Universals of Human Nature

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Receiving an honorary degree from the oldest and one of the most prestigious universities in Europe is the kind of occasion that naturally leads one to think back over the guiding issues and concerns of earlier years – in my case, 50 years of university teaching and research, alongside of other intense commitments, in both cases stretching back to earlier years. They have been two almost parallel paths: almost parallel because they do meet short of infinity, though exactly how they converge is far from clear. One path seeks to understand more about language and mind. The other is guided by concerns for freedom and justice – and, regrettably, human survival, not an idle concern in our era. There should be some shared elements: in particular, what the co-founder of modern evolutionary theory, Alfred Russel Wallace, called ‘man’s intellectual and moral nature’: the human capacities for creative imagination, language and symbolism generally, interpretation and recording of natural phenomena, intricate social practices and the like. In short, a complex of capacities that seem to have crystallized fairly recently among a small group in East Africa of which we are all descendants. The archaeological record suggests that the crystallization was so sudden in evolutionary time that some eminent scientists call the events ‘the great leap forward,’ which distinguished contemporary humans sharply from other animals, including other hominids. The

principles of our intellectual and moral nature remain a considerable mystery, but we can hardly doubt their existence, or their central role in our intellectual and moral lives. I am aware that this is conventionally denied, but not credibly, in my opinion.

The topics are far too broad to address within the confines of this paper, so I would like to keep to two core aspects: human language, which is regarded by many paleo-anthropologists as the factor that stimulated ‘the great leap forward’; and our conception of fundamental human rights. In both domains we should, I think, be seeking universals, that is, elements of our common human endowment that provide humans with specific cognitive capacities and with the foundations for moral judgment.

There is a long and interesting history of thought about possible links between these domains, but they remain speculative and poorly understood. The only way to proceed, as far as I can see, is to say a few words about universality in language and in human rights, with barely a hint about the possible connections, a problem still very much on the horizon of inquiry.

Universality in Language

To begin with, what about universality in language? The most productive way to approach the problem, I think, is within the framework of what has been called ‘the biolinguistic perspective,’ an approach to language that began to take shape in the early 1950s, much influenced by recent developments in mathematics and biol-

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ogy. The approach interacted productively with a more general shift of perspective in the study of mental faculties, commonly called 'the cognitive revolution.' It would be more accurate, I think, to describe it as a second cognitive revolution, reviving and extending important insights and contributions of the cognitive revolution of the 17th and 18th century, which had regrettably been forgotten and are still little known.

In the 1950s, the study of language and mind was commonly considered part of the behavioral sciences. As the term indicates, the object of inquiry was taken to be behavior, and for linguistics, also its products: texts, perhaps a corpus elicited from native informants. Linguistic theory consisted of procedures of analysis, primarily segmentation and classification. Some of the most influential were those of Nicolai Troubetzkoy and Zellig Harris. The procedures developed were guided by limited assumptions about structural properties and their arrangement. The prominent American theoretician Martin Joos hardly exaggerated in a 1955 exposition when he identified the 'decisive direction' as the decision that language can be 'described without any preexistent scheme of what a language must be.' Prevailing approaches in the behavioral sciences generally were similar. No one, of course, literally believed in the incoherent notion of a 'blank slate.' But it was common to suppose that apart from some initial delimitation of properties detected in the environment (a 'quality space,' in W.V. Quine's highly influential framework), undifferentiated learning mechanisms of some kind account for what organisms know and do, humans included.

The biolinguistic approach, along with related areas of the cognitive sciences, adopted a different stance. They took the object of inquiry to be, not behavior and its products, but rather the internal systems that enter into action and interpretation; and at a deeper level, the basis in our biological nature for the growth and development of these internal systems. The goal was to discover what Juan Huarte in the 16th century described as the essential property of human intelligence: the capacity of the human mind to 'engender within itself, by its own power, the principles on which knowledge rests' – ideas that were developed in important ways in the years that followed.

For language, 'the principles on which knowledge rests' are those of the internalized language, a certain cognitive state. The knowledge that rests on these principles covers a wide range, from sound to structure to meaning. In even the most elementary cases, what is known is quite intricate. To take a word that interested British empiricists,

consider the notion *river*, regarded as a 'common notion,' part of our innate knowledge. Thomas Hobbes suggested that rivers are mentally individuated by origin. But while there is some truth to the observation, it is not really accurate, and it only scratches the surface of our intuitive understanding of the concept. Thus the river Po would remain the very same river under quite extreme changes – among many others, reversing its course, dividing it into separate streams that converge in some new place, replacing any H₂O that happens to be in it with chemicals from an upstream manufacturing plant. On the other hand, under some trivial changes it would no longer be a river at all: for example, directing it between fixed boundaries and using it for shipping freight (in which case it is a canal, not a river), or hardening the surface to the glassy state by some near-undetectable physical change, painting a line down the middle, and using it to drive to Venice (in which case it is a highway).

As we proceed, we find much more intricate properties, no matter how simple the words we investigate. Such commonplace facts undermine an approach to reference based on some mystical word-object relation. Insights about these matters were developed from Aristotle through to the 17th and 18th century, but have been mostly lost today. Even the simplest human concepts appear to be entirely different from anything found in animal symbolic or communicative behavior, a significant problem for evolutionary theory, one of several. And the problems mount very rapidly when we move from words to expressions formed from them.

One essential task of inquiry is to determine the principles on which such knowledge rests for the widest variety of possible human languages. A deeper problem is to discover what Huarte called 'the power to engender' these principles of internal language: in current terms, the virtually uniform biological endowment that constitutes the human language faculty. The power to engender an internal language is the topic of 'universal grammar,' adapting a traditional term to a new context. The universal properties of language constitute, in effect, the genetic component of the language faculty.

From this point of view, languages and other cognitive systems are taken to be, in effect, organs of the body, primarily the brain, to be investigated in much the manner of other subcomponents that interact in the life of the organism: vision, motor planning, circulation of the blood, and others. Along with their role in behavior, the 'cognitive organs' enter into activities traditionally regarded as mental: thought, planning, interpretation, evaluation, moral judgment, and so on. Behavior and its products –

such as texts – provide data that may be useful as evidence to determine the nature and origins of cognitive systems, but have no privileged status for such inquiries.

One significant insight of the first cognitive revolution is that there is no coherent mind-body problem. That is an immediate consequence of Newton's demolition of the 'mechanical philosophy,' based on the intuitive concept of a material world. Newton himself regarded his conclusions as an 'absurdity' and sought for the rest of his life to evade them, as did many eminent scientists in later years. But it was finally recognized that they must be accepted, no matter how absurd they are from the perspective of common sense. The mind-body problem is therefore unformulable. We can only regard aspects of the world 'termed mental' as the result of 'such an organical structure as that of the brain,' as the chemist-philosopher Joseph Priestley observed in the late 18th century. Thought is a 'little agitation of the brain,' David Hume had remarked. And as Darwin later added, there is no reason why 'thought, being a secretion of the brain,' should be considered 'more wonderful than gravity, a property of matter.'

In his classic 19th century history of materialism, Friedrich Lange pointed out that Newton effectively destroyed materialist doctrines as well as the standards of intelligibility associated with them, a 'turning-point' in the history of materialism that removes the surviving remnants of the doctrine far from those of the 'genuine Materialists' of the 17th century, and deprives them of much significance. By then, a more modest conception of the goals of science had become scientific common sense: Newton's reluctant conclusion that we must be satisfied with the fact that universal gravity exists, even if we cannot explain it in terms of the self-evident 'mechanical philosophy.' As historians of science have observed, this intellectual move 'set forth a new view of science' in which the goal is 'not to seek ultimate explanations' but to find the best theoretical account we can of the phenomena of experience and experiment (I. Bernard Cohen).

It is a curiosity of intellectual history that the 18th century truism is now commonly put forth as an 'astonishing hypothesis,' 'the bold assertion that mental phenomena are entirely natural and caused by the neurophysiological activities of the brain,' the thesis that 'things mental, indeed minds, are emergent properties of brains' – just to quote a few recent examples from highly regarded scientists and philosophers. The wording is almost identical to the recognition two centuries ago that there is no alternative, once Newton had shown that nothing is a machine – or physical, or material, in the only coherent sense of those terms, then or since.

Another significant insight of the first cognitive revolution was that properties of the world termed mental may involve unbounded capacities of a finite organ, the 'infinite use of finite means,' in Wilhelm von Humboldt's phrase. In a rather similar vein, Hume had recognized that our moral judgments are unbounded in scope, and must be founded on general principles that are part of our nature though they are beyond our 'original instincts.' That observation poses Huarte's problem in a different domain, where we might find part of the thin thread that links the search for cognitive and moral universals.

By the mid-20th century, it had become possible to face such problems in more substantive ways than before. By then, there was a clear understanding of finite generative systems with unbounded scope, which could be readily adapted to the reframing and investigation of some of the traditional questions that had necessarily been left obscure – though only some, it is important to stress. Humboldt referred to the infinite *use* of language, quite a different matter from unbounded *scope* of the finite means. Another influential factor in the renewal of the cognitive revolution was the work of ethologists, then just coming to be more widely known, with its concern for 'the innate working hypotheses present in subhuman organisms' and the 'human a priori,' which should have much the same character. That framework too could be adapted to the study of human cognitive organs and their genetically determined nature, which constructs experience and guides the general path of development, as in other aspects of growth of organisms.

Meanwhile, efforts to sharpen and refine the procedural approaches of structural linguistics ran into serious difficulties, revealing what appear to be intrinsic inadequacies. It became increasingly clear that even the simplest elements do not have the 'beads-on-a-string' property that is required for procedural approaches. Rather, they relate much more indirectly to phonetic form. Their nature and properties are fixed within the internal computational system that determines the unbounded range of expressions. These expressions, in turn, can be regarded as 'instructions' to other systems that are used for mental operations, as well as for production and interpretation of external signals. In the behavioral sciences more generally, closer study of the postulated mechanisms of learning also revealed fundamental inadequacies, and soon questions were arising within the disciplines as to whether even their core concepts could be sustained.

For language, the natural conclusion seemed to be that the internal language attained has roughly the character of a scientific theory: an integrated system of rules and

principles from which the expressions of the language can be derived. The child must somehow select the internal language from the flux of experience. The problem is similar to what the philosopher Charles Sanders Peirce, one of the founders of modern pragmatism, had called *abduction* in his inquiries into the nature of scientific discovery. And as in the case of the sciences, the task is impossible without what Peirce called a 'limit on admissible hypotheses' that permits only certain theories to be entertained, but not infinitely many others compatible with relevant data. In the language case, it appeared that universal grammar must impose a format for rule systems that is sufficiently restrictive so that candidate languages are 'scattered,' and only a small number can even be considered in the course of language acquisition. It follows that the format must be highly articulated, and specific to language. 'The most challenging theoretical problem in linguistics' was taken to be 'that of discovering the principles of universal grammar,' which 'determine the choice of hypotheses,' the accessible internal languages.

It was also recognized that for language, as for other biological organisms, a still more challenging problem lies on the horizon: to discover 'the laws that determine possible successful mutation and the nature of complex organisms'. Investigation of such factors seemed too remote to merit much attention, though even some of the earliest work – for example, on elimination of redundancy in rule systems – was implicitly guided by such concerns, which bear quite directly on universality in language: insofar as these factors enter into growth and development, less need be attributed to universal grammar as a language-specific property.

In the years that followed, much more was learned about the principles of particular languages and the general principles that engendered them. By the early 1980s, a substantial shift of perspective within linguistics re-framed the basic questions considerably, abandoning entirely the format conception of linguistic theory in favor of an approach that sought to limit attainable internal languages to a finite set, aside from lexical choices. As a research program, this shift has been highly successful, yielding an explosion of empirical inquiry into a wide range of typologically varied languages, posing new theoretical questions that could scarcely have been formulated before, often providing at least partial answers as well, while also revitalizing related areas of language acquisition and processing. Another consequence was that the shift of perspective removed some basic conceptual barriers to the serious inquiry into deeper principles in growth and development of language. In this conception,

acquisition is dissociated from the fixed principles of universal grammar, and does not compel the conclusion that the format provided by the innate language faculty must be highly articulated and specific to it, so as to restrict the space of admissible hypotheses. That opens new paths to studying universality in language.

It had been recognized from the origins of modern biology that general structural and developmental constraints enter into the growth of organisms and their evolution. By now such considerations have been adduced for a wide range of problems of development and evolution, from cell division to optimization of structure and function of cortical networks, and very recently, the discovery of a kind of 'scaffolding' that arises spontaneously in cortical circuits, with clustering of connections that might turn out to be of some significance in cortical development.

Assuming that language has general properties of other biological systems, we should, therefore, be seeking three factors that enter into the growth of language in the individual: (1) Genetic factors, the topic of universal grammar. These interpret part of the environment as linguistic experience, and determine the general course of development to the languages attained. (2) Experience, which permits variation within a fairly narrow range. (3) Principles not specific to the faculty of language.

The third factor includes principles of efficient computation, which would be expected to be of particular significance for systems such as language, determining the general character of attainable languages.

At this point we would have to move on to more technical discussion than is possible here, but I think it is fair to say that there has been considerable progress in moving towards principled explanation in terms of third factor considerations. This has considerably sharpened the question of the specific properties that determine the nature of language – in one form or another, the core problem of the study of language since its origins millennia ago, and now taking quite new forms.

The quest for principled explanation faces daunting tasks. We can formulate the goals with reasonable clarity. With each step towards the goal we gain a clearer grasp of the universals of language. It should be kept in mind, however, that any such progress still leaves unresolved problems that have been raised for hundreds of years. Among these are the question how properties 'termed mental' relate to 'the organical structure of the brain,' and the mysterious problems of the creative and coherent ordinary use of language, a core problem of Cartesian science.

Universal Human Rights

We are now moving to domains of will and choice and judgment, and the thin strands that may connect what seems within the range of scientific inquiry to essential problems of human life, in particular the vexed questions about universal human rights. One possible way to draw connections is by proceeding along the lines of Hume's remarks, which I mentioned earlier: his observation that the unbounded range of moral judgments must be founded on general principles that are part of our nature though they lie beyond our 'original instincts,' which elsewhere he took to include the 'species of natural instincts' on which knowledge and belief are grounded.

In recent years, there has been intriguing work in moral philosophy and experimental cognitive science that carries these ideas forward, investigating what seem to be deep-seated moral intuitions that often have a very surprising character, in invented cases. To illustrate, I will instead take a real example that leads directly to the issue of the universality of human rights.

In 1991, the chief economist of the World Bank wrote an internal memo on pollution, in which he demonstrated that the Bank should be encouraging migration of polluting industries to the poorest countries. The reason is that 'measurement of the costs of health-impairing pollution depends on the foregone earnings from increased morbidity and mortality,' so it is rational for 'health-impairing pollution' to be sent to the poorest countries, where mortality is higher and wages are lowest. Other factors lead to the same conclusion, for example, the fact that 'aesthetic pollution concerns' are more 'welfare enhancing' among the rich. He pointed out, accurately, that the logic of his memo is 'impeccable,' and any 'moral reasons' or 'social concerns' that might be adduced 'could be turned around and used more or less effectively against every Bank proposal for liberalization,' so they cannot be relevant.

The memo was leaked, and led to a furious reaction, typified by Brazil's Secretary of the Environment, who wrote him a letter saying that his 'reasoning is perfectly logical but totally insane.' He was fired, while the author of the memo became Treasury Secretary under Clinton and is now the president of Harvard University.

The reaction was indeed furious, leading to evasions and denials that can be ignored here. What is relevant is the virtual unanimity of the moral judgment that the reasoning is logical but insane. That merits a closer look, now turning to the modern history of human rights doctrines.

The standard codification of human rights in the modern period is the Universal Declaration of Human Rights (UD), adopted in December 1948 by almost all nations, at least in principle. The UD reflected a very broad cross-cultural consensus. All of its components were taken to have equal status, from anti-torture to socioeconomic rights, such as those enumerated in Article 25: 'Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.' These provisions have been reaffirmed in enabling conventions of the General Assembly and international agreements on the right to development in almost the same words.

It seems reasonably clear that this formulation of universal human rights rejects the impeccable logic of the chief economist of the World Bank, if not as insane, at least as profoundly immoral – which was, in fact, the virtually universal judgment, at least of those willing to appear in public.

It is, however, important to stress the word 'virtually.' As is well known, Western culture condemns some nations as 'relativists,' who interpret the UD selectively, rejecting components that they do not like. There has been great indignation about the Asian relativists, or the unspeakable Communists, who descend to this degraded practice. Less noticed is that the leader of the relativist camp is also the leader of the self-designated 'enlightened states,' the world's most powerful state. We see examples almost daily, though 'see' is perhaps the wrong word, since we see them but do not notice them.

I will keep to the United States, but that is misleading. It may sometimes be a few steps ahead of the Western world in these respects, but there is in fact very little difference, apart from distribution of power.

In March 2005, the press featured lead stories about the release of the State Department's annual report on human rights around the world. The spokesperson at the news conference was Paula Dobriansky, Undersecretary of State for Global Affairs. She affirmed that 'Promoting human rights is not just an element of our foreign policy, it is the bedrock of our policy and our foremost concern.' There is, however, a bit more to the story. Dobriansky was Assistant Secretary of State for Human Rights and Human Affairs in the Reagan and Bush senior administrations, and in that capacity, she sought to dispel what she called 'myths' about human rights, the most sa-

lient being the myth that so-called “economic and social rights” constitute human rights’. She denounced the efforts to obfuscate human rights discourse by introducing these spurious rights – which are entrenched in the UD, which was formulated at US initiative, but which the US government explicitly rejects, and increasingly the entire West, within the framework of the neoliberal doctrines on which the chief economist of the World Bank was relying.

I should stress that it is the US government that rejects these provisions of the UD. The population strongly disagrees. One current illustration is the 2005 federal budget, along with a study of public reactions to it carried out by the world’s most prestigious institution for study of public opinion. The public calls for sharp cuts in military spending along with sharply increased social spending: education, medical research, job training, conservation and renewable energy, as well as increased spending for the UN and economic and humanitarian aid, and reversal of Bush’s tax cuts for the wealthy. Government policy is dramatically the opposite in every respect. Studies of public opinion, which regularly demonstrate this sharp divide, are rarely even reported, so the public is not only removed from the arena of policy formation but is also kept unaware of public opinion.

There is, rightly, much international concern about the consequences of the rapidly expanding twin deficits in the US, the trade and budget deficits. Closely related is a third deficit: the growing democratic deficit, not just in the US but in the West generally. It is not discussed because it is welcomed by wealth and power, which have every reason to want the public largely removed from policy choices and implementation, a matter that should be of considerable concern, quite apart from its relation to the universality of human rights. It is depressingly too easy to add many more examples, ranging across the full spectrum of rights affirmed in the UD. They teach us about two important topics: universal moral judgments, and the elite moral and intellectual culture in which we live, which dramatically and forcefully rejects them.

Conclusions

Finally, a few observations on the current scene. 2005 marks the 25th anniversary of the assassination of Archbishop Oscar Romero of El Salvador, a ‘voice for the voiceless,’ and the 15th anniversary of the murder of six leading Latin American intellectuals, Jesuit priests. The two events framed the hideous decade of the 1980s in

Central America. Archbishop Romero and the Jesuit intellectuals were murdered by security forces armed and trained by Washington – in fact, the present incumbents or their immediate mentors. The same is true of most of the hundreds of thousands of other victims. The Archbishop was assassinated while he was performing mass, shortly after he wrote to President Carter, pleading with him not to send aid to the brutal military junta in El Salvador, which will ‘sharpen the repression that has been unleashed against the people’s organizations fighting to defend their most fundamental human rights’. State terror escalated, always with US support and Western silence and complicity. If anything remotely similar had happened in Eastern Europe in those years, the events would be known, and the anniversaries commemorated – assuming, that is, that outrage had not led as far as nuclear war.

The differentiating principle is crystal clear, probably close to a historical universal. For the powerful, our own crimes do not exist. We must not remember the grim fate of those who were ‘fighting to defend their most fundamental human rights,’ and who bears the responsibility for these atrocities.

In societies that valued their freedom, it would be unnecessary to recount any of this, because it would be taught in the schools and well-known to everyone. And the same would be true of the continuing atrocities taking place right now by military forces armed and trained by Washington, with the support of its Western allies: for example, in Colombia, the leading human rights violator in the hemisphere, and for many years the leading recipient of US military aid and training. The State Department reports that last year Colombia retained its record of killing more labor activists than the rest of the world combined. In early 2005, the military broke into the first and most important of the towns that had declared itself a zone of peace, murdering one of its founders and others, including children aged 2 and 6.

Little is known about such matters, apart from the circles of people who are devoted to defending universal human rights.

These few examples are meant to remind ourselves that we are not merely engaged in seminars on abstract principles, or discussing remote cultures that we do not comprehend. We are speaking of ourselves, and the moral and intellectual values of the privileged elite communities in which we live. If we do not like what we see when we look into the mirror honestly, we have every opportunity to do something about it.