Incommensurability in Science

Laddawn

and Physics

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of messages between different individuals. It is based on the idea that people have different perspectives, experiences, and backgrounds, which can lead to misunderstandings and misinterpretations. This concept is often discussed in the context of communication in a globalized world, where people from diverse cultures and languages interact. The challenge is to find ways to overcome the barriers that prevent effective communication and understanding between different groups.
I suggest that there are three such reasons, but they do not, even together, add up to a good reason. The first is that values are not uniquely interpretable: ‘individuals may legitimately differ about their application to concrete cases’—indeed this ‘individual variability in the application of shared values may serve functions essential to science’. The second is that they conflict: scientists will differ about the ‘relative weights to be accorded to these and to other criteria when several are deployed together’. The third is that they are held to be without justification: in Kuhn’s words, ‘the experience of scientists provides no philosophical justification for the values they deploy (such justification would solve the problem of induction)’. But the first two reasons together only serve to make Kuhn’s familiar, if important, point that for practising scientists there is no ‘shared algorithm of choice’. At most, the second implies that, for them, theories may manifest ‘overall incommensurability’, since ex ante they are rankable in too many ways that cannot be combined into a single way. Ex post, however, the problem dissolves: subsequent developments sooner or later select out which criterion or criteria turn out to have been the best indicator(s) of progress.

These first two reasons certainly do not, as Kuhn seems to think, show that theory-choice cannot be rationally grounded, which is the third (alleged) reason for incommensurability, namely, that all we can say is that theory-choice goes according to ‘different sets of shared values’ and ‘the decision of the scientific group’. To say this is to deny that these values have a rational basis as reliable, if fallible, inductive indicators of increasing verisimilitude and of scientific progress, as measured by observational success. Neither Kuhn nor Feyerabend, nor anyone else, has given any good reason for denying this. At best, Kuhn has pointed to the crucial role of judgement in interpreting, applying, and weighing these values and, importantly, to the role of the scientific community’s traditions and practices of training, debate, and mutual monitoring in developing, testing, and combining individual scientists’ powers of judgement. But, once again, Kuhn has not shown that what makes for good judgement is just a matter of community decision.

The second alleged reason for incommensurability of theories is what is claimed to be variation in the standards which specify what counts as a good explanation. This may be thought to be a consequence of variance of values, which we have already considered, or it may go beyond this to cover the ‘method, problem-field and standards of solution accepted by any mature scientific community at any given time’. So, Kuhn writes,

as the problems change, so, often, does the standard that distinguishes a real scientific solution from a mere metaphysical speculation, word game or mathematical play. The normal scientific tradition that emerges from a scientific revolution is not only incompatible but often actually incommensurable with that which has gone before.

But this is a poor argument. For, first, the examples Kuhn cites appear to show, rather, shifts in assumptions about what is to be explained. And second, and more deeply, the argument trades on an ambiguity, or worse an equation, between ‘explanation’ as a psychological or ‘subjective’ category (whatever is considered to solve puzzle X by scientist Y) and explanation as an evaluative notion (distinguishing between success and failure, about which Y may be mistaken). In short, successful revolutionaries (Galileo, Newton, Faraday, etc.) have generated results that bear on the observation, prediction, and control of nature, to which their Old Regime forebears, whatever their views about the scope and nature of explanation, could not but attend. Doubtless they had different views about what constitutes explanation and doubtless they drew the boundary between science and metaphysics in a different place, but they shared with their successors the cognitive interests and goals in terms of which those successors eventually come to win the argument. As Richard Rorty admits, ‘Galileo, so to speak, won the argument’ with Cardinal Bellarmine, but this is not, as he suggests, because Galileo created ‘the notion of “scientific values”’, except in the sense that he detached them from others with which they were previously indistinguishably fused. What was new was the focus on observational success, predictive accuracy, and so on, irrespective of theological and cosmological warrant. Of course, who ‘wins the argument’ may only emerge in time, long after the revolution is over, but the reasons for declaring the winners are not themselves just another product of the Revolution itself.

19 Kuhn, *The Essential Tension*, p. 322.
20 Ibid. 324.
21 Ibid. 335.
22 Ibid. 331.
23 Ibid.
25 Ibid. 103.
26 Ibid.
The concept of communicability is complex and multifaceted. It is defined as the ability of an idea or concept to be shared, understood, and transmitted effectively. Communicability is not only a function of the content but also depends on the context in which it is shared. Theories of communicability suggest that ideas with clear and consistent meaning are more communicable than those that are ambiguous or contradictory.

However, the notion of communicability is not without its challenges. For instance, the more complex an idea is, the harder it may be to communicate it effectively. This is because complex ideas require a higher level of cognitive processing, which can be difficult for some individuals. Additionally, cultural differences can also affect communicability, as ideas that are easily understood in one culture may be more challenging in another.

Despite these challenges, the importance of communicability cannot be overstated. In today's interconnected world, the ability to communicate effectively is essential for success in both personal and professional contexts. By understanding the principles of communicability, we can improve our ability to share ideas and connect with others, ultimately leading to greater understanding and collaboration.
In recent years, the concept of incommensurability has been a central theme in the fields of philosophy, science, and anthropology. Incommensurability refers to the situation where two concepts, theories, or models are not comparable or cannot be translated into each other. This is in contrast to the idea of commensurability, where two or more concepts can be compared and measured on the same scale.

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whether better nor worse than money or other commodities are.

Thus, for example, any one who holds the view that everything is reproduction of his own goods would claim that he is better off if he has more money than he does if he has less. But the question whether there are limits to reproduction of goods is itself a question about what constitutes reproduction of goods. And the question whether there are limits to reproduction of goods is itself a question about what constitutes reproduction of goods.

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III

Incomprehensibility

The concept of incomprehensibility is explored in this section. It is argued that when decisions are made, the reasons behind those decisions are often incomprehensible to others.

Another possibility is that an overall model across the individual or system.

The second point is that the decision process can be viewed as a series of stages in the case of institutional practice.

Of course, the current situation may be reduced multi.

South Africa and Economics (pp. 6)

This diversity of standpoints from which moral claims come has