

HUMAN UNIVERSALS, HUMAN NATURE, HUMAN CULTURE

By Donald E. Brown

Human universals--of which hundreds have been identified--consist of those features of culture, society, language, behavior, and mind that, so far as the record has been examined, are found among all peoples known to ethnography and history. After presenting some of the basic conceptions and problems concerning such universals per se--their kinds and causes and the methodological and disciplinary considerations that have shaped their study, this paper explores some of the issues in how human universals relate to human nature and human culture. Particular attention will be given to those universals that are directly related to, or actually comprise, human nature. In addition to the intrinsic interest such universals invoke--because they underlie all human activities--they also promise to yield to a more theoretically informed framework for their study than has been the case for human universals in general. Examples of universals will be given along the way.

KINDS OF UNIVERSALS

To begin with a few examples of human universals, those in the cultural realm include myths, legends, body adornment, daily routines, rules, concepts of luck and precedent, and the use and production of tools; in language there are grammar, phonemes, polysemy, metonymy, antonyms, and an inverse ratio between the frequency of use and the length of words; in the social realm there are a division of labor, social groups (including thinking of them as entities or agents), age grading, the family, kinship systems, ethnocentrism, play, exchange, cooperation, and reciprocity; in the behavioral realm there are aggression, gestures, gossip, and facial expressions; mentally there are emotions, dichotomous thinking, wariness around or fear of snakes, empathy, and psychological defense mechanisms.

Many universals do not fall neatly into one or another of these conventional realms, but cut across them. Kinship terminologies (in English, the set of terms that includes "father," "mother," "brother," "sister," "cousin," etc.) are simultaneously social, cultural, and linguistic. The concept of property is social and cultural. Revenge is both behavioral and social. Lying and conversational turn taking are simultaneously behavioral, social, and linguistic. Many behavioral universals almost certainly have distinctive--even dedicated--neural underpinnings, and thus are universals of mind too.

A distinction among universals that figures large in anthropological thought is the

distinction between “emic” and “etic.” These terms--taken from the linguistic terms “phonemic” and “phonetic”--distinguish features that are overtly or consciously represented in a people’s own cultural conceptions from features that are present but not a part of the overt or conscious local cultural conceptions. Thus every people has a language with grammar, but not all peoples have an overt cultural representation of the idea of grammar. Having grammar is an etic fact. If it is culturally represented, then it is an emic fact too. Etically, everyone has a blood type, but having blood types as a part of culture--as in the case of those Japanese beliefs that link blood types with marital compatibility--is far from universal. The general point is that emic universals are probably much rarer than etic universals. Etically, everyone has a father; but a single kin term designating just this kinsman--as the English term “father” does--is not an emic universal.

Many universals subdivide into yet others. Thus tools are a universal but so too are some general kinds of tools (pounders, cutters, containers, etc.). The facial expression of emotion is a universal, but so too are smiles, frowns, and other particular expressions.

While some universals are or seem to be relatively simple, others are complexes or syndromes (no implication of illness intended). Ethnocentrism and romantic love are examples: both are best understood as complexes or syndromes rather than simple traits or behaviors.

Many universals have a collective rather than individual referent. Thus music and dance are found in all societies, but not all individuals dance or make music. Child-rearing occurs in all societies, but not all persons rear children.

Yet other universals are found in all (normal) individuals, although sometimes only in one sex or the other or in particular age ranges. Thus women everywhere predominate in child care and on average are younger than their mates. Children everywhere acquire language with prodigious skill, but adults do not. On the other hand, above the age of infancy everyone employs gestures and such elementary logical concepts as not, and, or, kind of, greater/lesser, part/whole, etc.; everyone classifies; everyone has likes and dislikes.

Universals at the level of the individual are particularly likely to be close to human nature or to be actual elements of human nature--at the core of which are the evolved problem-solving mechanisms that constitute the human mind. Universals of this kind--innate universals--raise some important methodological and disciplinary issues that will be addressed below. But let me first present what may be called the different formal distinctions among universals. These formally distinct kinds include absolute universals, near universals, conditional universals, statistical universals, and universal pools.

The definition I gave at the outset refers to absolute universals. A near universal is one for which there are some few known exceptions or for which there is reason to think that there might be some exceptions. Fire making and keeping domestic dogs are two near universals, as there were good reports of a very few peoples who used fire but did not know how to make it, or

who did not possess the dog. Many traits are described as “universal or nearly universal” to express a note of caution (given the sampling problems to be described below). Thus the emphasis in rituals around the world of percussion or deep-noted instruments and of the colors red, white, and black should probably be described as universal or nearly universal. The causes of near- and absolute universals may be quite similar.

A conditional universal (also called an implicational universal) is an “if-then” universal: if a particular condition is met, then the trait in question always accompanies it. Such universals are analogous to the facultative adaptations of evolutionary biology, of which callusing is an example. Not all individuals have calluses, but if there is sustained friction on particular locations of the hand, say, then calluses develop. Conditional universals are particularly well documented in linguistics. An example from culture is that if there is a cultural preference for one hand over the other then it will be the right hand that is preferred (as is the case in western culture, where the right hand is used in greetings and taking oaths). It is the rule or underlying causal mechanism that is the real universal in such cases.

A statistical universal is one that may be far from absolutely universal but that occurs in unrelated societies at a rate that seems well above chance. An example is the words used for the pupil of the eye. In a surprisingly large number of unrelated languages it is a term that refers to a little person. The apparent explanation for this is that everywhere people looking closely at other peoples’ eyes see a small reflection of themselves, so that in one society after another this common experience has somehow influenced the naming of the pupil. Although it is something of a stretch to think of these kinds of phenomena as universals, the explanation for them is not culturally particular but, rather, is in terms of a universal experience. Of course statistical- and conditional universals may combine (a great many anthropological generalizations are of this form).

A universal pool refers to those situations in which a limited set of options exhaust the possible variations from one society to another. The international phonetic alphabet, which does not really cover all the possibilities, nonetheless serves to express the idea: it consists of a finite possible set of speech sounds or sound contrasts, a selection from which is found in each actual language. Early in the past century an analysis of kinship terminologies showed that a quite small set of semantic contrasts accounted for the differences in kin terms in all or nearly all societies (a few further contrasts have been added since). Examples of the semantic contrasts are sex, which distinguishes "brother" from "sister," "father" from "mother," etc. and generation, which distinguishes "son" from "father," "father" from "grandfather," etc.

METHODOLOGICAL AND DISCIPLINARY ISSUES

There are severe methodological limitations on what can be known about universals in general. No one can really know the conditions in all societies, so that any statement about universality is based on some sort of sampling. In most cases this sampling has not been rigorous. Furthermore, the precision with which a real or alleged universal has been described often leaves much to be desired, in part because the original reports or descriptions were provided by different observers and sometimes at widely spaced intervals in time. Thus the confidence one can have in particular claims of universality is quite variable. Given the costs involved in studying even a single society, this range of problems will persist.

However, it should be noted that a sample as small as two societies--so long as they are very different--can be highly suggestive. Thus one can view the documentary film entitled "First Contact" and make one's own observations about what is common to two highly diverse societies: one's own modern society and a previously uncontacted highland New Guinean society. The film footage for this documentary was taken by Australian prospectors in the 1930s, when they were the first outsiders to enter a high and isolated valley.¹ The differences between the Australians and the New Guineans are striking, and yet the two also showed much in common, much of which would be difficult to trace to cultural borrowing.

In spite of its professional charge to study all cultures, which uniquely qualifies anthropology to both identify and verify universals, some anthropological conceptions and practices have not been congenial to the study of universals. Notably, anthropological attention has been riveted more surely by differences between societies than by their commonalities. Moreover, such attention as anthropologists have given to universals has tended to be limited to surface or manifest universals, those readily available to observation or readily expressed by their informants. Innate universals tended to be neglected (in extreme cases their existence was denied). This neglect was to a large extent overt and principled, seeming to follow logically from the view of culture that anthropologists held throughout much of the twentieth century, a view that seemed to be supported by exaggerated (and in some cases false) reports of the extraordinary extent to which cultures differ and shape human behavior, a view that was construed to indicate that there must be few if any universal features of the human mind.

As a result, the anthropological study of universals has been spotty at best, unified neither by theory nor by sustained attention. There is, thus, ample reason to suspect that a great many more universals have yet to be identified.

In contrast to anthropologists, psychologists have been much more open to the discovery

¹ The making of this documentary is described in Bob Connolly and Robin Anderson, First Contact: New Guinea Highlanders Encounter the Outside World (New York: Penguin, 1987).

of presumably universal features of the human mind. But only rarely have psychologists conducted their research outside the modernized and mostly western world, so that the cross-cultural validity of the numerous mental processes and traits that they have identified is often in doubt. And some cross-cultural research has indeed shown that psychological phenomena that one might think are unaffected by cultural differences--the perception of certain optical illusions, for example--are in fact not universal (many other examples could be given). More will be said about conceptions of culture, and the possibility of theoretically guiding the study of innate universals, in a later section.

CAUSES

A relatively small number of causal processes or conditions appear to account for most if not all universals. These processes or conditions are 1) the diffusion of ancient (and generally very useful) cultural traits, 2) cultural reflection of physical fact, 3) the operation and structure of the human mind, and (behind the latter) 4) the evolution of the human mind.

Some universals--the well-authenticated examples are tool making, the use of fire, and cooking food--can be traced to such a great antiquity that it is sometimes proposed that they existed in the very earliest human populations and spread with humans to all their subsequent habitats. At any rate, some universals are very ancient and they are very useful, leaving it understandable that they might readily have spread as cultural traditions to all human societies.²

As for cultural reflection, I have already mentioned the case of terms for the pupil of the eye, which is based on a literal reflection. I have also mentioned kin terms, which everywhere reflect the relationships entailed by the bare facts of sexual reproduction (which, for example, everywhere generate parent-child relationships, sibling relationships, marital/mate relationships, and the various compounds of these relationships). Kin terms often include more than what is entailed by reproduction and sometimes omit some of the entailments, but in every language there is a substantial mapping of the locally named (emic) relationships onto actual (etic) kin relationships. Similarly the naming or classification of plants and animals shows substantial mapping onto (scientific) zoological and botanical classification. The near universal preference for the right hand that was mentioned earlier is probably a cultural reflection of the fact that in all

² It is sometimes suggested that there are some beliefs that have been with humans from the earliest times, and were transmitted to all subsequent human societies, not because they were obviously useful but because there was little or nothing to expose their falsity and thus to hinder their spread.

societies most people by far are right handed and the right hand seems so much “better.” In all these cases the “world out there,” so to say, is reflected in the cultural conceptions of each people--even though the reflections are not one-to-one and thus do vary in many ways from one society to another.

Finally, there are those universals whose causes lie more or less directly in the nature of the human mind, or that are features of the human mind. The latter in turn trace causally to the evolutionary past of humanity as a species. These universals of mind require a more extended discussion.

Recalling what was said earlier about disciplinary differences, it should be noted that the socio-cultural anthropologists who, due to their comparative studies of all human societies are most qualified to document universals, are not as a rule well qualified to explain them. By training, most socio-cultural anthropologists are neither psychologists nor biologists. But psychobiology and evolutionary psychology surely are crucial in explaining many innate universals (and in providing guidance in the search for further such universals). The reasoning is simple: whatever is constant through the many environments in which humans live must be due to something that goes with them wherever they go; that would certainly include human nature. Psychobiology and evolutionary psychology are the tools for understanding human nature.

Although much of the entire body of findings on the mind, as determined by psychology, is potentially universal, it would be a massive undertaking to assess their validity cross-culturally. This task can be meaningfully reduced, however, by limiting it not to all that the mind can and does do, but to determining those features of mind placed there by natural selection; that is, by focusing on those mechanisms that are natural units of mind--the problem-solving adaptations that make it up--rather than pursuing an indiscriminate study of any or all the effects that the mind can produce. This is the more focused--and more theoretically informed--task of evolutionary psychology as opposed to psychology in general.

Examples of universals of psyche or mind that were determined by cross-cultural study but without evolutionary theorizing are dichotomization or binary discriminations, the language acquisition device (as described by the linguist Noam Chomsky), emotions, classification, elementary logical concepts, psychological defense mechanisms, ethnocentrism or in-group bias, and reciprocity as a mechanism for bonding individuals to one another.

Among the universals identified more recently through testing evolutionary propositions are a facial-template-constructing mechanism that generates a preference for faces that are near the population mean, a social-cheater-detecting mechanism, a mental mechanism for thinking about “human kinds,” and a preference in males for skin colors in females that are lighter than the mean (because in the past it correlated with fecundity). Incest avoidance--a phenomenon found in many animal species as well as humans--straddles the boundary, as it is an evolution-

mindful re-thinking of what for long was one of the most frequently discussed and prototypically cultural human universals: the incest taboo. Similarly, the sentiments generated by kinship and reciprocity were long recognized by some anthropologists as universal but only received a sound theoretical understanding when evolutionary biologists illuminated their crucial role in providing solutions to the Darwinian puzzle of how altruism could evolve.

The determination and causal explanation of innate universals, predicted or illuminated by evolutionary theory, is probably the most active area in the study of universals at present. But a pursuit of causation in the other direction is vigorously underway too: since it follows that features of human nature must provide a continuous and pervasive structuring of human thought and activity--and hence of society, culture, and history, however much variation they exhibit--the findings of psychobiology and evolutionary psychology have clear implications for socio-cultural particulars too. Research or analysis that involves partitioning or breaking down socio-cultural particulars into the universal elements of which they are compounds will be discussed in the next section.

INNATE UNIVERSALS AND CULTURE

In turning now to culture in relation to universals, I will ignore those universals that presumably are cultural--such as the ancient and useful inventions and the cultural reflections--and will focus instead on those that are or may be innate universals. Hereafter, "universals" refers to those only.

Culture is usually defined by anthropologists in terms that distinguish it from nature, often as a radical contrast: culture versus nature. Definitions of culture generally stress patterns of behavior, thought, feelings, and artifact that are passed on from individual to individual, group to group, generation to generation extrasomatically--meaning patterns that are not in our genes, patterns that must be learned. Another important part of the culture concept is the observation that, overwhelmingly, any particular individual receives culture. What the individual can add to it or change is miniscule.

Although not a part of its definition, an important association with culture has been variability, indeterminacy, arbitrariness. The various peoples of the world do have substantial cultural differences, and some differences seem to have no rhyme or reason. This tendency to variability and indeterminacy is often contrasted with the fixity of nature, as in the fixity of animal instincts.

At their extreme, these conceptions of culture led to the view that the mind is fundamentally a "blank slate" and that the study of culture can be conducted with little or no attention to the human mind (or to the individual).

These aspects of anthropological thought were not congenial to the study of universals, and have posed two particular problems. One concerns the boundary between nature and nurture. The other is the matter of how the constants of human nature--whatever they might be--could produce or participate in the obvious variability of culture. Let me treat the former first.

Whatever contrast there may be between culture and nature, cultural patterns must initially be created by humans. Furthermore, cultural patterns must not only be created by humans, they must subsequently be conveyed, received, and given expression in processes constrained and shaped by the mental and physical traits that make up the human organism. In other words, human nature is essential to human culture--in origin and as an ongoing process. Perhaps no one denies this, but there has been great disagreement concerning how, when, to what extent, and in what ways human nature manifests itself in cultural matters.

Let me use an analogy to suggest how culture and nature run together. As I sat in my office composing these sentences, employing and surrounded by artifacts that did not exist during the period in which humans evolved, much of what was around me and much of what I was doing would well fit the description of culture. The very desk in front of me was built by humans according to a pattern devised by humans. But the grain in the desk's wood always runs in whichever is the long dimension of each piece. The wood itself was once a natural object, and still retains some of its natural features. So the principal ingredients of the desk are natural and the nature of those ingredients figures into how the pieces are assembled and employed. Thus nature and culture combine in the desk. Similarly, as I put together my thoughts in language, planning to communicate with other humans by means of a paper that is clearly a cultural artifact, trying to make myself comfortable at the same time, I was also doing many natural things. As I articulated my thoughts and words, an enormous amount of mental and physical activity went on silently inside me almost entirely beyond the range of consciousness. That is nature, human nature.

Some definitions of culture do acknowledge this continuous intermixing with nature. The philosopher-anthropologist David Bidney, for example, argued that culture should, at least in part, be understood "as the dynamic process and product of the self-cultivation of human nature."³ Others speak of culture within nature instead of culture versus nature--that is, culture is a product of human nature. Some have equated culture with "life way," a term that makes no reference to it being extrasomatic and that is therefore apt for combining nature and culture. Others have seen culture as a control or correction of certain features of human nature. Yet others see culture as an extension of the human mind and body. One can think of culture as a

³ David Bidney, "Human Nature and the Cultural Process," *American Anthropologist* 49 (1947):375-99. P. 387.[]

kind of judo, in which the features of the mind and body are channeled and amplified into particularly efficient uses.

As a result of this intermingling of nature and culture, anthropologists (and others) are led to continuous uncertainty or disputation about which is which or where one leaves off and the other begins. These disputes can be scientifically beneficial, so long as there is no insistence on behaviors being radically separated, either-or culture or nature.

In sum, there may be good reason to distinguish the cultural in human affairs, but in almost everything that humans do and make it is as useful to insist on it being either culture or nature as it would be to insist that water is either hydrogen or oxygen.

But how can the constants of human nature be reconciled with the manifest variability of cultures or, for that matter, with the manifest variability of human behavior? Let me give five answers.

1) In any discussion of human nature a particularly crucial distinction must be made between "functions" and "effects." The set of mental mechanisms that comprise the human mind, and thus are fundamental to human nature, were designed by natural selection to solve particular problems that were recurrent in our evolutionary past and that are presumably finite in number. Solving these problems are the respective functions of those mechanisms. However, a mechanism designed to discharge a particular function may have side effects or byproducts. Thus, the shape of the outer ear was designed by natural selection to gather sound waves but may also be used to support glasses or pencils. Similarly, our fingers were not designed to type, but can do it. The anthropologist Lawrence Hirschfeld has proposed, on the basis of experimental evidence, that there is a mechanism in the human mind dedicated to processing information on human types, such as kin types, the sexes, and occupational types.⁴ While this mechanism must have evolved in conditions in which racial differentiation was rarely if ever perceived (due to the short distances our Stone Age ancestors could have traveled), it has left the human mind effectively "prepared" to think about races in particular ways. Thus racial thinking has flourished in recent times because it "parasitizes" a mechanism that was designed for other purposes.

In the case of humans, mental mechanisms are numerous and their effects--which presumably include a great many emergent properties stemming from the interaction of the various individual mechanisms--are either potentially infinite or at any rate infinitely divisible. In spite of the infinity of possible behavioral effects, the mechanisms do leave traces of their

⁴ Lawrence A. Hirschfeld, *Race in the Making: Cognition, Culture, and the Child's Construction of Human Kinds* (Cambridge: The MIT Press, 1996).

existence: some are relatively obvious (as in the uniformity of smiles and frowns), some possess enough observable irregularity to fuel the nature-nurture debates (as with many sex differences), and some reveal themselves only through unusual observational situations, as in extensive cross-cultural observation or psychological experimentation. At any rate, the range of effects that may become culturally patterned is thus large.

2) Many mental mechanisms motivate us toward goals (mating, ingesting food, etc.) without specifying the means. We may meet these goals through a potentially infinite variety of means. While the many means are observable, the few goals must be inferred. The range of means that may become culturally patterned is again large.

3) Some mental mechanisms involve calibration to environing conditions. The resulting behaviors are variable by design, though the underlying mechanism is unitary. The variable responses may well appear to be cultural. For example, as mentioned earlier there is evidence to suggest that humans have an evolved mechanism for detecting and preferring faces that, for many of their features, are near the mean (or average) of what one sees. Since the mean may vary from one population to another, the resulting standards of beauty would vary too, and this could easily be interpreted as a cultural difference.

4) Many adaptations may in some circumstances conflict with each other, so that the resulting behaviors are compromises. Purely local conditions may favor compromises in one direction rather than another. Various peoples thus ignore the pangs of hunger and thirst for a time to maintain the approval of their fasting fellows.

5) As wondrously precise as genetic replication is, the genes that program the structure and operation of our minds (and bodies) do so in interaction with the genes' environments, which can and do vary. This, in turn, results in structures and operations that differ in varying degrees from one individual to another and from one population to another. In this context it is important to note that recent human environments, in almost all parts of the world, present many conditions that are quite unlike those that prevailed over the long period in which human nature evolved. Many modern behaviors--epidemic obesity in environments rich in processed foods comes to mind as an example--may have their analogues more in the bizarre behaviors of animals in zoos than in what the same kinds of animals do in their natural habitats. Clearly, local environments account for many of what are seen as cultural distinctions between one society and another.

In sum, observable variation in behavior or culture is entirely compatible with a panhuman design of the mind (barring sex and age differences that are equally likely to reflect evolutionary design).

Finally, let us return to the notion that innate human universals continuously and pervasively structure human culture (and society and history). To the extent that this is so, we should be able to do a sort of back engineering on features of society or culture that allows us to

break them down into their component elements or trace their roots back to the features of human nature that gave rise to them. This is not a new idea, in part because in some cases the task seems easy. What is the alternative, for example, to concluding that writing, the printing press, the telegraph, the telephone, the word processor, and more are extensions or augmentations of speech?

Around the beginning of the 20th century, similar thinking--about what were then called "elementary ideas"--led to the conclusion that the spear is an augmentation of the arm. What would be the alternative explanation for literally millions of songs, poems, stories, and works of art, from many parts of the earth and over long periods of time, that celebrate the attractions between men and women--except the mind's preoccupation with the topic? Perhaps the entire cosmetics industry flows from the same cause. Ronald Hyam, a historian of colonialism, has even argued that the sexual drive was as potent a motivator of colonialism as was economics.⁵ The virulent nationalisms and racisms of modern times may well be "hypertrophies" of an ethnocentrism that for many millenia played itself out on a much smaller scale.

Near the middle of the past century what I believe was one of anthropology's great achievements appeared in Ralph Linton's book on culture history entitled The Tree of Culture.⁶ It assembled information about where and when cultural inventions arose around the world. But what was omitted were the roots of that tree in human nature. The task of tracing those roots--in literature, the arts, history, and human affairs in general--is now well begun. We can look forward to the time when a great many cultural features are traced beyond the time and place of their invention to the specific features of human nature that gave rise to them, or for which they are augmentations. In order to do this we need not only a close examination of culture but an expanding knowledge of what the full complement of features of human nature might be. The study of human universals is an important component of that task.

SUMMARY

This paper has attempted to present some of the principal issues in the study of those traits that are common to all human cultures, societies, and languages, and to the minds and behavior of humans everywhere. Hundreds of such traits are known, and all or most can be

⁵ Ronald Hyam, Britain's Imperial Century 1815-1914: A Study of Empire and Expansion. (London: B. T. Batsford, 1976). See also Hyam's Empire and Sexuality: The British Experience (Manchester: University of Manchester Press, 1990).

⁶ Ralph Linton, The Tree of Culture (New York: Alfred A. Knopf, 1955).

traced to a very few causal processes, notably including the evolved nature of the human mind. There is reason to suspect that the number of universals should be much higher, because their discovery and verification has hitherto suffered a sort of two-way bind. On the one hand, anthropologists have shown more interest in differences than commonalities, and have not been well prepared to study the major class of universals that comprise the human mind. On the other hand, psychologists, while focused on the human mind, have too rarely sought cross-cultural validity for their findings. While it is not feasible to test all psychological findings in cross-cultural settings, this paper argued that research focused on those features of mind that were placed there by natural selection is feasible. Evolutionary psychology is the framework in which this research may be, and is being, conducted. The insights into human nature that result from this research are in turn providing insight into the motivation, origin, or character of a wide variety of human activities--and into the particulars as well as the universals of human culture.

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