

7 From relativism to cognitive science

Melford Spiro (1992), one of several critics of contemporary cultural relativism, defines three types: descriptive, normative, and epistemological. It is useful to follow his classification, and I shall outline each briefly here.

It is a truism that cultures differ one from another. With varying degrees of enthusiasm, anthropologists since the late nineteenth century have been ‘cultural determinists’, arguing that culture itself (and not merely biology) regulates the ways in which humans perceive the world. A corollary is that cultural variability will produce different social and psychological understandings among different peoples, and this position is called *descriptive relativism*. Virtually all schools of anthropology entail an acceptance of at least a weak form of descriptive relativism.

Normative relativism goes a step further in asserting that, because cultures judge each other according to their own internal standards, there are no universal standards to judge between cultures. Within normative relativism, we can distinguish two logically distinct forms: *cognitive relativism* and *moral relativism*. Cognitive relativism concerns descriptive propositions, like ‘The moon is made of green cheese’, or ‘Pop music causes headaches.’ It holds that in terms of truth and falsehood, all statements about the world are culturally contingent, and therefore non-culturally-contingent statements are simply not possible. In other words, all science is ethnoscience. Moral relativism concerns evaluative propositions, like ‘Cats are more beautiful than dogs’, or ‘It is wrong to eat vegetables.’ It holds that aesthetic and ethical judgements must be assessed in terms of specific cultural values rather than universal ones. It follows that in social and psychological terms, both appropriate behaviour and processes of thought (i.e., rationality) must also be judged according to cultural values. Boas and his followers, and to a lesser extent Evans-Pritchard and his, all espoused tenets of normative, and especially cognitive, relativism.

Epistemological relativism takes as its starting point the strongest possible form of descriptive relativism. It combines an extreme cultural-determin-

ist position with a view that cultural diversity is virtually limitless. It is important here to distinguish between *generic cultural determinism* (which holds that there is a universal but uniquely human cultural pattern within which cultures vary, i.e., the 'psychic unity' of humankind) and *particular cultural determinism* (which holds that there is no such thing). Epistemological relativists espouse the latter. They argue that human nature and the human mind are culturally variable. Therefore, they claim, both generalizations about culture and general theories of culture are fallacious.

The main concerns of the present chapter will be with 'relativism' as the term was understood prior to the rise of postmodernism; with offshoots, notably cognitive anthropology; and with certain strands of anti-relativism. The first great relativist in anthropology was Franz Boas, whose ideas were essentially of the descriptive relativist type. His follower, amateur linguist Benjamin Lee Whorf, embraced a form of cognitive relativism, as did later cognitive anthropologists and ethnoscientists. Early psychological anthropology of the 'culture and personality' school was characteristically associated with moral relativism. Epistemological relativism is strong in anthropology today, having emerged over the last thirty years or so in the hands of a diversity of thinkers in different countries. Clifford Geertz is perhaps the best-known proponent of it, but other interpretivist and postmodernist thinkers maintain more radical views. We shall return to radical epistemological relativism in chapter 10.

Franz Boas and the rise of cultural relativism

Classic cultural relativism emerged from the work of Franz Boas and his students. For the first half of the twentieth century it was the dominant paradigm of American anthropology. Some adherents (including Boas himself) stressed the richness of cultures then generally thought of as 'primitive', and several (again including Boas) used relativist ideology to argue the case against racism, anti-Semitism, and nationalist zealotry. Others developed their ideas through the study of the relation between language and culture, and still others, through psychological aspects of culture.

Boas was born in Westphalia in 1858. He studied physics and geography at Heidelberg and Bonn and took his Ph.D. at Kiel in 1881. It is said that his Ph.D. research, which was on the colour of water, led him directly to an interest in the subjectivity of perception. In 1883 he began fieldwork with the Inuit of Baffin Island with the intention of comparing their physical environment, measured 'objectively', with their own knowledge of it. He soon came to realize the importance of culture as a determining

force of perception, and consequently he rejected the implicit environmental-determinist position with which he had started. He also began learning the complex language of the Baffin Island people, recorded folklore and other aspects of their culture, and eventually published accounts of his work in both German and English. Boas returned to Germany in 1884, and in the following year he began to study the cultures of the North West Coast of North America, first through museum collections in Germany and then, from 1886, through field studies on the North West Coast.

Boas taught at Columbia University in New York City from 1896 to 1936, and his department quickly became *the* centre of anthropological research in the United States. He objected to evolutionism, mainly on the grounds that the task of anthropologists should be to gain first-hand experience in other cultures and not to speculate about their past. He also objected to the idea of racial and cultural superiority implicit in evolutionist writings. He countered this with an insistence on ethnographers conducting their fieldwork in the native language, and through use of the language, gaining an insider's view of the culture under study.

The title of his most famous book, *The Mind of Primitive Man* (Boas 1938 [first edition 1911]), perhaps now seems both evolutionist and sexist, but the book was written to oppose the incipient racism in America and in the world. Boas argues that the 'white race' is not intellectually superior, but just more advantaged than other 'races'. He cites the fact that many nations made contributions to the origins of world civilization. While seemingly accepting some aspects of evolutionism in his notion of 'the progress of culture', Boas rejects any biological basis for culture at all. In his view, language is independent of 'race', and culture is even more independent. He points also to the lack of comparability in data used to support evolutionism. He defines his 'primitive' people in a non-judgemental way: 'Primitive are those people whose forms of life are simple and uniform, and the contents and form of whose culture are meager and intellectually inconsistent' (Boas 1938: 197). He goes on to point out that different peoples are primitive or advanced in different respects. Australian Aborigines are poor in material culture but have a complex social structure. The Indians of California do superb artistic work, but their culture lacks complexity in other ways. He likens such differences to those between poor and rich in America and Europe. He adds that no people are untouched by foreign influences, and concludes that to assign a whole culture to a uniform category of 'primitive' or 'civilized' is pointless.

Most of Boas' work was of a more specific nature, on topics like art, mythology, and language, but he often addressed his anthropological

arguments to the general public. His influence was great, partly because of his early monopoly on the training of postgraduate anthropology students in North America, and partly because he wrote prolifically and in plain English. Boas wrote few books, preferring short articles (of which he wrote over 600). The best and most influential of these are included in two collections, one published during his lifetime (Boas 1940) and the other compiled many years after his death by one of his admirers (Stocking 1974). Boas died on 21 December 1942 at a luncheon being held in his honour. He uttered his last words, 'I have a new theory of race . . .', and before he could finish, collapsed and died in the arms of the person sitting next to him – the great French structuralist, Claude Lévi-Strauss.

Culture and personality

Culture was the abiding abstract interest of American anthropology from Boas to Geertz (with the latter steering clear of static abstraction in favour of a more dynamic approach). This does not mean that there has always been uniformity about what 'culture' is. In a famous overview, A. L. Kroeber and Clyde Kluckhohn (1952) cite over a hundred definitions by anthropologists, philosophers, literary critics, and others. They divide the anthropological definitions into six groups: descriptive (based on content), historical (emphasizing tradition), normative (emphasizing rules), psychological (dealing with learning or problem-solving), structural (having to do with pattern), and genetic (e.g., culture as a product of being human, or simply as that which non-human animals lack). To me, what comes out of their survey is the extraordinary range of perspectives on things which might make up culture. Ironically though, it is not the ideas of Boas or his followers that most anthropology students remember, but Tylor's (descriptive) definition of culture: 'that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society' (Tylor 1871, 1: 1).

While Tylor's definition has remained at the heart of considerations of culture in the abstract, the perspective which emerged as most crucial to its position as the quintessential anthropological concept was that of Ruth Benedict. The key text is her *Patterns of Culture* (1934), written no doubt under the guiding hand of Boas but with a greater emphasis on psychological aspects than in his work. Benedict's undergraduate education was in literature, and her early interest was poetry. Not long after her introduction to anthropology in 1919, she came to the conclusion that her colleagues were making all the wrong sorts of comparison. Just as poetry should be analysed in its cultural context, she argued, so too aspects of

culture should be seen in light of the culture in its entirety. She favoured comparison not of kinship terminologies or techniques of pottery-making, but of whole cultures seen through an understanding of their particular 'dominant drives'. In *Patterns of Culture* Benedict compares three peoples: the Zuñi of New Mexico (studied by Ruth Bunzel, Frank Cushing, and others), the Kwakiutl of Vancouver Island (studied by Boas), and the Dobuans of Melanesia (studied by Reo Fortune). She comes to the conclusion that what is normal behaviour in one culture is not normal in another. Even psychological states are culturally determined.

The Zuñi are a ceremonious people. They value sobriety and inoffensiveness above all other virtues. They have cults of healing, of the sun, of sacred fetishes, of war, of the dead, and so on. Each has its own priestly officials, who perform various ceremonies according to the seasonal calendar. The details of these ceremonies are important. If anything goes wrong, it can have adverse consequences: if a priest says a rain prayer in the wrong way, it is likely to be hot and sunny.

All this is very different from what happens among most other Native North American peoples. Benedict contrasts the Zuñi to them, using a distinction invented by the nineteenth-century philosopher and literary critic, Friedrich Nietzsche. He had distinguished two elements of Greek tragedy: the 'Apollonian' and the 'Dionysian'. The Apollonian aspect is that of measure, restraint, and harmony; the Dionysian aspect, that of emotion, passion, and excess. Greek tragedy, according to Nietzsche, had both. American Indian cultures, according to Benedict, have one or the other.

Zuñi are described as Apollonian. They live an ordered life. Everything is done precisely. They do not get worked up, go into trance, or hallucinate. They just perform their rituals as they always have done. They distrust individualism. Supernatural power comes not from individual experience, but from prior membership in a cult. Even in courtship there are absolute and rather tedious rules about what to say and how to say it. Traditionally, there is not meant to be any deep feeling between husbands and wives; they just abide by the rules of proper behaviour. Nor, at least in Benedict's account, do the Zuñi distinguish sharply between 'good' and 'evil'. They say that things just are the way they are.

Kwakiutl are described as the opposite – an example of a Dionysian culture. In their religious ceremonies the chief dancer goes into deep trance. He foams at the mouth, trembles violently, and typically has to be tied up with four ropes (each held by a different person) to keep him from doing any damage. In the past, the most sacred of all the Kwakiutl cult groups was the Cannibal Society. According to accounts by Boas and others, the cannibals would sing sacred songs and dance, while they ate

the bodies of slaves specifically killed for the purpose. In the absence of slaves, accounts claimed, the cannibals would just bite chunks out of the arms of the spectators, then vomit them up later.

Kwakiutl used to run their economy along similar Dionysian principles through the institution known as the potlatch. In the nineteenth century, the custom was that chiefs whose waters and lands produced well in a given year would hold great feasts to give away food and other items. Thereby they gained prestige over other chiefs and simultaneously spread their good fortune to members of other clans. In the period when potlatching was at its most extreme (around the turn of the century), people, through their chiefs, bartered away enormous amounts of subsistence goods in exchange for copper bracelets and blankets. This was not so they could give them away as they previously had done, but so they could destroy them. The more one gives away, the higher one's prestige. And if one can destroy things, they reckoned, one gains even more prestige. Better yet, destruction insults the guests. The chiefs and their retainers even sang 'hymns of self glorification' as they destroyed their wealth.

Dobuans are different again. Their highest virtues, Benedict suggests, are hostility and treachery. For example, marriage begins with the treachery of a young man's prospective mother-in-law. A boy will sleep with several girls in sequence. Then one morning, when he wakes up, the mother of whomever he is sleeping with will be standing in the door of her hut. The mother will give him a digging stick and force him to go to work for her, and that means he is married! This does not actually matter very much, because, it seems, almost everyone on Dobu commits adultery. When it is found out, there are violent quarrels, broken cooking pots everywhere, and suicide attempts. There is also sorcery. If anyone has a good crop of yams, it is assumed he must have performed sorcery against those whose yams have not grown well. The Dobuans live in a state of perpetual fear of each other, and (says Benedict) they regard this as normal.

So, what is normal for the Zuñi is not normal for the Kwakiutl. What is normal in Middle America is not normal for the Dobuans, and vice versa. In Western psychiatric terms, we might regard the Zuñi as neurotic, the Kwakiutl as megalomaniac, and the Dobuans as paranoid. In Dobu, paranoia is 'normal'. Of course, in presenting here just the juicy bits from Benedict's account, I have perhaps portrayed her argument as more extreme than she might have preferred. Yet her premise, that culture determines both what is regarded as correct behaviour and what is regarded as a normal psychological state, remains one of the strongest assertions of relativism in anthropology.

Using the same approach, Benedict herself went on to work with

Japanese immigrants in the United States during the Second World War (Benedict 1946). A number of others followed in her footsteps, notably Margaret Mead, a slightly younger contemporary at Columbia in the 1920s who published her first work in the field even before Benedict (Mead 1928; see also Mead 1930). Clyde Kluckhohn was another well-known figure, who applied Benedict's ideas on psychological aspects of culture in his ethnography of the Navajo (e.g., Kluckhohn 1944; Kluckhohn and Leighton 1974 [1946]). In the last couple of decades their work has come under fire, especially that of Mead on the supposed sexual freedoms enjoyed by Samoan adolescent girls (Freeman 1983). Mead had recorded on Samoa that premarital sex without loving attachment was regarded as normal, that adolescence was not marked by emotional stress, and that teenage rebellion did not exist there, and therefore that it is not a necessary result of the biological facts of puberty. Derek Freeman's alternative view suggests that all these generalizations are false. Yet to me what matters more is that Mead gained insights into American culture *through* her studies in Samoa and elsewhere. Although her writings were less explicit about 'personality' than Benedict's, Mead nevertheless became the most famous representative of the 'culture and personality' school. Her work marked the point of origin of psychological anthropology as we know it today (see, e.g., Bock 1980; 1988).

Primitive thought?

Do peoples who live in different cultures think differently? If so, are some ways of thinking more primitive than others? Can we say that some cultures are more primitive than others? The notion of 'primitive thought' has existed at least since the late nineteenth century, but in the twentieth century it has acquired new meaning. Among twentieth-century questions are: if 'primitive thought' exists, then does it exist only among 'primitive peoples', or is it found universally, perhaps deep within all cultures? Can 'primitive thought' be equated with 'rational thought', or is it different? Indeed is it *more* rational than the scientific thought of the Western world (as the most radical of the Boasians claimed)?

In order to explore these questions, we shall look next at the work of Lévy-Bruhl and Whorf, both active in the 1920s and 1930s. Their ideas are poles apart. Yet they touch on these questions in intriguing and enlightening ways. Then we shall take up briefly another side to relativism – within the 'rationality debate' which lasted roughly from the late 1960s to at least the early 1980s.

The anti-relativism of Lévy-Bruhl

The most important writer on 'primitive thought' was the French philosopher of the social sciences, Lucien Lévy-Bruhl. He rejected the notion of psychic unity and argued that primitive thought is qualitatively different from logical thought. It is not different because it is illogical, but because, in his view, it is *pre*-logical. Its 'pre-logical' nature is defined simply by the presumed absence of a separation of cause and effect. Although part of the *Année sociologique* school and in some respects a functionalist, Lévy-Bruhl's views are better characterized as evolutionist and anti-relativist.

Lévy-Bruhl wrote six books on 'primitive thought', as well as other books and articles on philosophical and political topics. The bibliographical details are not so important, but the French titles of his works on 'primitive thought' are interesting because they hint at his views with regard to the very concept of 'the primitive'. They include: *Les fonctions mentales dans les sociétés inférieures* (translated into English as *How Natives Think*), *La mentalité primitive* (*Primitive Mentality*), *L'âme primitive* (*The 'Soul' of the Primitive*), *Le surnaturel et la nature dans la mentalité primitive* (*Primitives and the Supernatural*), *La mythologie primitive* (not yet translated), and *L'expérience mystique et les symboles chez les primitifs* (not yet translated).

In *How Natives Think*, Lévy-Bruhl (1926 [1910]) divided human thought into just two categories, that of 'primitive mentality' and that of 'higher mentality'. The 'primitive' thinks logically enough in everyday situations, but cannot think logically in the abstract. For example, in 'primitive' cultures one's soul may be equated with one's shadow. The 'primitive', in general, is afraid of phenomena such as shadows because, says Lévy-Bruhl, he or she cannot distinguish between an object and what that object symbolically and mystically represents. A man from Aboriginal Australia does not have a notion of land ownership, since he cannot conceive of himself as being separated from his land. Or, when a South American Indian says she is a parrot, she does not mean (as we would now say) she is a member of the parrot totem. She means that there is an identity between herself and a bird. In the Indian's own view, apparently, she really is a parrot.

For Lévy-Bruhl, 'primitive thought' also differs from logical thought in that it is a product of collective, not individual, thinking. Like other French anthropologists of his time, he frequently referred to the *représentations collectives* (collective representations) of peoples. Durkheim, Mauss, and Lévy-Bruhl alike opposed the idea that one can reduce collective action to the actions of a number of individuals, or a culture as a whole to the ideas of each individual bearer of that culture. Yet in

Lévy-Bruhl's case, this applied only, or at least predominantly, with reference to pre-literate cultures, as he regarded the mentality of those cultures with literacy as more individualistic. There is a consistency on this through Lévy-Bruhl's books; yet his private notebooks tell a different story.

Wherever he went, Lévy-Bruhl carried thin, black oilcloth, lined notebooks. Each section had a title, and at the bottom of each page was a note of the date and the place the notes were written. Happily, the notebooks of the last year of his life (1938 to 1939) survived the Second World War, and they indicate an interesting transformation of Lévy-Bruhl's theory. He did not give up the idea of primitive mentality, but he significantly altered its definition. On 29 August 1938, for example, Lévy-Bruhl jotted in his oilcloth pad:

let us rectify what I believed correct in 1910: there is not a primitive mentality distinguishable from the other by *two* characteristics which are peculiar to it (mystical and prelogical). There is a mystical mentality which is more marked and more easily observable among 'primitive peoples' than in our own societies, but it is present in every human mind. (Lévy-Bruhl 1975 [1949]: 100-1)

In other words, it is not the logic which is different, but the knowledge. Cultures are not different in kind, but only in degree.

Chronologically, Lévy-Bruhl's ideas were developed in parallel with those of Boas, Benedict, and Mead – all of whom held romantic attachments towards alien cultures. Lévy-Bruhl's writings challenged their romanticism. They also inflicted a philosophical debate into anthropology which anthropologists of the day were neither equipped to handle nor, in many cases, anxious to argue. Yet Lévy-Bruhl's ideas did make anthropologists think. Looking back on them today, we can see them in light of the work of more recent writers, like Lévi-Strauss. He in some ways follows Lévy-Bruhl (e.g., in distinguishing a profound difference between pre-literate and literate cultures), but in other ways represents an opposite position (e.g., in imputing psychic unity through the notion of *esprit humain*, sometimes translated 'collective unconsciousness').

Lévy-Bruhl still has some admirers, if very few followers. One who does write in the same vein is Christopher Hallpike. He has argued (e.g., 1979: 50-1) that Lévy-Bruhl's work would have been yet more valuable had Lévy-Bruhl been aware of the possibilities of cognitive psychology. Hallpike himself has likened 'primitive thought' to the thought processes of children constructing a correct understanding of the world. He takes his basic ideas from the Swiss psychologist Jean Piaget, but true to his anthropological understanding he develops the notion of 'primitive thought' through the analysis of collective representations.

The linguistic relativism of Whorf

The implication throughout Lévy-Bruhl's work (even in the notebooks) is that 'primitive peoples' are intellectually inferior to people like 'ourselves'. Taking these two categories as given, consider the alternatives.

- (1) 'Primitive peoples' are intellectually the same as 'ourselves'.
- (2) 'Primitive peoples' are intellectually different, but neither inferior nor superior.
- (3) 'Primitive peoples' are intellectually superior to 'ourselves'.

The first two represent views which lie in-between the evolutionist position and the radical relativist one. The third, representing a radical relativism playing as inverse evolutionism, is more interesting than either, because it provides such a sharp contrast to the peculiar brand of evolutionism promoted by Lévy-Bruhl. It is a view best represented by Benjamin Lee Whorf, chemical engineer and amateur anthropological linguist of the Boasian tradition.

Before Boas it had been thought that languages were all pretty much alike. If one knew Greek or Latin grammar, one could describe any language in the world. The Boasians showed that in many respects this is not the case. Inuit and Amerindian languages are much more complex than Greek or Latin. Some have as many as seventeen 'genders', which can be used to make puns, and, no doubt, to confuse the never-ending stream of anthropologists who have gone to study them. Whorf came up with the idea that people who speak such languages have different ways of looking at the world from people who speak simpler languages, like English.

The 'Sapir-Whorf hypothesis', as this idea became known, bears the name of both Whorf and his mentor. (Edward Sapir was himself a student of Boas and a practitioner of both 'culture and personality' studies and anthropological linguistics.) In principle, the hypothesis suggests that there are not just two forms of thought, 'ours' and 'theirs', but a multiplicity of forms of thought, each associated with the language of its thinkers. However, in practice Whorf tended to talk about two main examples which can be taken as exemplary of wider patterns: thought as expressed in the English language, and thought as expressed in the languages of Native North Americans.

The similarities and contrasts between Lévy-Bruhl and Whorf come across well through a comparison of *How Natives Think*, part II (Lévy-Bruhl 1926 [1910]: 137-223), which deals with grammar and counting, and two essays in *Language, Thought, and Reality* (Whorf 1956 [written c. 1936]: 57-86), which deal with relations between expression and

thought in 'primitive communities'. Lévy-Bruhl and Whorf did not disagree about the data. Their ideas converge in that they both understood the concrete complexity of grammar in the languages of so-called 'primitive' peoples. Where they differed significantly was in their deeper interpretation of that phenomenon.

The same example can be used to support either side of the argument. Take this one (paraphrased from Lévy-Bruhl (1926 [1910]: 143)). It illustrates the verbal prefixes and suffixes in the language of the Kiwai Islanders of Melanesia:

<i>rudo</i>	action of two on many in the past,
<i>rumo</i>	action of many on many in the past,
<i>durudo</i>	action of two on many in the present,
<i>durumo</i>	action of many on many in the present,
<i>amadurodo</i>	action of two on two in the present,
<i>amarudo</i>	similar action in the past,
<i>amarumo</i>	action of many on two in the past,
<i>ibidurudo</i>	action of many on three in the present,
<i>ibidurumo</i>	similar action in the past,
<i>amabidurumo</i>	action of three on two in the present, and so on.

To Lévy-Bruhl, the concreteness of these forms reflected a 'primitive' way of thinking – a lack of abstract thought. To Whorf, such constructions implied great linguistic sophistication. In this example, each word may be divided into morphemes, that is, smaller units of meaning which can be put together to form longer words (*ru-*, *-do*, *-mo*, *du-*, etc.). To a Whorfian, the real concreteness is in these individual morphemes, and the ability to put them together entails abstract thought. Another contrast between the two is in their understanding of directionality in the relation between language and thought. Both believed that language and thought are related. To Lévy-Bruhl, language reflects thought. Among 'primitives', grammatical categories are built up on the basis of 'primitive thought'. However, to Whorf, thought reflects pre-existing linguistic categories. People think only through these categories, and never independently of them.

Whorf realized the possibility that the categories of the English language are not necessarily better than those of other languages. In fact, he went further than that. He envied the Hopi for their ability to think in ways 'in advance' of his own. He argued that Hopi grammar is better suited to the expression of scientific ideas than English is (see especially Whorf 1956: 59–60, 85). Specifically, the metaphysics underlying English supposes two cosmic forms: space and time. Space is infinite, three-

dimensional, and static. Time moves in one direction, and it is divided into past, present, and future. The metaphysics underlying Hopi supposes two quite different cosmic forms: objective (manifested) and subjective (manifesting). The former includes the physical universe as experienced through the senses, and also past and present. The latter includes that which exists in the mind, including the Mind of the Cosmos itself, and also what English would characterize as the future tense.

Criticisms of Whorfianism

But is Whorfianism the answer? Did Whorf really explain the relation between language and culture, and the difference between different modes of thought? In fact Whorf has been criticized on several grounds. Let me take a few of the criticisms which have been suggested.

First, some of Whorf's published ideas on the relation between language and culture are just too simplistic. (Indeed Whorf, who disclosed some of his most radical statements in non-linguistic, non-anthropological journals, such as *Technology Review*, the promotional magazine of Massachusetts Institute of Technology, may have realized this.) It is easy to refute Whorf's simplistic notion that language determines thought. Peoples of similar culture sometimes speak very different languages. Speakers of Basque are similar in culture to their French- and Spanish-speaking neighbours. On the other hand, peoples who speak closely related languages can have quite different cultures. Navajo and Apache both speak languages of the Southern Athapaskan group, but the Navajo (culturally but not linguistically influenced by the Hopi) lived in permanent, scattered settlements and were, in early Euro-American contact times, largely peaceful. Their famous artwork is of Hopi origin. The Apache were more nomadic, with an economy based on hunting, gathering, some farming, and raiding. Neither group had a centralized political authority, but the Apache developed a hierarchy of leadership for purposes of raiding and warfare. Their cultures were different, but did they, or indeed do they, think similarly because they speak closely related languages? That question remains open.

Secondly, Whorf's ideas overemphasize linguistic difference. Whorf (along with Sapir, e.g. 1949 [1915-38]: 167-250) was among the first to make systematic studies of Amerindian languages which did not have Euro-centric categories as the foundation of the analysis, and therefore probably among the first outsiders to appreciate the great richness of expression in these languages. However, the pendulum has now swung the other way. Since the 1960s linguists have tended to emphasize universal aspects of language. For example, all peoples speak in sentences, and

these are by definition made up of noun phrases and verb phrases. Thus Nootka may not be quite as different from English as Whorf thought it was; and, following his hypothesis, Nootka- and English-speakers may not be as different in their modes of thought.

Thirdly, what evidence do we really have that language determines thought? Whorf's evidence in favour of it is entirely inferential and based on language itself, with little or no attempt to test language against cognition. Proof of the Sapir-Whorf hypothesis would be hard to come by, though linguists are today working on it (see Lucy 1992).

Fourthly, if the thought patterns related through different languages are as different as Whorf suggests, then can a non-Hopi ever understand how a Hopi thinks? If not, then how can we ever compare modes of thought? Though 'weak' versions of the Sapir-Whorf hypothesis remain credible in the eyes of many, the 'strong' version championed by Whorf has never been sustainable. In its essence it denies the possibility of anthropological comparison.

The rationality debate

Since the late 1960s there has been a sporadic resurgence of interest in the question of 'primitive thought', or more accurately, in the question of rationality among 'primitive' peoples. A number of philosophers, sociologists, and anthropologists have participated in the debates, which have been played out at various conferences and in edited collections. The most important of these collections are Bryan Wilson's *Rationality* (1970) and Martin Hollis and Steven Lukes' *Rationality and Relativism* (1982). The former was put together mainly from papers originally published during the 1960s, while the latter consists mainly of specially written papers explicitly designed to supplement and amplify those in the Wilson volume. The former uses ethnographic data, mainly African and 'classic', whereas the latter explores the problem through pre-modern Western science as well.

Let me use just two papers from the latter volume as exemplars of approaches which move beyond a simple 'yea' or 'nay' answer to the question of rationality: those by Dan Sperber and Ernest Gellner.

Sperber (1982) classifies the broadly relativist traditions in social anthropology as either 'intellectualist' or 'symbolist' (see Skorupski 1976). Intellectualists argue that apparently irrational beliefs are not so irrational after all; rather, they are simply mistaken. For example, people believe that the earth is flat because they experience it as such. Symbolists argue that myths, rituals, and so on are only irrational at a literal (and superficial) level. As metaphors for moral values, or whatever, they may be

perfectly rational. Sperber's earlier *Rethinking Symbolism* (1975 [1974]) had been an attack on symbolist approaches (Victor Turner, Claude Lévi-Strauss, etc.). Put simply, there he argued that symbolism is a creative mechanism which produces meaning beyond established structures of understanding, and in so doing, helps to develop these very structures. In his 1982 article he does much the same with regard to extreme relativist views. Apparently irrational beliefs are not 'beliefs' at all; they involve a different psychological state. What is more, they are not irrational; they are (in his view) often simply ways of speaking about the world. It is perfectly rational to speak about the world in the same way as do other members of your own culture.

Gellner (1982 [1981]), a staunch anti-relativist, argues here that relativism and the existence of human universals are not incompatible. He defines relativism as 'a doctrine in the theory of knowledge [which] asserts that there is no unique truth' (1982: 183). He targets both cognitive and moral relativist statements, and argues both epistemological and sociological cases against the equation of relativism with diversity. His argument is complex. Essentially, he says that the problem of relativism is whether there is only one world, whereas the problem of universals is philosophically different. Moreover, the search for universals is itself not a universal but is culturally specific (it is found not among all peoples, but, for example, among the sort of people who might read this book). Yet such a search *is* accessible to all human beings, and its diffusion (present-day theorists would say 'globalization') is taking place.

In practice, most relativists in anthropology have been more interested in cultural diversity than in universals. Lévi-Strauss, to the extent to which he is the relativist some of his critics say he is, may be the exception (see chapter 8). In these crucial articles, what both Sperber and Gellner have done is to set aside the philosophical question of relativism by showing its irrelevance to the weak relativist streak in anthropological writing. The fact that other cultures view the world differently from one's own is not, in itself, grounds for seeing all alien understandings as either 'irrational' or expressing valid alternative 'truths'. The existence of human universals does not make relativism untenable; nor does human diversity make it tenable.

Towards cognitive science

After Whorf's untimely death in 1941, within anthropology there was a lull in interest in the topics he studied. When interest in the linguistic aspects of culture re-emerged in the 1950s, the theoretical emphasis in linguistics had changed from the descriptive (pioneered by Boas and

Table 7.1. *Approximate correspondences between words for 'tree', 'woods', and 'forest' in Danish, German, and French*

Danish	German	French
træ (tree, trees)	Baum (tree)	arbre (tree)
	Holz (woods)	bois (woods, woodland)
skov (woods, woodland, forest)	Wald (woodland, forest)	forêt (forest)

Sapir) to the structural. Ideas drawn from structural linguistics entered anthropology both through structuralism and through the more relativistic concerns of anthropologists interested in aspects of classification. Our concern here will be with the latter.

Structural semantics

Take these famous examples from the work of Danish linguist Louis Hjelmslev (1953 [1943]: 33-4): dark colours and clumps of trees. The terms for dark colours in Welsh differ from those in English, as Welsh has fewer terms. Welsh *gwyrdd* covers fewer shades than the English colour term *green*. Welsh *glas* covers some shades classified by English as *green*, all of *blue* and some of *grey*. *Llwyd* covers some of *grey* and some of *brown* (cf. Ardener 1989 [1971]: 9-12).

Similarly, when we compare words for 'tree', 'woods', and 'forest' in Danish, German, and French, we see a lack of exact correspondence, even between German and French, which have the same number of terms. This is illustrated in table 7. 1. (Note here the distinction between English words in inverted commas, when English itself is an example, and in italics, when the English words are used as approximate glosses for foreign terms.) The French category *bois* (roughly 'wood', 'woods' or 'woodland') is wider than the German *Holz* (roughly 'wood' or 'small wooded area'). The French category *forêt* (meaning 'forest'), like its English equivalent, is narrower than the German *Wald* ('woodland' or 'small forest'). To say 'forest' in the French or English sense, a German would normally specify a *großer Wald* ('larger forest').

No language classifies everything. For colours, it would be impossible, since there is an infinite degree of natural variation in both the wavelength of light (red to violet) and the intensity of light (dark to light). Languages make meaning by making structure, and cultures do the same. Sometimes the structure is explicitly linguistic, as in the case of colour classification or words for things to do with trees. At other times, it is not, as for example in rules of etiquette or appropriate styles of dress.

Cognitive anthropology

American linguist Kenneth L. Pike made a great breakthrough in 1954 when he published the first part of an essay of 762 pages called *Language in Relation to a Unified Theory of the Structure of Human Behavior* (completed as Pike 1967). He took the idea of the relation between *sounds* (the phonetic) and *meaningful units of sound* (the phonemic) and postulated a more general relation between *units of any kind* (the etic) and *meaningful units of any kind* (the emic). Phonetics involves the study of all the sounds that humans can make. Phonemics (phonology) concerns sounds distinguished by contrasts with other sounds in a given language. Thus the theory which accounts for differences between sets of sounds in, say, Spanish and Portuguese, could be applied to differences between sets of words in Spanish or Portuguese, or indeed any other level of linguistic or cultural phenomena.

To put it another way, the etic is the level of universals, or the level of things which may be observed by an 'objective' observer. The emic is the level of meaningful contrasts within a particular language or culture. We can explain emic distinctions in terms of various frameworks or grids. Classic examples include Linnaean taxonomy; disease, in medical science; the measurement of the wavelength of light; the chromatic scale in music; and above all, the genealogical grid. While some radical relativists have questioned the universality of such grids, nevertheless their purported existence does highlight the difference between a postulated extra-cultural universal and one's own cultural framework taken (erroneously) as universal (see Headland, Pike, and Harris 1990).

The precise meaning of 'emic' has long been a subject of debate. Harris (1968: 568-604) saw it essentially as equatable with informants' statements, whereas Pike (1967: 37-72) emphasized instead the structured nature of the emic system. Just as informants cannot necessarily describe the grammatical rules behind their own use of language, so too they might be unable to describe the emic system which underlies their cultural understandings and practices. The discovery of that system is the task of the analyst, not the informant.

After Pike's pioneering work, anthropologists tried to formalize the relation between emic and etic categories. Complex methodologies were developed and debated. Following Ward Goodenough's (1956) famous paper on the relationship terminology of the inhabitants of the Truk Islands of Micronesia, several turned their attention to kinship. Emic structures are probably more transparent in relationship terminologies than in any other cultural domain. In them one can easily distinguish 'denotata' (the elements which make up a given class, in this case genealogical points of reference), from 'significata' or 'components' (the principles which distinguish the class), from 'connotata' (principles which, though not defining a class, are loosely associated with it), from 'designata' (the names of classes), from a class or classes of things themselves.

Using English as our example, take the class of kin which English-speakers call *uncle*. The designatum here is the word *uncle* itself. The denotata are genealogical points of reference FB, MB, FZH, MZH, and so on (that is, father's brother, mother's brother, father's sister's husband, and mother's sister's husband; denotata are customarily abbreviated in this way). One could define any class simply by listing all its members, but this is hardly satisfactory. Much more useful is an understanding of the principles of classification, and these are indicated in the significata or components. For the class designated *uncle*, the components are 'male' (to distinguish an uncle from an aunt), 'first ascending generation' (to distinguish an uncle from a nephew), 'consanguineal or consanguine's spouse' (to distinguish an uncle from a father-in-law), and 'collateral' (to distinguish an uncle from a father). By specifying each of these four components, we define what it means to be an *uncle*. Yet in addition to such signification, it is sometimes useful to consider the connotations (connotata) of being an uncle, for example, the characteristic features of 'avuncular' behaviour, whatever that might be in particular. These are not part of the componential analysis proper, but they do hint at its limitations.

Another limitation of componential analysis is the fact that we can have more than one correct analysis for any given set of terms. This is illustrated in table 7. 2, where two different analyses of the English terminology for consanguines (i.e., 'blood' relatives) are shown.

These two componential analyses differ in the technical understanding of the lineal/collateral or direct/collateral distinction and in the hierarchical relation between different distinctions of generation. The first representation (based loosely on that of Wallace and Atkins, 1960) is perhaps the most formally correct. Yet its precise distinction between 'lineals' (defined as ego and his or her ancestors and descendants), 'co-lineals' (siblings of lineals), and 'ablineals' (descendants of siblings of lineals)

Table 7.2. *Two componential analyses of English consanguineal kin term usage*

Componential analysis 1				
LINEALS		CO-LINEALS		ABLINEALS
male	female	male	female	
+2 grandfather	grandmother			
+1 father	mother	uncle	aunt	
0	EGO	brother	sister	cousin
-1 son	daughter	nephew	niece	
-2 grandson	granddaughter			

Componential analysis 2				
	DIRECT		COLLATERAL	
	male	female	male	female
Generation 2	+ grandfather	grandmother		
	- grandson	granddaughter		
Generation 1	+ father	mother	uncle	aunt
	- son	daughter	nephew	niece
Generation 0	brother	sister		cousin

seems pedantic and counter-intuitive to me. The second (based on that by Romney and D'Andrade, 1964) was hailed in its time as a psychologically 'real' representation, that is, one which captures in its formal distinctions the thought processes of English-speaking people when they classify their kin. Yet for me as a native speaker of English, the placement of grandparents with grandchildren, of parents with children, and of 'generation 0' by itself, seems to make less sense than the placement of the generations from senior to junior.

The variant examples of table 7. 2 show that there is always an element of indeterminacy in componential analysis, and that indeterminacy results from its reliance on lexical structures over actors' perceptions. Though this may be a limitation in some sense, it need not necessarily be very problematic, as long as we are prepared to accept (as postmodern relativists do) that different people, even in the same culture, think in different ways. In linguistics, many scholars hold to the view that the best grammatical analysis is the one which is simplest, whether it is most real

to the native speaker or not. There is a place for the alternative view that the best is precisely the one which is most meaningful to the native speaker (while also being formally correct, of course). If native speakers disagree about which one this may be, then so be it. The debate which ensued on this issue is called that of 'God's truth versus hocus-pocus', with the 'God's truth' side favouring the search for cognitive reality and the 'hocus-pocus' side maintaining a scepticism of this very possibility. The debate was played out in the pages of the *American Anthropologist* between 1960 and 1965, and the key papers are included within Stephen Tyler's edited collection, *Cognitive Anthropology* (1969: 343-432).

Ethnoscience

There are two quite different threads of relativist thinking in anthropology today. For convenience these might be labelled the modernist and the postmodernist perspectives. The modernist perspective follows from earlier concerns with formal properties of thought, such as those of the cognitive anthropologists of the 1960s. It therefore follows a formalist methodology (seeking form or pattern in modes of thought) and is most prevalent in the study of scientific thought in traditional cultures, such as in ethnozoology and ethnobotany. The postmodernist perspective rejects formalist methodology altogether in favour of an interpretivist one, which focuses on the interaction of individuals and the negotiation of cultural categories (see chapter 10).

The modernist strand alive today is the culmination of the Whorfian position. In the 1960s proponents of cognitive anthropology took up Whorf's concern of the relation between modern, Western science and the indigenous worldviews they studied. They called their field 'ethnoscience'. That term did not always designate anything at all different from 'cognitive anthropology' (which was how some still saw their enterprise), from 'componential analysis' (which remained their main methodology), or from 'the new ethnography' (a catchword coined in the 1960s to make the comparison between their work and 'the new archaeology' of Lewis Binford). Today however, 'ethnoscience' tends to designate a specialization more than a theoretical perspective – namely the specialized concern with indigenous knowledge systems such as ethnobotany, ethnozoology, ethnomedicine, and so on (see, e.g., Berlin 1992; Ellen 1993). For that matter, the old label 'new ethnography' has in recent times been applied to postmodernist perspectives.

The foremost proponent of ethnoscience in its broadest sense, Charles Frake, has explored both the esoteric and the mundane in his works on ecological systems, interpretations of illness, concepts of law, how to

enter a house, and how to ask for a drink in the Subanum, Yakan, and other cultures of the Philippines (see, e.g., Frake 1980). As these examples show, Frake's ethnoscience takes social action as well as the static categories of ethnoscientific discourse into account. Strategies and decision-making come into play. This is true even in the methodology he has espoused, as he makes explicit the eliciting techniques he employs. He shares this view with some of postmodern persuasion. Yet his approach, developed in the 1960s long before postmodernism came into anthropology, differs from postmodernism in its recognition of indigenous, culturally agreed categories, which are to be 'discovered' by an ethnographer through careful question-and-answer sessions.

While some in this tradition do take Western science as a baseline, others (including Frake) prefer to examine the modes of classification employed in traditional societies without necessary regard to such a baseline. Some have even examined Western science itself as a cultural tradition. Scott Atran's (1990) study of the 'folk biology' basis of natural history, from Aristotle to Darwin, is a good example. In its earliest days, ethnoscience was closely tied to linguistics, but in the hands of more recent practitioners it has gradually moved more towards cognitive psychology and now threatens to link up with interests not that far removed from those of the culture and personality school with which it has long been associated (cf. Bloch 1991; D'Andrade 1995: 182-243).

One approach which recognizes the existence of truth in science but nevertheless recognizes also social and cultural determinants within it, is the prevailing perspective of medical anthropology. Cecil Helman's (1994 [1984]) excellent overview of that field cites hundreds of studies in medical science and anthropology to illustrate the cultural, as well as the biological, construction of stress, pain, psychological disorders, and epidemiology. In the last instance, for example, North American psychiatrists are more prone to diagnosing 'schizophrenia' than those in Britain. Likewise, a North American doctor will diagnose 'emphysema' where a British doctor reads the same symptoms as 'chronic bronchitis'. Similar variations have been found in comparative research across Europe (Helman 1994: 270). This does not mean that modern medicine is fallacious (Helman himself is a practising physician), but that culture is everywhere – even in the 'rituals' which surgeons perform in the operating theatre (cf. Katz 1981).

Concluding summary

Boas founded a new anthropology based broadly on relativist principles, or at least on principles emphasizing culture difference and the moral

worth of different understandings of the world. Like the functionalists he challenged the old order, but the anthropology which emerged in Boasian America was (for a time) profoundly different from that of Malinowskian, Radcliffe-Brownian Britain. The strongest proponents of relativism were, in their different ways, those of the 'culture and personality school' and the proponents of the 'Sapir-Whorf hypothesis'. Yet the difference was as much one of interest (psychology or language) as of theoretical position.

One of the offshoots of Boasian anthropology has been the interest in cognitive aspects of classification. This interest highlights the sharp divide between the Boasian emphasis on culture as a way of thinking and the Radcliffe-Brownian emphasis on it as a minor adjunct to social structure. The Kroeber/Rivers/Radcliffe-Brown debate on kinship terms discussed in chapter 5 can be seen in these terms. Kroeber's position is in the tradition of Boas and Sapir, and foreshadows the central concerns with the 'emic' in the work of Pike, Goodenough, Frake, and the ethnoscientists of recent times. As we shall see in the next chapter, the structuralism of Lévi-Strauss was to combine elements of both cognitive and social-structural approaches. But, against Boas and his cultural particularism, it would place the emphasis once more on universals.

FURTHER READING

Important works in the Boasian tradition include Boas' *The Mind of Primitive Man* 1938 [1911] and *Race, Language, and Culture* (1940), Lowie's *Primitive Society* (1947 [1920]), Kroeber's *Anthropology: Culture Patterns and Processes* (1963 [1948]), and Kroeber and Kluckhohn's *Culture: A Critical Review of Concepts and Definitions* (1952). The classic text on 'culture and personality' remains Benedict's *Patterns of Culture* (1934). For critical commentaries on the Boasians and the 'culture and personality' school, see Stocking's collections (respectively 1986; 1996b). Boas, Lowie, Kroeber, Benedict, and Mead are all the subject of contemporary or more recent biographical works.

A good overview of relativist thought with reference to the 'rationality debate' is Hollis and Lukes' 'Introduction' to *Rationality and Relativism* (1982: 1-20). Gellner's (1985) *Relativism and the Social Sciences* is also relevant and includes his essay discussed here, 'Relativism and universals'. Two other books, each bearing the title *Modes of Thought* but published a quarter-century apart, together offer an insight into changes in the perception of such modes (Finnegan and Horton 1973; Olson and Torrance 1996).

The classic edited collection on 'cognitive anthropology' is the one by that title, edited by Stephen Tyler (1969). A relatively recent rethink of the Whorfian hypothesis is Lucy's *Language Diversity and Thought* (1992). See also D'Andrade's excellent overview, *The Development of Cognitive Anthropology* (1995).