

Translatability, Intelligibility, Revisability

In many areas of current scientific investigation English now serves as a lingua franca across the world and over a certain range of problems in mathematical research the language used is that of universally recognised mathematical symbols. For a time in early modern Europe Latin served as the medium of scholarly exchange, just as Greek had done in the heyday of Hellenistic culture. In the Far East the written graphs of Chinese underpinned and still to some extent underpin much work in Japanese and Korean. Yet even when investigators agree at least on the natural language in which to convey their results, problems of mutual comprehension may certainly arise, which are likely to be compounded when we are dealing with several such languages. The question of mutual intelligibility was raised in an acute fashion by Kuhn's insistence on the incommensurability of competing scientific paradigms. Aristotle's understanding of force (*bia*) and weight (*baros*) presupposes a set of basic concepts that differ starkly from those of Galileo's dynamics, let alone of Newton's, and in the subsequent history of physics philosophers and scientists have radically transformed the understanding of space and time themselves. More generally still, the problems of translatability and of mutual intelligibility have more recently been high on the anthropologists' agenda, where I have myself broached some of the issues from the point of view of how we are to understand ancient societies.¹

It is as well to begin with a little elementary philosophy of language. As Grice (1968, cf. 1975, 1978), following Austin (1962), pointed out many years ago, we must bear in mind that what we mean by 'meaning' varies with context (cf. already Ogden and Richards 1923). First there is the meaning of a word as that would be given in a dictionary for the language in question, where we shall often find original or primary or 'literal' uses distinguished from those labelled derivative, 'tropical', 'figurative' or

¹ See especially Severi and Hanks 2015, Lloyd 2020a.

'metaphorical'. But word meaning differs from sentence meaning in that particular collocations will affect the sense we attach to the components of that collocation. We progress to a different level when we take into account utterer's meaning, for a single sentence may be used to make very different points: indeed sometimes the point may – ironically – be the very opposite of the one that the words would normally be thought to convey. At yet a further level the so-called perlocutionary force of a remark makes a difference, the effect that the assertion may have on those who hear it. In some cases the stating is the doing, as is the case with 'I do' in a marriage ceremony, or 'I name this ship the Queen Elizabeth' when one is launched.

But when two radically divergent cosmologies confront one another, the difficulties are of a different order of magnitude. As I have put the anthropological dilemma before, the problem is how statements or practices made within one such system can be understood by any observers who are not deeply imbued with that set of beliefs already, a point pressed from different perspectives by Strathern (1988, 2019), Viveiros de Castro (1998, 2014, 2015), Ingold (2000), Vilaça (2010), Descola (2013) and Candea (2019a, 2019b) especially. If those observers use their own conceptual schemata to gloss what is going on, is that not bound to have a distorting effect? But how can those observers fail to use their own basic concepts, since they are the only ones they have?

The first step to clarify that dilemma that I proposed is to insist that any particular set of concepts or categories, our own or anyone else's, should not be assumed to be set in stone, incapable of modification or revision. Quite to the contrary, they should always be treated as provisional and revisable. Indeed my claim is that one of the great advantages that accrues from the comparative history of science and philosophy is that it allows and encourages such scrutiny. It is true that in one tradition of the history of science the temptation simply to dismiss earlier views as worthless has been strong. What, the thought would be, can be learnt from investigating the fumbleings of past researchers other than lessons to do with the sources of human fallibility? Yet here the anthropological dimension of the problems may serve as an antidote. When our target is to examine other peoples' ways of being in the world, including their ideas about such key issues as the relations between humans and other animals, agency, causation, personhood, we may more readily come to see that our own starting assumptions are not fully adequate to the task. It is not just a question of correcting others' categories to bring them into line with our own (the programme associated with Davidson 1974, 2001) but also of reviewing ours in the light of theirs. However, that may be to jump ahead too fast, since it presupposes

that we can recognise that the ideas from which we hope to learn do indeed relate to those categories, and that in turn assumes a positive answer to the question we are investigating here, namely whether there is some possibility of cross-cultural comparison and translation.

It is helpful, to start with, to acknowledge that the degree of difficulty we encounter varies with context. As I have said before, it is usually not especially difficult for an ethnographer or an ancient historian to achieve competence in the use of a foreign vocabulary for mundane objects and transactions. We learn the native word for a species of animal (as in the Dorze case of the leopard that I cited before) easily enough. Probing what is believed about that creature (that it is a Christian animal, in the Dorze instance) is where the major problems generally begin. The anthropologist sees one of her hosts offer an object to another: but whether that is a 'gift', and what that would imply if that were the case, may be fraught with interpretative difficulties. Here is a good example that illustrates the serious inadequacy of what might be our own starting assumption, namely that a gift is a one-off transaction with no repercussions on the subsequent relationship between giver and receiver. On the contrary, gifts may be a way of imposing obligations on those who receive them. The literature on this, since Mauss's classic study (2016 [1925]), has been immense and immensely fruitful (e.g. Strathern 1988).

Similarly in an instance that I may take from ancient Greece. The term *philos* is regularly translated 'friend', that is a person for whom you feel affection. That indeed corresponds to many of its uses, and when the term is used in compounds, it becomes clear that it is not just humans who can be the object of such feelings. A *philosophos* is a person who loves *sophia*, wisdom. The range of terms constructed on such a model is almost limitless: in Plato we have *philekooi* and *philotheamones* for those who are 'lovers of sounds' and 'lovers of spectacles', where those who fall into those categories are contrasted with the true lovers of wisdom. But the humans whom you count as your *philo*i are not just those for whom you feel a certain fondness. They include your kith and kin, indeed those with whom you have reciprocal ties of mutual obligation. In courts of law each side marshalled their *philo*i in their support (Humphreys 1985, Herman 1987, Konstan 1997), and they were certainly expected to turn up in such a capacity, for if they did not, that would be taken as a serious negative reflection on the probity and trustworthiness of the parties in question.²

² Similar issues in relation to notions of kinship in present-day communities in Papua New Guinea are discussed by Strathern 2005, 2019 and 2020. That most recent study of hers presents a lucid and

With such examples we are still dealing with situations that pose difficulties where we are unlikely to conclude that there is a total breakdown in communication. It is certainly not beyond the reader of ancient Greek texts to work out that the term regularly translated 'friend' often carries very different associations from those that English rendering prepares us for. We have no single word in English that will do as an exact equivalent.³ But we warn our own readers of that with a footnote explaining the problem and by putting our provisional, imperfect, rendering in 'scare quotes'. But the problems the anthropologists put before us include ones of an altogether different order of magnitude. We are presented with accounts of radically different ontologies, different worlds indeed, between which, some would argue, there are incommensurabilities that rule out translation and mutual understanding (cf. Severi and Hanks 2015).

Yet it is not that the anthropologists have nothing to say about such ontologies or that they are reduced, in Wittgensteinian fashion, to silence: 'whereof one cannot speak, thereof one must be silent'. On the contrary they have a good deal to say, even while what they tell us is sometimes designed to underscore the difficulties of interpretation. Thus some descriptions of what Descola calls an animist ontology (somewhat analogous, in certain respects, with the perspectivist ones of Viveiros de Castro) proceed from observations about the beliefs and practices of certain indigenous communities in many different parts of the world, and certainly not confined to Amazonia, which bring to light very different conceptions of the relations between humans and other living beings. In such groups as the Araweté or the Achuar jaguars are said to have associations with other jaguars that mirror those between humans. Their societies are organised just like human ones, their rules of commensality similarly. When they drink the blood of their prey, they see that blood as beer. It is because the jaguar has the body that it does that its perceptions are those it has, quite unlike those that humans have, courtesy of the bodies we have.

Let us look at this case in a little more detail and proceed with caution to pinpoint where communication seems possible, and where it may be thought to be under threat or even to break down. First as we said, it is

revealing discussion of the historical and dialectical variations in the understandings of English terminology for friends, kin and relations generally.

³ We shall encounter plenty of examples of this in the studies that follow. Thus notoriously there is no single English term that will do as a rendering for the Chinese *qi* 氣, which spans both 'breath' the substance and 'energy', so we resort to transliteration backed up by paraphrase. The term *shui* 水, usually translated 'water', is glossed in a Chinese text as a process, as 'soaking downwards', what flows, just as 'fire', *huo* 火, is 'flaming upwards', comments that are closer to a Heraclitean view (cf. Chapter 8).

not the case, of course, that the anthropologist is reduced to silence in such an encounter. On the contrary the analyses in terms of perspectivism (Viveiros de Castro) or of diverging views of physicality and of interiority (Descola: cf. below, Chapter 4 at note 1) aim to provide us with a key to understanding even if that understanding is limited and subject to the possibility of suspending belief in what our own dominant or default naturalist ontology would tend to commit us to.

But then we also have to recognise differences between what the Araweté perceive and what they say the jaguar does. The Araweté are absolutely clear that the scene before them is of a jaguar consuming its prey and drinking its blood. But on the basis of beliefs that are considered to be authoritative (being endorsed by their shamans for instance) they appreciate that what the jaguar itself sees is very different, namely that it is drinking beer. All perceptions depend on the bodies of the perceivers. There is no way in which these stand to be corrected in terms of a perceiver-less, 'objective' account of what there is, for that flies in the face of that very principle that all perceptions are perceiver-specific. 'Objectivity' in that sense is beyond reach; indeed it is not a recognisable goal of cognition.

The consequences for language are far-reaching. 'Beer' and 'blood' do not have one determinate referent each. Rather the referent varies with the perceiver. In any statement in which such terms appear there is what Viveiros de Castro (2004) calls a 'controlled equivocation'. When we think to use the term 'beer' we must always consider 'for whom'. We may answer that 'for the jaguar', but even here there is an indeterminacy, for a jaguar may be a shaman in disguise and a shaman in turn may be a disguised jaguar. You never know for certain, that is.

We have by now left far behind the world we normally assume that we can take for granted, one of stable objects apprehended by equally stable subjects. But the problem that faces not just the ethnographer, but all of us, is obvious. What is the relationship between the beer spoken of as what the jaguar drinks, and the beer the Araweté or we consume, where we might take refuge in using 'scare quotes' in the former, but not in the latter case? We have said that certainty is unattainable and even that in certain instances objectivity is not the goal. But that does not mean that error is impossible, not just in the case of the anthropologist commenting on the Araweté, but for the Araweté themselves. On the contrary the ethnographic reports are full of cases where the indigenous peoples studied themselves puzzle over how to translate what has occurred into the

language of jaguars or other creatures,⁴ and they certainly do not always accept what their own shamans tell them.

So a common or garden sense of the possibility, and the need, to correct error sits alongside a deeper recognition that much more may be at stake, for example where the whole relationship between humans and other animals is implicated. Yet we must remind ourselves that this is not just a matter of some set of quirks in indigenous beliefs that ethnography throws up. The wine in the Eucharist that the Christian faithful see as the blood of Christ presents an analogous problem. For the outsider to pronounce this to be a mere mistake is liable to miss the main point, that what is at stake is a complex of beliefs to do with a God who sent his Son to earth to redeem humans from their sins. Coming to terms with Christianity certainly involves not just an assessment of a variety of counter-intuitive empirical claims (as we call them) but also responding to the underlying values that it incorporates and the possibility of redemption it entertains, and this is no mere matter of a set of articles of belief, but of how one lives one's life and cares for one's immortal soul. Coming to terms with indigenous perspectivism, likewise, means reacting to its implications concerning the relationship of humans to other animals and to the environment as a whole. There are not just questions of values at stake, but conceptions to do with the possibility of understanding. The issues are simultaneously political and cognitive (Viveiros de Castro 2015). While the Araweté recognise that they may make mistakes, for them there is no ultimate objectivity, trumping all subjectivities, that can be attained. For some Christians the argument would be that it is only the believer who can understand. If that serves to protect their faith, it does so at the price of a certain exclusiveness, but then some believers may well not be at all concerned with that objection or indeed with any other criticisms that the non-believer might advance.

There are, then, two distinct aspects to the bafflements we may experience, though these may sometimes have been run together in the literature. On the one hand, there is the hermeneutic task, of understanding what is

⁴ Vilaça (2016: 62–3) records a set of exchanges, where the Wari' entertain different possibilities about how to effect the translation of a term that occurs in a story of the experience of a girl who goes out walking with a person whom she believes to be her mother but who turns out to be a jaguar. The narrator says that they stopped to eat *nao'* fruit. But what was it, the audience asks, and several offer different interpretations, such as *kwari* (seven-banded armadillo) or *kahwerein pikot* (tail of six-banded armadillo) or perhaps *paca* (*mikop*). But the person who had offered the first suggestion 'immediately corrected herself: "That's it, papaya is *paca* . . ." meaning, for the jaguar'. Vilaça comments that it was as if those who listened to the story had a Wari'–jaguar dictionary in their minds which they used to translate what the narrator said.

reported, in the first instance by the ethnographer or the historian of science and beyond them by the subjects they are studying. On the other, there is the very different project of indeed leaving our own ontology behind and adopting on our own behalf the new perspective we are introduced to. The first, hermeneutic task is necessarily an ongoing one, never complete, always subject to further insights. But while understanding regularly depends both on sympathy and on a willingness to suspend belief, it does not entail endorsing what one has understood. In the study of ancient thought, we do not, we cannot, adopt the position of a Pythagorean or identify with Plato or with Confucius or Zhuangzi. There must, as we have recognised before, be limits to the understanding we can hope to achieve. We should always strive to push those boundaries back, but that does not mean that to do so we have to endorse the perspective of what we have understood. It is not fruitful to adopt Aristotle's account of natural and forced motion that ignores inertia, though the historian of science has an obligation to probe the considerations that led him to his view, while guarding against the assumption that his agenda corresponds to what we mean by 'dynamics'. Similarly to treat his studies of animals and plants as 'biology' is, among other things, to ignore the differences between his view of living things and those that have prevailed since the nineteenth century (Cunningham and Williams 1993, cf. Cunningham 1988). On the other hand, however, we are normally inclined to accept what physics tells us about the constitution of material bodies even when that appears to contradict our experience of their solidity. We do not reject the experience in favour of the theory but allow that both can convey useful information according to the different criteria each invokes, and we should further accept that there is no second-order super-criterion by which those divergent ones are to be judged.

Comparison, as both Candea (2019a and 2019b) and myself (Lloyd 2015: ch. 2) have argued in different contexts, is always geared to some agenda, never totally innocent. It may serve the aim of putting the comparanda on a level with one another (Candea's horizontal comparison) or it may serve to endorse an implicit or explicit claim for the superiority of one side of the (in this case vertical) comparison. Even the assertion that in some instances comparison breaks down may be a covert argument for the superiority of what is thereby claimed to be incomparable (Detienne 2008). But the very fact of making such a claim implies that a comparison might have been possible even though in the instance in question it was thought to fail. If we say that this failure was a matter of the dissimilarities, the differences between the cases, that itself depends, to be sure, on an act of comparison.

But this is not to say that comparison is always worthwhile. On the contrary it is easy to show that at the limit anything may be compared in *some* respect to anything else. We have an instance of that in Plato's dialogue the *Protagoras* where Protagoras is challenged by Socrates to say whether justice has some resemblance to holiness (the dispute between them is on the unity of the virtues). To that Protagoras answers in a fit of pique that anything resembles anything else in *some* respect (331d) (thereby anticipating Popper by several centuries).

That very fact dictates that we have to discriminate between the worthwhile and the worthless examples of the exercise. There is obviously no algorithm to determine how to accomplish this. But that does not mean that such discrimination is hopeless. Even if there are plenty of instances where the exercise yields only useless information, we can set against those cases others where comparison, even and perhaps especially between starkly divergent sets of beliefs and practices, can yield new understandings. The work is challenging, hard and never-ending. But it is one *raison d'être* of the endeavour of the comparative history of science. As we launch into new case studies later in this inquiry we shall see that each poses its own peculiar difficulties and so demands not one single overall solution, but clarifications that are specific to the problem in hand.

Meanwhile it is as well to remind ourselves that while translation and understanding are often problematic, there are straightforward cases where success in communication can be verified in practical terms. Sitting down to share a meal, maybe at a table, maybe not, we ask our neighbour to pass the salt, and she duly does so. We may even make this request in a gesture rather than in words, whether from our own or her natural language insofar as we have learned to use it. The fact that we may have very different beliefs about the valence or the symbolic associations of this exchange, let alone of sharing a meal, does not preclude the communication and the mutual understanding of the request. Although there are plenty of intensely perplexing issues for us to try to unravel in making sense of fundamentally divergent cosmologies and scientific understandings, it is as well not to lose sight of situations that are considerably less problematic. I have on occasion referred to what I have called 'bridgeheads of intelligibility'. That expression has been criticised, with some justice, for its – unintended – militaristic associations. The point, however, that I would retain is the simple one that elementary communications may provide a starting point for more complex understandings. Of course even the simplest acts of communication are not immune to error. At the same time the very possibility that they may be corrected shows well enough that some progress can be made. At least the moral would be that we

should not be deterred from attempts at particular interpretations and clarifications by the difficulty we may continue to experience in giving some overall justification for how new understandings can ever be reached. Let the success of my own efforts in that direction be judged by the outcome of the studies that follow.