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SYNTHETIC A PRIORI PROPOSITIONS

This paper was given as part of a symposium on the synthetic a priori at the Bryn Mawr Meeting of the American Philosophical Association in December 1951. The two principal contributors were Wilfrid Sellars and Rulon S. Wells. Sellars' paper, 'Is There a Synthetic A Priori?', was published in a revised form in Philosophy of Science 20 *(1953), 121–38. No attempt has been made to bring this transcript to a fully publishable form, but this version is posted here for the convenience of scholars.*

I, TOO, RECOLLECT with feelings not unlike those of Mr Sellars – the sense of battles won and lost long ago – the days in which philosophers used to discuss problems raised by propositions (or sentences) which seemed at once a priori and not 'analytic'; using 'analytic' to mean, as I gather Mr Sellars means, propositions whose truth is established by logical rules alone. I think he is quite right in thinking this issue is not as dead as it may seem. And I seem to remember that one of the principal sources of the difficulty was what used to be called, in those far-off days, 'ostensive definitions', which have since been discussed under the title of 'semantic', as opposed to 'syntactical', rules.

The difficulty was somewhat of this kind: I asserted, for example, that 'Anything that is of a specific shade of yellow Y is more like anything of a specific shade of brown B than it is like anything of a specific shade of purple P.' This was a general proposition, and it appeared to be universally true. Or alternatively I said, 'Nothing can look to an observer yellow and blue all over in the same place at the same time', or I said, 'If colour patch A is to the right of colour patch B, and colour patch B is to the right of colour patch C in the same visual field – along the same straight or fairly straight line – then patch A (in the specious present) can certainly not be other than to the right of patch C.' These propositions had a strong a priori look, because it seemed difficult or impossible to think of any experience which could in principle

falsify them; at the same time, there was a difficulty in holding them to be analytic, at least in a syntactical sense of that term, because such terms as 'yellow', 'blue', 'to the right of', 'same time', 'same place' were not and did not need to be verbally defined at all. It was held, I think correctly, that one could learn to know how to use them by some process of 'ostension' – by some kind of pointing, or its equivalent in non-visual fields, which was part of the teaching of the use of symbols in the education of children or even the training of animals. Now, if I learned the meaning or use of 'yellow' or 'red', or 'loud' or 'sweet', in such a way, it seemed absurd – inconceivable – to say that the contradictories of such general and apparently a priori propositions were analytically false, that is, self-contradictory or incompatible with specific formation or transformation rules, because no general rules had come into play, no formal definitions in terms of which self-contradiction could occur had been introduced. In other words, what the absurd propositions offended against were not formal but 'ostensive' definitions; and because these were acts of pointing or the like, they had no 'logical structure' in terms of which syntactical difficulties could in principle arise. And this seemed to show that propositions of the type 'Yellow is more like brown than like purple' were true neither empirically, nor yet analytically in the sense of either being made true by logical rules alone or being themselves statements of logic. And this seemed to threaten the whole of what Mr Sellars called 'concept-empiricism', and Russell leant heavily on this outcome in his efforts to mark the limits of empiricism.

Efforts were made to escape from this disagreeable consequence by trying to show either: (*a*) that the propositions in question were in fact empirical, for example, that one might wake up one morning and find that something yellow was more like purple than like brown, with the semantic senses of yellow and brown and purple unaltered; but this did not seem very plausible, that is, either imaginable or conceivable; or, alternatively, (*b*) that the sentences were crypto-analytic; that is, that we were in fact, though implicitly, using a *definition* of 'blue' according to which 'blue' meant one of a continuous scale of specific qualities the logical distance of whose members from one another was part of their definitions. But this was equally unplausible: the defenders of the theory insisted quite reasonably that, having explained the use of 'yellow' and 'blue', 'to the right of' and the rest by pointing to

instances, they were neither saying nor allowing to be understood anything so elaborate as logical schemata of rigid scales or distances; that, in fact, any logical calculus of which such sentences would be regarded as the interpretation was itself derived from sets of propositions known to be true a priori on grounds other than their analytic truth within the calculi.[1]

The real trouble lay, of course, in the term 'ostensive definition'. The technique of teaching the use of empirical terms is so unlike the manufacture of a verbal definition that to refer to both under the common title of 'definition' leads to bad confusions. Thus to say, for instance, that the truth of these queer a priori propositions 'followed from' or was 'entailed by' ostensive definitions or semantical 'rules' was misleading, if by 'followed from' was meant anything like 'is entailed by' or 'is deducible from' or any other familiar logical operation, in terms of the kind of rules used in logic, or grammar, or mathematics. For ostensive definitions were *not* verbal, not rules, and in the strict sense nothing 'followed', no 'entailment' relations occurred. We learned the use of these words non-syntactically; that is, in terms not of one another but of a relation with empirical data; and yet, somehow, we appeared, without benefit of syntax, to be able to formulate *ex vi terminorum* universally true propositions with an incorrigible look to them. This seems to me the latest manifestation under which the old problem of the synthetic a priori has re-emerged in our own day.[2]

[1] [Here the following passage is marked 'omit': 'and I take Mr Sellars to be meaning something of this kind when he distinguishes explicit from implicit definitions in his exposition of the most formidable objection raised by metaphysicians, although I may have misunderstood him on this.']

[2] [Here the following passage is marked 'omit': 'Husserl and his school made much of this as a weapon against empiricism, and although this objection seemed a scandal to radical empiricists, it was never completely liquidated. Even Wittgenstein seemed to sin in this respect in his solitary paper read to the Aristotelian Society in the late 1920s, according to which even certain atomic propositions seemed to be incompatible a priori, not because of rules of syntax, but, as Mr Sellars puts it, *ex vi terminorum*. There always seemed something artificial about trying to press such propositions into the strait-jacket of being either empirical generalisations or, alternatively, statements whose truth derived from syntactical rules, whether these were conceived as being conven-

Some of the same difficulty seemed to crop up in a sentence of a slightly different form. Supposing a man says 'I want to be in Washington and London at the same moment', and we tell him that this is impossible. What kind of 'impossible'? Scarcely the physical kind, which makes it impossible for us to fly to the moon or, by thinking, to add a cubit to our stature. No physical or psychological technique could fulfil the man's wishes. Nor is it any use to say to him, 'This can be done only if you move faster than light', or 'Given our system of dating, clock readings and so forth, you could start from London just after half-past three by London time, and get to Washington before half-past three Washington time, if you travelled at *x* miles per second – and this is, of course, logically quite possible.' The man, if he was sufficiently clear-headed, would rightly object that when he said that he wanted to be in both places at the same moment he was not referring to clocks or calendars or the velocity of light, but meant it in the perfectly clear *subjective* sense of 'the same moment' – the psychological 'specious present' sense of 'now' as opposed to 'then', which is free from the difficulties introduced by the physical concept of simultaneity. Thus foiled, we might say, perhaps, 'You could be in London and Washington at the same time in your subjective sense of "same time" if you were a giant with one foot in London and the other in Washington. The fact that you are not is merely empirical; logically, or in principle, you could be.' To this the man might rejoin that he did not wish to be a giant; that he wished to be in London and Washington at the same time while retaining his normal size. 'In that case', we should finally say, 'what you ask for is quite impossible. It is *logically* impossible to be in two places at the same time.' If the man laments his inability to accomplish this feat, what is he regretting? Surely not something connected with the use of words according to syntactical rules? He wants to be in London and Washington at the same time; his wish may be unreasonable or Utopian, but it is idle to pretend that it is unintelligible; and to say that it is *meaningless*, according to our syntactical rules, is merely an objection to rules which prevent us

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tional or not. Yet the whole of empirical philosophy was in grave peril if such truths implied 'objective logical necessities', relations of mutual implication or repulsion perceived only by the magic eye of non-empirical inspection, from which Hume and the classical Russell should have liberated us for ever.']

from saying something which in our non-syntactical moments – on semantical grounds – we may regard as indeed a queer request, but one we understand quite well.

Or again a man may say, 'I wish to meet Napoleon at the height of his glory', or 'I regret I cannot meet Napoleon at the height of his glory.' Why can he not? Because Napoleon is dead, and by definition the dead cannot be met. If the man had lived earlier he could have met him. It is a mere empirical fact that he was born in the twentieth century and Napoleon in the eighteenth. The man might have been born in the eighteenth. So the impossibility is something empirical, and due to dates of birth. But now supposing the man says, 'Why can I not overcome this difficulty, as I do other empirical difficulties, by some bold invention? A century ago I could not rise more than *x* feet above the ground, and now aeroplanes have made this possible. Why can I not cause myself to have been born in the eighteenth century? Or, better still, live my twentieth-century life and also meet Napoleon in 1806?' After we have done the necessary drill – disposed of all pseudo-problems generated by misleading metaphors about time as a stream, or as a kind of space up and down which it is possible to 'travel', and so on, and explained that time is a logical construction out of 'before', 'after' and 'at the same time as', we are still faced with the man's regret, the child's lament, that there is something he would like to do and cannot – cannot be in two places at once, cannot ever meet Napoleon – not a Napoleon resurrected from the grave (which would be a miracle – that is, only empirically unlikely), but Napoleon as he was in 1806, before he died, and not after. And this is certainly not the sense of 'cannot' in which we say 'Given the rules of grammar, the word "are" cannot follow a singular noun', or 'Given the rules of arithmetic, two plus two cannot be seventeen'; for, in the cases we have chosen, what creates the impossibility – the 'cannot' – is not the rules of logical grammar, which, in some sense, we can manipulate. In the old days we replied to queer demands: 'You cannot be in two places, or meet Napoleon, because of the nature of Space, or because of the nature of Time.' And this was regarded by empiricists as no answer at all, but metaphysical darkness. Yet although it may have been a bad answer, the syntactical answer is no answer either. Whatever the confusion in the mind of those who ask for the impossible, they are not asking for a reform of language, for greater linguistic opportunities, nor even for a different conceptual framework

(whatever that means), and to tell them that they are is to apply remedies worse than the diseases which they affect to cure.

But perhaps an answer could be given along the following lines. It seems to me that apart from empirical terms and empirical concepts, with which we classify the items of our experience according to their specific similarities and differences, employing empirical concepts and general laws in the sense in which pragmatists speak of them, as congealed inductions of various kinds, we do in fact think and perceive in terms of what I can only call very general categories in the proper Aristotelian and Kantian sense of this useful word. Scientific concepts are the most artificial of these, and are invented or employed *ad hoc*, because enough conjunctions occur to justify the invention of special terms; such concepts are clearly defined in terms of specific sciences, and are useful to the extent to which they facilitate new inductive generalisations, or an orderly organisation of existing knowledge by an integrated deductive system. But it seems plain that there are also certain very pervasive general characteristics in terms of which such concepts are in fact framed, and that these characteristics are so universal, and appear to have altered so little historically, that we take them for granted, and do not feel their malleability and fluidity and ambiguity or vagueness as we do that of scientific, and to a lesser extent that of common-sense, concepts or terms. And these very pervasive characteristics function, vis-à-vis the concepts framed in terms of them, as 'categories'; that is, as constitutive of the concepts, so that no concept incompatible with them, not constructed or applied in terms of them, is intelligible, in effect – though some are less intelligible than others.

Perhaps it would be truer to say that there is no sharp break between concepts and categories, but that there is a graduated scale[3] along which they occur, so that what may be conceived as an empirical concept at one level is a category vis-à-vis concepts, as it were, below it – closer to the empirical data. To give an example: the notion of material bodies is a category in terms of which the common-sense concepts whereby we classify and describe the furniture of ordinary life appear to be necessarily formed and applied; but it is still only a empirical concept – of a high order, but still empirical, and alterable at our convenience, and seen to be such when it proves inadequate to a description of, let us say,

[3] [An illegible word is inserted here in parenthesis.]

mental or psychological phenomena, or the kinds of things which modern physicists wish to say in certain contexts. We can, that is to say, 'tamper' with the notion of a material object, alter it if we find it convenient to do so, and thereby, no doubt, involve ourselves in major alterations of all the sub-concepts to which it acts as a category, just as we could and did introduce changes into categories which seemed a priori to many generations, such as teleology in biology or causality in physics.

But because some characteristics, though highly pervasive and psychologically obsessive for many generations, can, as a result of the impact of some intellectual genius capable of dissociating ideas, be abolished or altered, it does not follow that all pervasive characteristics can be so treated. And I should like to suggest that the stability of the quasi-Euclidian relations of the normal sense-field – in which if dot A is to the right of dot B, and dot C is to the right of dot B, in a moderately straight line along a visual plane, then dot A is to the right of dot C in that line – is not so significantly alterable; and similarly with the transitive relation of 'before' and 'after'. That such relations exist is, if you like, a brute fact, almost an empirical truth, but there is something gravely misleading in calling propositions which describe such pervasive relations as empirical, because we use 'empirical' to describe propositions which are not necessarily true, which are in principle corrigible, which experience can upset. Nor is it right to call such propositions a priori if by a priori we mean truths which are logically true, or deducible by some logical process from logical truths, or whose truth is incapable of being altered by anything whatever that may happen. Such propositions are empirical in the sense that they depend on the actual permanent characteristics of our world, characteristics upon which all methods of teaching the use of terms depend – *de facto* structures which 'ostensive' or 'semantical' definitions or rules in fact record. To assert something which contradicts propositions which reflect this structure is not so much to sin against syntactical rules, but to appear to utter absurdities, to suggest 'impossible' states of affairs. Unless our calculi are so interpreted as to fit in with these pervasive characteristics, they will not merely lead to falsehoods – which is all that would happen if they were interpreted not to fit in with ordinary empirical knowledge – but be absurd and meaningless. To suggest that physical laws might alter – that flower-pots might, every five years, turn into telephones and vice versa – or that the

concept of material object might cease to have application – that we should all be turned into sentient gaseous wholes – is thinkable. But this is relatively tame. To try to suggest that a world might exist in which one could be in two separate places at once, or share a pain with some other person, or travel in time, tampers with the very roots of our normal experience – is inconceivable in the sense in which conceiving itself obeys these very pervasive laws; and what applies to time, space and individuality may apply to the rules of the empirical notion of number – not to mathematics proper, but to common-sense counting – whereby two apples added to two apples cannot make five; and indeed to the celebrated laws of thought themselves, which reflect nothing but the most pervasive characteristics of our universe – *de facto* characteristics, of which it may be said that they are 'presupposed in our experience', that is, our verbal structures, even if it is very misleading to say, as Kant did, that they are a priori and differ in logical kind, and not degree, from the logically a posteriori.

The difference *is* one of degree; but sometimes of so vast a degree that it becomes misleading to speak of it as a mere difference of degree; and that is why 'empirical' is not a proper term to use, although both 'a priori' and 'analytic' are equally if not more mistaken. And the apparent 'a-priori-ness' of, for example, the colour propositions about yellow and purple and brown used above derives from the fact that they describe some of these pervasive characteristics – more pervasive than, for instance, causality or substance, which Hume or Berkeley were able to undermine, although in their time they seemed very firmly ingrained. I see no reason for thinking that 'synthetic a priori propositions', that is, propositions which are made true neither by logical syntax, nor by facts and observation, might not refer to these kinds of uniformities, and be true when and only when these uniformities are genuinely prevalent so universally and permanently that the attempt to think them away psychologically occasions – as Kant more or less said – acute mental discomfort, and is frustrated by our inability not merely to imagine but to conceive or understand what is suggested in any but a formal and deductive sense – and finally leads to the impression that what is being said is nonsensical without being analytically false.

But there is perhaps no reason why there should not one day be an intellect sufficiently powerful, or changes in the universe sufficiently radical, to make these now pervasive categories, on

which all our ultimate semantical rules are based, seem as impermanent as causality or the metaphysical notion of substance seem to empiricists today.

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