Introduction

Randy and I have a simple claim. There is this notion, incommensurability, which entered modern thought from Kuhnian philosophy of science and which is now applied hither and yon to disparate collection of concepts; it would not surprise us, some night, to have a waiter inform us that red wine is incommensurable with grouper. This situation would be just a standard matter of semantic distension, not unlike what has happened to paradigm, another word from Kuhn, except that it has spawned the phrase “incommensurability of values”. That phrase implies value systems can be incompatible in such fundamental ways as to foreclose discussion. As rhetoricians, we are compelled to say, “Balderdash!” Incommensurability doesn’t even obtain in philosophy of science, though that isn’t really our concern; still less does it have purchase of any kind in the context of value systems. Moreover, the suggestion that it does strikes us as pernicious.

Our claim, then, is that incommensurability is wrong in general, when applied beyond its originally narrow, technical, pre-Kuhnian sense, and that it is spectacularly, misleadingly, reprehensibly wrong when applied to discussions of values.

Incommensurability

Incommensurability, the word and the concept, rose into broad intellectual awareness through the work of Paul Feyerabend and, especially, Thomas Kuhn, while they were both at the University of California, Berkeley, in the early 1960s, and chatting regularly with each other. They both borrowed the word rather spontaneously from mathematics; neither could remember who used it first, nor who mentioned it first to the other, and neither ever claimed priority nor accused the other of piracy. Both published influential works in 1962 in which incommensurability played a key role.
Feyerabend and Kuhn each applied it to circumstances in the history of science, for somewhat different motives, but to ultimately the same ends. In mathematics, dating back at least to Euclid, incommensurability denotes a very narrow and rigid concept: the unavailability of a common divisor for two given numbers; 3 and \( \pi \) are incommensurable in this sense. Feyerabend and Kuhn, however, extended the notion to much bigger, more complicated, and semantically more capacious notions than numbers: scientific research programmes.

Working from the history of science, they identified theories in the same domain that configured their data in incompatible ways: Aristotelian and Galilean mechanics, for instance, Copernican and Ptolemaic cosmology, classical and quantum physics. They both held these incompatibilities to be fundamental, and irreconcilable; hence, giving our central term a new and highly expansive sense. These pairs of theories, that is, and other such pairs, were said to be incommensurable.

Both Kuhn and Feyerabend appealed to the Sapir-Whorf, linguistic relativity hypothesis, which was intellectually popular at the time. That hypothesis suggests strongly distinct language communities (say, Hopi speakers and English speakers) encounter the world in very different ways, even exclusive ways, such that members of those communities inhabit different realities. Moreover, these communities could never be brought together, because the concepts their languages coded could not be accommodated by the other languages. This analogy led them, and a great many philosophers downstream from them, to talk a lot in terms of translation; particularly, of its nonavailability for cases of theory pairs branded incommensurable.

This analogy was abetted by a peculiar philosophico-linguistic notion. Philosophers liked to think at the time, and for a long while before, that languages are inherently rigid formal objects much like predicate calculus; or at least that they could be reduced to such rigidity. This notion led to a definition of a language as “a set of sentences”. Theories, too, were said to be “languages” and “sets of sentences”. Both descriptions were meant literally. Incommensurability, then, holds of these formal objects, sets of sentences.

OK. Here’s a subtotal of where we are:

1. Incommensurability comes from mathematics, where it applies very rigidly to pairs of numbers.
2. It moves from there to a discipline which has historically characterized itself as inimical to rhetoric; namely, philosophy.
3. In that context, the notion rests on the analogic argument that: theories are like languages; commensurability is like translation; languages can’t truly be translated; therefore, theories are incommensurable.
Incommensurability, then, is a problem of form and logic—in the narrowest, the most rigid, and, to philosophers, the least rhetorical sense of those terms.

Now, incommensurability is a big notion in philosophy of science, with a range of takes on it. But, in general, philosophers treat incommensurability as a problem of theories or paradigms; that is, of science in the abstract. They say that Theory X is incommensurable with Theory Y when the latter cannot articulate claims or theorems of the former, just as Language X might contain expressions or modalities that cannot be translated into Language Y. In application, philosophers take incommensurability not so much to be a property of one theory with respect to another, but of pairs of theories; X and Y are incommensurable if they have claims and theorems that are not intertranslatable. Philosophers of science don’t seem to be aware that translation here is a metaphor; even more problematically, there seems to be little indication of what the tenor of that metaphor might be.

Values

In the wake of Kuhn’s and Feyerabend’s arguments—especially from the immense celebrity achieved by Kuhn’s *Structure of scientific revolutions*—the notion of incommensurability has dilated even further, to the point where cultures, religions, and systems of ethics are held to be incommensurable. In post-modern thought, incommensurability is tossed around as a foregone conclusion about virtually any two systems one might name.

The scholar most responsible for the phrase “incommensurability of values” is Isaiah Berlin, with his explicator, John Gray, as a close second. We will take them up for a few minutes because they do not toss around the notion lightly. They give it substance and use it as the foundation for their liberal pluralism. That is, they provide us with something to refute.

"Aeschylus, Shakespeare and Samuel Beckett,” John Gray says, “are supremely great dramatists; but we cannot rank their work in value” (2000, p. 37). We can, of course. Shakespeare, Aeschylus, Beckett. There. We just did. And people do such things all the time. But Gray implies it is problematic to do so; it can’t really be done, in some obscure sense of “really”. As dramatists, they are incommensurable. You might say “Aeschylus, Shakespeare, Beckett”. Your mom might say “Beckett, Aeschylus, Shakespeare.” We can’t easily agree.

We can’t rank the Taj Majal, the Eiffel Tower, and the Grand Canyon. We can’t rank a walk in the park and *For whom the bell tolls*. A roller coaster and a skinny dip. Or rather, Berlin and Gray suggest, we shouldn’t, because their values are incommensurable. "To claim that goods are incommensurable,” Gray brings down the hammer, “is not to rank them. It is to say that they cannot be ranked" (2000, 41).
As long as the discussion is kept to aesthetics, the consequences of this perspective are not especially severe. You like Rembrandt, we like Bacon. You say “tomato”. We say “tomahto”. Potahto, potato. Let’s call the whole thing off.

But when the discussion moves to ethics, as it regularly does, the consequences of calling dialogue off can be far more troublesome. Freedom of information and privacy are conflicting values. Incommensurable. Separatism and Federalism? Incommensurable. Islam and Christianity? Incommensurable.

There is a plurality of values, Berlin and Gray assert, and we’re with them so far. But many pairs of values are incommensurable, they also assert, and that’s where they lose us, and, we hope, you. Berlin and Gray are both subtle thinkers. Neither is given to despair, and both advocate a robust pluralism that they believe follows from incommensurability of values. David Gordon sums up the position this way:

No advocate of a way of life can say that his values outrank all others, however good they seem to him. If so, will we not all agree on a politics of toleration? How can we demand that others fall in with our pet universal scheme, if they hold incommensurable goods of their own? Will not a policy of modus vivendi recommend itself instead? (2001, np)

Perhaps. But let’s try to recuperate the root metaphor again. We’re a long way from geometry. Chandran Kukathas defines incommensurable in this context as “incomparable by any rational measure” (1996, np), and there are frequent invocations in this work of a specific passage in Kuhn concerning the choice between incommensurable theories:

There is no neutral algorithm for theory-choice, no systematic decision procedure which, properly applied, must lead each individual in the group to the same decision. (Kuhn 1970, p. 200)

But, of course, scientists are remarkable for making decisions. In fact, they rank theories and bet on the one with the highest rank, precisely what they are, pace Gray and Berlin, prohibited from doing. They don’t all assign the same ranking, it’s true. As William Whewell put it in the nineteenth century, when decisions are to be made between competing paradigms, “the old opinion passes away with the old generation: the new theory grows to its full vigour when its congenital disciples grow to be masters; John Bernoulli continues a Cartesian to the last; Daniel, his son, is a Newtonian from the first" (1864 [1851], 385).

It may even be true that there is no theory-neutral mechanism to guide such rankings. But, still, they rank. What’s more important, Science—the personified abstraction—decides. A consensus is reached. Physics becomes Newtonian rather than Cartesian; John and Daniel Bernoulli are just bit players in the process. And here’s where it gets interesting. It isn’t just “theories” that are ranked in such circumstances. It is often methods as well, and data, and instruments, and concepts, and – yes – values.
These decisions happen precisely because the values can be ranked, along with methods and data and instruments and concepts and theory. They are compared, decisions are made, scientific life goes on. They are not incommensurable. Frankly, it doesn’t even make sense to say that theories are incommensurable, any more than it would to say that some theories are even, others are odd, or that some whole and others fractions, or that some are double-digit, some triple.

Now, there is no neutral algorithm for these rankings, or at least not for all such rankings, and certainly not for big rankings like Aristotelian mechanics and Newtonian mechanics, or Shakespeare and Aeschylus, or Federalism and Separatism. That doesn’t make them incommensurable—whatever that would actually mean—it just makes them tough to reconcile. It means there is work to be done. It means rhetoric is called for.

**Translation**

Returning to the linguistic analogy for a moment, there is a remarkable fact about translation: it succeeds. It doesn’t succeed all the time, nor does it succeed wholly any time. Nuances are always lost. Nuances are always added. Misunderstandings occur or, sometimes, dissolve. Some languages have no tense system, some languages have elaborate tense systems. Some languages encode gender, some don’t. Some languages glue longs strings of nouns together, some keep them assiduously apart. All languages have words with no direct correspondents in other languages. But, despite all of these obstacles and more, translation succeeds. It’s difficult, exacting, creative work. But it can be done.

Why? How? This is not the time or place to go into translation theory, and there is no unanimity in this field even if we had the time and place to go into it. But translation works because of two things, the immensely flexible resources of natural language, and the goodwill of all the parties. The first is always present: translations can borrow words, invent words, reshape words, paraphrase, allude, figure, and contextualize. The second, goodwill, is not always present. If all parties are not willing to tolerate the compromises, losses, and additions; if they dogmatically insist on some unavailable precision, then the translation will not go through.

And this, in fact, is why scientists fail to agree in contexts deemed to exhibit incommensurability, the lack of goodwill. There are important reasons for this lack of goodwill in science; dogma, faith, and irascibility can all be very productive when they are turned towards the strengthening of arguments. But theories and paradigms are indeed similar to languages in some critical respects—especially in their wealth of resources, their flexibility, their capacity to borrow and paraphrase and allude and figure and contextualize, even to live with imprecision. They are not sets of sentences, formal objects. They are living, growing, adapting structures. Incommensurability, in short, is not a problem of theories but of theorists. Scientists usually prefer to protect and insulate their own programmes, and attack others.
Values redux

As I said, science is not really our concern. It is just the anchor for our argument, because that is where the usage of “incommensurability” that concerns us arose. And it is a useful stalking ground for us since theories—because they traffic in equations and obey quite strict operational rules and are governed closely by empirical constraints—are closer to formal objects than notions like “Shakespeare” and “Aeschylus” or “Federalism” and “Separatism”. If incommensurability does not hold for scientific theories, and we have sketched the argument for why it does not, then, a fortiori, it does not hold for values.

People from different value systems often do not get along, we admit. We just refuse to blame it on the value systems. We blame it on the people. Getting along, especially when you are deeply enmeshed in conflicting value systems, is hard work. It requires flexibility and goodwill, and a rhetoric of toleration. If you label those value systems “incommensurable”, though, you declare them, by fiat, to be beyond the reach of goodwill and rhetoric.

Pessimistically, those claims of value-incommensurability lead to events like those of 11 September 2001, and the aftermath. The implications of applying incommensurability to values—in general, let alone for a specific nation that prides itself on multiculturalism—range between cold isolationism and flaming terror. But when you move from the pristine formality of mathematics to the flexible semantics of ordinary language, where the resources of rhetoric have their freest reign, the discourse opens up, agreements can be negotiated, perspectives can be shared, and the possibilities for common measures are never foreclosed.
Conclusion

But you and I, we've been through that, and this is not our fate,

So let us not talk falsely now, the hour is getting late.

—Bob Dylan

Please note that we are not arguing for a simple commensurability model. We are not claiming, for instance, that all values can be reduced to one, against which the rest can all be measured. Socrates had such a view, oriented around The Good. Bentham and Mill had another species of simple commensurability of values theory, oriented around happiness. These are attractive positions, but we do not commit to them. We do not claim that there is a value-neutral algorithm that would lead everyone to the same decision in the collision of values.

We only argue that the weakness of the analogy to mathematics vitiates the foreclosure of common measures. Berlin and Gray see value-incommensurability as breeding a liberal pluralism, a live-and-let-live ethics of toleration. We see the opposite, a dangerous unwillingness to admit negotiation.

A rhetor espousing X and a rhetor espousing Y may not get along, and they may refuse to explore their options rhetorically any further, to the point where they fall to hostility, violence, terrorism. But, because the X and the Y are necessarily constructed out of language, there is nothing inherently limiting about them. The blame belongs to the rhetors—or, rather, since they have abnegated rhetoric, it is more proper to call them anti-rhetors. It does not belong to their culture, nor their religion, nor their values, but to them.

Where there is rhetoric, there is hope.

Work cited


Notes

1 The provenance of the concept may date to Pythagoras, about whom there is an apocryphal story that—so abhorrent was the notion to him—he drowned its originator, and swore the rest of his disciples to silence about the murder, and, more importantly, about the existence of the concept. But someone must have talked. The notion ended up in Euclid’s Elements (and in Greek thought generally), where the word is actually asummetra (a- = ‘not, without’, as it does in the English words we have borrowed it for, like asexual and amoral; sum- = ‘together, shared’; metron = ‘standard, measure’). Our Elements is filtered through Medieval Latin, whence the modern term, incommensurable, comes. The Latin word (incommensurabilis) is virtually a point-to-point mapping of the Greek one (in- = ‘not’, as in the English terms indecent and intolerant; com- = ‘together, jointly’; mensura = ‘measure’). But it adds something new. The suffix, –bilis (= ‘capable of or worthy of’) forecloses discussion when the word moves into a wider orbit: in-X-able effectively means ‘incapable of X’. The semantically empty adjective-forming suffix –atus (which makes its way into English as –ate) does not have this implication; it does not foreclose discussion, nor commensuration. Incommensurate is used when things are askew: when someone's salary is incommensurate with her responsibilities, when a treatment is incommensurate with an illness, an appeal with its audience. When X and Y are incommensurable, there is no recourse. When they are incommensurate, something can be done. The salary can be raised, the treatment modified, the appeal reworked. In the first case, X and Y are immutably at odds; in the second, there are remedies.