Social Science*. New York: Harcourt, Brace & Jovanovitch
 47. Keesing, R. M. 1970. Toward a model of role analysis. In *A Handbook of Method in Cultural Anthropology*, ed. R. Naroll, R. Cohen, 423-53. Garden City, NY: Natural History Press
 48. Keesing, R. M. 1972. Paradigms lost: the new ethnography and the new lin-

- guistics. *Southwest. J. Anthropol.* 28: 299-332
49. Keesing, R. M. 1974. Transformational linguistics and structural anthropology. *Cultural Hermeneutics*. In press
 50. Keesing, R. M., Keesing, F. M. 1971. *New Perspectives in Cultural Anthropology*. New York: Holt, Rinehart & Winston
 51. Laing, R. 1972. Artificial organisms and autonomous cell rules. *J. Cybern.* 2, 1: 38-49
 52. Lakoff, G. 1971. Presupposition and relative well-formedness. In *Semantics: An Interdisciplinary Reader*, ed. L. Jakobovits, D. Steinberg, 329-40. Cambridge Univ. Press
 53. LeVine, R. A. 1973. *Culture, Behavior, and Personality*. Chicago: Aldine
 54. Lévi-Strauss, C. 1971. *Mythologiques, IV: L'Homme Nu*. Paris: Plon
 55. MacKay, D. M. 1970. Digits and analogues. See Ref. 39, 459-66
 56. Meggers, B. J. 1971. *Amazonia: Man and Nature in a Counterfeit Paradise*. Chicago: Aldine
 57. Metzger, D., Williams, G. 1963. A formal ethnographic analysis of Tenejapa Ladino weddings. *Am. Anthropol.* 65: 1072-1101
 58. Miller, G. A. 1970. Four philosophical problems of psycholinguistics. *Phil. Sci.* June: 183-99
 59. Montagu, M. F. A., Ed. *Culture: Man's Adaptive Dimension*. London: Oxford Univ. Press
 60. Newell, A. 1970. Remarks on the relationship between artificial intelligence and cognitive psychology. In *Theoretical Approaches to Non-Numerical Problem Solving*, ed. R. Banerji, D. Mesarovic. Berlin: Springer-Verlag
 61. Norman, D. A., Ed. 1970. *Models of Human Memory*. New York: Academic
 62. Piaget, J. 1970. Piaget's Theory. In *Carmichael's Manual of Child Psychology*, ed. P. H. Mussen, 1: 803-32. New York: Wiley. 3rd ed.
 63. Popper, K. A. 1961. *The Poverty of Historicism*. London: Routledge and Kegan Paul
 64. Pribram, K. H., Broadbent, D. E., Eds. 1970. *Biology of Memory*. New York: Academic
 65. Rappaport, R. 1967. *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People*. New Haven: Yale Univ. Press
 66. Rappaport, R. 1971. Ritual, sanctity, and cybernetics. *Am. Anthropol.* 73: 59-76
 67. Rappaport, R. 1971. The sacred in human evolution. *Ann. Rev. Ecol. System.* 2:22-44
 68. Rappaport, R. 1971. Nature, culture, and ecological anthropology. In *Man, Culture and Society*, ed. H. Shapiro, 237-67. Oxford Univ. Press
 69. Rosch, E. 1974. Universals and cultural specifics in human categorization. In *Cross-Cultural Perspectives on Learning*, ed. R. Breslin, W. Lonner, S. Bochner. New York: Sage
 70. Ryle, G. 1949. *The Concept of Mind*. New York: Barnes and Noble
 71. Schneider, D. 1968. *American Kinship: A Cultural Account*. Englewood Cliffs, N. J.: Prentice-Hall
 72. Schneider, D. 1972. What is kinship all about? In *Kinship Studies in the Morgan Memorial Year*, ed. P. Reinig, 32-63. Washington, D. C.: Anthropol. Soc. Washington
 73. Schneider, D., Smith, R. 1973. *Class Differences and Sex Roles in American Kinship*. Englewood Cliffs, N. J.: Prentice-Hall
 74. Schuh, J. F. 1969. What a robot can and cannot do. In *Survey of Cybernetics: A Tribute to Norbert Wiener*, ed. J. Rose, 29-46. New York: Gordon and Breach
 75. Service, E. R. 1968. The prime-mover of cultural evolution. *Southwest. J. Anthropol.* 24.4: 396-409
 76. Singer, M. 1968. Culture. *Int. Encycl. Soc. Sci.* 3: 527-43
 77. Spradley, J. P. 1970. *You Owe Yourself a Drunk: An Ethnography of Urban Nomads*. Boston: Little, Brown
 78. Spradley, J. P. 1972. Foundations of cultural knowledge. In *Culture and Cognition: Rules, Maps, and Plans*, ed. J. P. Spradley, 3-40. San Francisco: Chandler. 400 pp.
 79. Tulving, E., Donaldson, W., Eds. 1972.

- Organization of Memory*. New York: Academic
80. Tyler, S. A. 1969. Introduction. In *Cognitive Anthropology*, ed. S. A. Tyler, 1-23. New York: Holt, Rinehart & Winston
81. Vayda, A. P., Rappaport, R. A. 1968. Ecology, cultural and noncultural. In *Introduction to Cultural Anthropology*, ed. J. A. Clifton, 477-97. Boston: Houghton Mifflin
82. Von Foerster, H. 1972. Responsibilities of competence. *J. Cybern.* 2, 2: 1-6
83. Wallace, A. F. C. 1965. Driving to work. In *Context and Meaning in Cultural Anthropology*, ed. M. E. Spiro. Glencoe, Ill.: Free Press
84. Wallace, A. F. C. 1970. *Culture and Personality*. New York: Random House. 2nd ed.
85. Walter, W. G. 1969. Neurocybernetics: communication and control in the living brain. In *Survey of Cybernetics*, ed. J. Rose. London: Gordon and Breach