

The notion of a *pragmatic decision* plays a central role in much twentieth-century epistemology. In this paper I will explore the role this concept plays in the work of C. I. Lewis, Carnap, Quine, and Rorty. Lewis, Quine, and Rorty are self-described pragmatists and although Carnap is not usually described as a pragmatist, Quine treats him as a fellow traveler when he compares his own position to that of Lewis and Carnap (1961: 46). We will see that while pragmatic decisions play a central role in the epistemologies of Lewis, Carnap, and Quine, they give no systematic analysis of this concept and make no attempt to develop a normative account of pragmatic decisions. They do contrast beliefs based on pragmatic decisions with those that are forced on us by evidence and logic, and they offer some hints about the basis for pragmatic decisions, but that is as far as they go. Yet, I will argue, they are committed to the view that pragmatic decisions are epistemologically prior to the collection of evidence and the application of logic. As a result, conclusions derived from logic and evidence are no better founded than the pragmatic decisions on which they are based. Without a normative theory of pragmatic decisions, we end up in Rortian relativism. In this respect Rorty is the proper heir of his pragmatic predecessors, and the proper response to Rorty will depend on whether there is in fact more to be said about the cognitive basis of pragmatic decisions. I will not pursue this matter in the present paper, my present aim it to underline the need for serious epistemological work on the grounds for pragmatic decisions. Obviously, any study of the pragmatic tradition can be pushed back well before Lewis, but Lewis, Carnap, and Quine form a natural grouping, and this starting point will help keep the discussion to a reasonable length.

1. C. I. Lewis

Lewis' epistemology is a major variation on Kantian themes. Empirical knowledge, Lewis holds, involves two elements, one sensory and one conceptual, that are seamlessly united in experience. When, for example, I recognize an object as a table, I experience a sensory presentation that has been subsumed under the concept of a table. Each element plays a distinct and crucial role in empirical knowledge. As in Kant, we do not discover the presence of these elements by introspection, but rather by philosophical analysis of experience. (See Lewis 1956: 25-6, 53-5, 276. This book was originally published in 1929 and will be cited henceforth as *MWO*.) I will begin my discussion with the sensory element, but concepts and the interaction between concepts and sensations will soon appear.

Lewis contends that the sensory element is a momentary, subjective presentation that is the subject of any interpretations we attach to it. Our awareness of a presentation is infallible because no evidence could possibly challenge its occurrence; only interpreted presentations are subject to reconsideration.¹ In *MWO* Lewis is ambivalent about whether we can describe a presentation just as it appears, without making commitments that are testable by future experience. Sometimes he asserts that presentations are ineffable (e.g., *MWO* 52-3, 124), but there are also passages in which he says that we can describe them by expressions such as "it looks brown" (*MWO* 124). These descriptions use public-object language but invoke "looks" language to cancel the normal implications that make such statements testable. In other words, we must master public-object language before we can attempt descriptions of subjective presentations. Sensory presentations thus play no role in determining the meanings of public-object

¹This once-familiar theme is currently out of fashion and will not play a major role in this paper. I beg the reader's indulgence until we see where Lewis leads us.

terms. There is, for Lewis, nothing like a sense-datum language and no way that the meanings of terms in a language can be founded on a basic language that refers directly to sensory presentations.²

Presentations, for Lewis, are not undifferentiated sensory blobs. We subsume a presentation under a particular concept because the presentation has features we recognize as similar to features of other presentations we remember (*MWO* 58-60, 121-2, 131). Alternative interpretations are always possible, but the features of a presentation limit the range of these interpretations: “I can apprehend this thing as a pen or rubber or a cylinder, but I cannot, by taking thought, discover it as paper or soft or cubical” (*MWO* 52). If there were no such limitations I would be able to transform the pen in front of me into a glass of cognac, and the American Midwestern scene that surrounds me into the heart of Paris, just by an act of interpretation. All interpretations of a presentation would then be equally useful and equally irrefutable since future presentations would also be subject to any interpretation that we chose. Lewis takes it as clear that this is not what we experience. We are active beings who must find our way around an often recalcitrant world by interpreting presentations; these presentations guide us by evoking interpretations while limiting the range of possible interpretations. It is important to be clear on the difference between the ability to impose a variety of different interpretations on a presentation—perhaps even an infinite variety—and the ability to impose any interpretation whatsoever. There are, after all, disjoint infinite sets: If you must pick an even integer you have an infinite set of options, but cannot choose any integer whatsoever.

Turning now to concepts, in contemporary terminology Lewis holds a *conceptual role* theory of concepts. Concepts occur only as members of a system of interrelated concepts, and the content of each concept is wholly determined by its relations to other concepts. All such relations are expressed in analytic propositions. The task of conceptual analysis is to map out these relations—not to dissect complex concepts into their simpler parts (*MWO* 80-83, 103-9). There are, for Lewis, no intrinsically fundamental concepts; all concepts are subject to analysis. It is an immediate consequence of this view that whenever we subsume an item under a concept we make a claim that has unlimited consequences for further experience. These consequences provide the basis for both the usefulness of concepts in empirical knowledge and the limitations of such knowledge. It is conceptualization that takes us from subjective presentations to objective, intersubjective knowledge of the world. Although each presentation is private, once I apply a concept I make a transition from subjective experience to an objective claim subject to challenge by further experience (*MWO* 140). As a result, it always remains possible that further experience will lead me to conclude that a conceptualization was mistaken (*MWO* 279-81).

Lewis notes that different individuals may experience qualitatively different presentations in a given situation but still apply the same concept and respond in the same way (*MWO* 111). It does not matter if your subjective experience on seeing a stop light is exactly the same as mine as long as we identify the same items as stop lights and act towards them in accordance with the same rules. Lewis also notes that which concept I apply to a given presentation is affected by context. In some contexts I classify an item as round because it looks round; in other contexts I classify it as round because it looks elliptical. In a similar way, a particular presentation may lead me to characterize an object as green in sunlight or as blue in artificial light (*MWO* 131). It these identifications that we act on, communicate, and sometimes reevaluate in the light of further experience.

²In a later book Lewis reworks this discussion in terms of a distinction between the *objective* and *expressive* uses of language (1946: 179). The former is the normal mode: We describe objects, processes, or properties in language that has implications for future experience. We shift to the expressive use of language when we use locutions such as “looks like ...” to cancel these implications, thereby protecting our description from possible refutation.

Lewis holds that when expectations generated by a conceptualization fail, the most natural response is to conclude that we misidentified the presentation. For example, the concept currently associated with term “whale” includes the requirement that whales are mammals, although at an earlier stage in history this term was associated with a concept that classified whales as fish. Suppose I am living in the earlier period and classify a large sea creature as a whale but on further examination find that it lacks gills and is nursing a smaller creature of the same general appearance. Given that these features are logically incompatible with fish, the proposition “This creature is a whale” has been empirically refuted and should be withdrawn. I might not have an alternative concept readily available for categorizing this animal, but let that pass for the moment. Suppose, however, that whenever anyone identifies a creature as a whale, further exploration reveals mammalian characteristics and thus leads to a refuted identification. We may begin to suspect that the concept of a whale lacks instances and that it would be useful to introduce a new concept for categorizing these creatures. For Lewis there is no meaningful sense in which we have discovered that the proposition “All whales are fish” is false; since this proposition is analytic, no experience is relevant to assessing its truth. We may decide to drop this proposition from our active repertoire—which amounts to dropping the concept currently associated with “whale” from that repertoire. The proposition “All whales are fish” is still a conceptual truth, but no longer one that we make use of in our thinking about the world. We may also decide to introduce a new concept and associate it with the word “whale.” Given this new concept, “All whales are mammals” now expresses a conceptual truth. The two propositions do not conflict because “whale” is associated with a different concept in each case. If Lewis were writing after 1958 he would be viewed as holding that all observation is theory-dependent, along with many other views that came into focus at about that time. For example, Lewis would have no trouble assimilating Hanson’s (1958) claim that Brahe and Kepler do not see the same thing when looking at the sun. For Lewis this would mean that while the two astronomers could agree that they apply the word “sun” to the same object, they associate different concepts with that word, and thus make different inferences.

Lewis holds that the concepts we currently wield are a product of human social history (*MWO* 6, 21-2, 110-11; see also 1970c: 250-51). Concepts are tools that guide our actions in the world; they are adopted by a process of trial and error as we attempt to find our way around that world. We generate concepts as we need them and abandon them when we find that they do not serve our ends. Sometimes a concept and the associated language are dropped from our active repertoire, as occurred with phlogiston. Sometimes new situations lead us to create new concepts and language, such as carburetor or isotope. Sometimes when we drop a concept we adopt a different, but similar concept. When we follow this last route we often continue to use the word we associated with the older concept—as occurred in the “whale” case. To avoid confusion I will henceforth use “ W_f ” for the whale-concept that includes being a fish among its necessary conditions, and “ W_m ” for the concept that includes being a mammal.

The decision to drop a concept from our repertoire is one paradigm case, for Lewis, of a *pragmatic decision*. We make this decision because we find that a current concept does not help us achieve our goal of correct prediction. However, since no proposition that expresses part of the content of a concept has been refuted, we are not *required*, in any epistemically significant sense, to drop this concept. We may retain W_f as long as we choose, no matter what practical difficulties this generates, without violating any epistemic principle (e.g., *MWO* 252, 264; see also 1970b: 238). On the other hand, logic and the evidence do require that we withdraw our identification of an item as W_f if we conclude that it has mammalian characteristics. Thus we have our first example of the contrast between an outcome that is epistemically forced and one that results from a pragmatic decision.³

³Lewis suggests that conceptual truths are denizens of an eternal realm of meaning that is unaffected by human decisions. We only get to decide which of these eternal truths to include in our repertoire (e.g.,

Given the aim of dealing effectively with the world, we prefer concepts that yield correct predictions; the pursuit of such concepts leads to episodes of conceptual change.⁴ Lewis emphasizes that conceptual change is a common occurrence in human history—especially in the history of science (*MWO* 228, 233-35, 307; 1968: 661-63). As our experience grows we sometimes find that old modes of classification are inaccurate or superficial; we also encounter situations in which we find it useful to make classifications that were never made before, and to begin thinking of items not previously imagined.

Talk of conceptual change raises the vexed question of the relation between conceptual change and change of belief; this distinction is central to Lewis' epistemology. Situations in which we withdraw our identification of an item provide one clear case in which he holds that we change beliefs while our concepts remain constant. Lewis also considers a second class of testable empirical claims: universal generalizations that are couched in existing concepts and subject to empirical evaluation. Lewis' treatment of such generalizations will lead us to a second class of pragmatic decisions.

Comparing universal statements that express empirical claims with universal statements that express *a priori* conceptual truths, Lewis writes: "The dividing line between the *a priori* and the *a posteriori* is that between principles and definitive concepts which *can* be maintained in the face of all experience and those genuinely empirical generalizations which *might* be proven flatly false" (1970b: 238-9). We introduce empirical generalizations in response to correlations we discover while working within a system of concepts. But, Lewis holds, when we become sufficiently confident of a generalization we may change its status to that of a conceptual truth (*MWO* 262-4, 375, 393-401). For example, as physics developed researchers introduced the concept *electrical resistance* and it became useful to measure and tabulate the resistance of various materials. Over time, having electrical resistance R changed in status from being one of the properties of material M to being one of the criteria a sample must meet to be identified as M. The effect of this transition was to associate the word "M" with a new concept and the sentence "M has electrical resistance R" with a new proposition. Instead of expressing a proposition subject to empirical test, the new sentence expresses an analytic proposition encapsulating a defining characteristic of M; this new proposition is not subject to empirical test. Lewis holds that this kind of conceptual change is part of the normal process of seeking the simplest and most efficient way of thinking about nature and acting in the relevant domain.

This change took place because the members of the relevant community *decided* that taking resistance R as a necessary condition for M provides a more effective way of dealing with this material than does continuing to view the relation between M and R as a correlation subject to further test. There was no point at which considerations of evidence and logic *required* such a change. Thus we have a second paradigm case of a pragmatic decision: change in the status of a proposition from an empirical generalization to a conceptual truth. As long as we treated "All M are R" as expressing an empirical proposition it was subject to empirical refutation. If we encountered a sample that met established criteria for M but did not have resistance R, the proposition would be flatly refuted and we are epistemically required to reject it. Once we changed the concept associated with "M" the empirical situation changed. Given the new concept, a sample that does not have resistance R must not be

MWO 369). For present purposes we need not follow Lewis down this Platonic path.

⁴I use "conceptual change" for brevity; it should not be taken to imply that a concept may be altered. Lewis holds that conceptual change always consists of adding concepts to our repertoire or dropping concepts from that repertoire.

classified as M. But there is no comparable epistemic constraint on the decision whether to treat “All M are R” as expressing an empirical truth or a (different) conceptual truth. That is a pragmatic choice.⁵

We have now looked at the two kinds of empirical propositions that Lewis recognizes and encountered the distinction between pragmatic decisions and forced outcomes in each case. In the non-pragmatic cases evidence and logic dictate an outcome; all other cases depend on pragmatic decisions. Note, however, that pragmatic choices are, for Lewis, epistemically more fundamental than forced outcomes. To see why consider that the pragmatic decisions we have encountered thus far all involve decisions about what concepts we will use; given different concepts we respond to experience differently. Thus the pragmatic decision to include a concept in our repertoire can have wide-ranging consequences for both reflection and action. Returning to a previous example, while “All W_f are fish” and “All W_m are mammals” are mutually consistent, it is a matter of some importance which concept we adopt for identifying large aquatic creatures. The statement “This is a W_f ” yields predictions about what we will find as we continue to examine this critter that are inconsistent with those implied by “This is a W_m .” The situation is completely parallel, Lewis holds, to the choice of a physical geometry (*MWO* 297-98). Taken as abstract axiom systems, Euclidean geometry and hyperbolic geometry are simply different, not incompatible. But when we apply these geometries to physical triangles we arrive at different expectations about what we will find on further exploration, such as whether the sum of the angles will vary with the size of the triangle. Lewis also holds that the choice between Ptolemaic and Copernican astronomy is a pragmatic matter (1970c: 256). Moreover, for Lewis there is no such thing as empirical evidence until after we have adopted a system of concepts for identifying presentations. Given appropriate differences in concepts, two individuals can find evidence for incompatible beliefs in qualitatively identical presentations. Thus, while no experience can force us to adopt a conceptual framework, the framework we choose determines the set of forced outcomes that we can face.

The role of pragmatic decisions in Lewis’ epistemology is even wider and more fundamental than the discussion thus far indicates. Consider two other matters that Lewis relegates to the pragmatic realm. First, Lewis holds that there are alternative logics and that each of these is wholly adequate when evaluated on its own grounds. All attempts to evaluate a logic are circular since we cannot carry out such evaluations until after we have adopted a logic. As a result, nothing can force us to adopt a specific logic; adopting a logic requires a pragmatic decision (*MWO* 208-210, 245-49; 1970b: 232-33). Second, the criteria we use for epistemic evaluations are also the result of pragmatic decisions. As in the case of logic, any attempt to justify epistemic criteria must be circular since we must choose these criteria before we can carry out epistemic evaluations (1970d: 337-38). However, since our concepts, logic, and epistemic criteria are adopted as a result of pragmatic decisions, our reasons for *believing* and *acting on* any proposition will be no better founded than our grounds for these pragmatic decisions.

Given the pervasive and fundamental role of pragmatic decisions in determining what we believe and how we act, an examination of their basis should be a major topic in Lewis’ epistemology. But Lewis lets us down. He does drop a number of hints. He insists that pragmatic decisions are not arbitrary (e.g., *MWO* 237-39). In particular, our decisions on which concepts to adopt are made by considering which will be more effective in promoting successful action in the world. As we have seen, the decision to change concepts is typically made in response to experience. Lewis suggests that assessments of which conceptual systems are more workable constitute “a sort of second-order type of induction” (1968: 663). He also tells us that our concepts are structured hierarchically: Concepts of particular species or natural kinds, such as whale or iron, are low in the hierarchy; the concepts *species* and *natural kind* are higher up; the concepts of logic are at the top. “The higher up a concept stands in

⁵For Lewis this is a *social choice*, although he did not pursue this theme; it was generally not developed in epistemology until quite recently.

our pyramid, the more reluctant we are to disturb it, because the more radical and far-reaching the results will be if we abandon the application of it in some particular fashion” (*MWO* 306). Still, we can abandon concepts at any level and the decision whether to do so is pragmatic. Even the preference for minimizing disturbance is, it would seem, accepted on the basis of a pragmatic decision. Yet, in spite of their fundamental role, Lewis provides no systematic account of the basis for pragmatic decisions. In particular, he provides no account of the conceptual framework for making such decisions and of our grounds for adopting that framework. We will find that this gap is not unique to Lewis.

2. Carnap

The distinction between forced outcomes and pragmatic decisions plays a central role in Carnap's philosophy, particularly in his influential paper “Empiricism, Semantics, and Ontology” (1956a, henceforth *ESO*). Carnap's main concern in this paper is with questions about the existence of abstract entities such as numbers and propositions. He proposes to deal with the issue by distinguishing between *internal* and *external* questions: Internal questions occur within a language, such as the language of material objects or numbers; external questions concern the choice of a language. Consider, for example, whether numbers exist. In the language of numbers, “five is a number” is an analytic proposition, and “numbers exist” is a logical consequence of this proposition (*ESO* 209). Suppose, however, someone asks if numbers exist, period. The question is not whether numbers are countenanced by the rules of one language or another, but whether there is such an entity. This is an external question and, Carnap maintains, a pseudo-question. Questions of existence can be considered only within a language; there are no genuine existence questions outside of a specific language. Carnap admits other internal questions besides those concerning existence. For example, within the language of propositions it is clear that “Proposition are mental events” is false since no reference to mental events occurs in that language (*ESO* 210).

But some external questions are not pseudo-questions. In particular, whether we should adopt a specific language for a particular purpose is an important external question—although not a question we can answer on the basis of determinate rules or principles since such rules and principles are provided only by a language. The question of which language we should choose is, Carnap maintains, a *pragmatic issue*. Like Lewis, Carnap emphasizes that answers to pragmatic questions are not forced, and adds that pragmatic questions are non-theoretical and non-cognitive (*ESO* 208, 210, 212). Carnap uses “theoretical” and “cognitive” as synonyms, where the characteristic feature of questions falling under these rubrics is that their answers are dictated either by linguistic rules alone or by linguistic rules plus evidence. Such questions are possible only after we have made the pragmatic decision to adopt a language.

Carnap maintains, as did Lewis, that pragmatic decisions are not arbitrary; we make them on the basis of reasons, which include considerations mediated by logic and evidence, although these considerations are not sufficient to dictate a choice. Thus Carnap holds that while the choice of a language is “not of a cognitive nature, [it] will nevertheless usually be influenced by theoretical knowledge, just like any other deliberate decision concerning the acceptance of linguistic or other rules” (*ESO* 208, see also 212). He also notes that whether a particular linguistic form will be expedient and fruitful, given the nature of our experience, “is a theoretical question of a factual and empirical nature” (*ESO* 213). But what is the nature of this “influence” and in what language do we make these assessments? Perhaps such questions can be decided in the language of economics or physics or some cluster of sciences, but such suggestions only muddy the issue of how we are to choose a language. In particular, is there any *reason* why should we choose a *scientific* language for assessing pragmatic significance?

These questions becomes especially pressing when we consider Carnap's “principle of tolerance” which seems to allow people to choose whatever languages they wish. In *The Logical Syntax of Language* (1959, henceforth *LSL*) Carnap suggests that attempts to construct alternative logics have been

rather limited, and proposes that this results from the mistaken view that “any such deviations must be justified—that the new language-form must be proved to be ‘correct’, and to constitute a faithful rendering of ‘the true logic’” (*LSL xiv*). Rather, Carnap says, “the view will be maintained that we have in every respect complete liberty with regard to the forms of language; that both the forms of construction for sentences and the rules of transformation . . . may be chosen quite arbitrarily” (*LSL xv*). Carnap thus extends to logic the sort of tolerance already operating in mathematics (*LSL xv*, 51-52):

In logic, there are no morals. Everyone is at liberty to build up his own logic, i.e. his own form of language, as he wishes. All that is required of him is that, if he wishes to discuss it, he must state his methods clearly, and give syntactical rules instead of philosophical arguments. (*LSL 52*)

Other remarks indicate that the scope of tolerance goes well beyond the choice of logic and mathematics. A language, for Carnap, is specified by a set of formation and transformation rules, where the latter may include both L-rules (rules of logic) and extra-logical P-rules (*LSL 316*). P-rules may be either universal sentences, such as Maxwell’s equations (*LSL 319*), or concrete sentences. “In the most extreme case we may even so extend the transformation rules of S that every sentence which is momentarily acknowledged (whether by a particular individual or by science in general) is valid in S” (*LSL 180*). Further, “It is a matter of convention whether we formulate only L-rules or include P-rules as well . . .” (*LSL 186*). In other words, in *LSL* Carnap “views P-rules as much as L-rules as being definitive of a language. From the syntactic viewpoint, a change in P-rules is as much a change of language as a change in L-rules” (Ricketts 1994: 189). These remarks, taken in conjunction with the discussion in *ESO*, suggest wide latitude for tolerance. Moreover, the cases in which tolerance is appropriate are just those that require pragmatic decisions.

One more passage will underline Carnap’s view of pragmatic decisions:

Suppose a sentence S is given, some test observations for it have been made, and S is confirmed by them in a certain degree. Then it is a matter of *practical decision* whether we will consider that degree as high enough for our acceptance of S. . . . Although our decision is based upon observations made so far, nevertheless it is *not uniquely determined* by them. There is *no general rule* to determine our decision. Thus the acceptance and the rejection of a (synthetic) sentence always contains a *conventional component*. (*LSL 426*, the final italics are Carnap’s the rest are mine.)

Carnap then emphasizes that there is only a conventional *component* in these decisions; in many cases the objective evidence is so overwhelming “that the conventional component practically vanishes” (*LSL 426*). In the limit, we have outcomes that are uniquely determined by evidence and general rules. Yet the epistemic status of even uniquely determined outcomes will depend on the epistemic status of the general rules. Yet we do not have a body of general rules until after we have adopted a language, so the acceptance of general rules—including the choice of a logic—is dependent on pragmatic decisions.

In practice, Carnap’s exercise of tolerance is much more limited than many of his remarks suggest. Part IV of *LSL* is devoted to constructing a general theory of syntax that will apply to any language whatsoever, so Carnap does seem to think that there are non-conventional limits on our choice of a language. In the “Foreword” to *LSL* Carnap emphasizes that accepting the principle of tolerance should lead to the construction of a universal metalanguage: “From this point of view, the task of the construction of a general syntax—in other words, of the definition of those syntactical concepts which are applicable to languages of any form whatsoever—is a very important one” (*LSL xv*). Thus Friedman argues that:

although the notion of truth *simpliciter* has indeed been relativized, the resulting notion of true-in-a-given-framework is “absolute.” For this latter notion can itself be precisely and rigorously characterized within the *framework-neutral* metadiscipline of logical syntax. (1988: 93)

And Coffa argues that much of Carnap's practice makes sense only if he is assuming that our choice of a metalanguage is not a pragmatic matter (1991: 321-22). Still, Carnap's exact intentions are a matter of some dispute among recent commentators. Devidi and Solomon (1994, 1995), for example, challenge the view that Carnap sought a universal metalanguage, although they agree that tolerance does not allow us to choose any form of language whatsoever. Yet it is far from clear what basis there is for such restrictions in Carnap's philosophy. If the restrictions are internal to a language, then it is appropriate to ask why we should adopt that language. If the reasons are pragmatic, then an account of these restrictions requires an account of the grounds for pragmatic decisions. By the same token, why should we prefer syntactic rules to philosophical arguments? Richardson emphasizes that Carnap's insistence on precise syntactic rules does not open the gate to metaphysics (1996: 309-332). But *why* should we eschew metaphysics? There may be reasons for avoiding metaphysics, but *reasons are in order*, and Carnap owes us an account of the nature of such reasons. In the absence of an account there is a serious gap in his epistemology and an opening to those who would conclude that no such reasons are possible. We can get some further insight into Carnap's position by continuing our examination of his philosophical practice.

Carnap takes it for granted that internal questions come in only two varieties, empirical and logical, and that appropriate answers to these questions must be factual or analytic, respectively (*ESO* 214). Here Carnap is discussing possible languages in a metalanguage that has already ruled out synthetic *a priori* propositions, along with other kinds of propositions that some philosopher (such as Kripke) might put forward. Carnap also takes it as given that this metalanguage includes a sharp analytic/synthetic distinction. He engaged in a long dispute with Hempel on the viability of this distinction, a dispute that was largely independent of Quine's critique.⁶ In *LSL* Carnap formulates one of Quine's central arguments against the analytic/synthetic distinction without rejecting that distinction. Discussing the physical part of a language, Carnap writes:

If a sentence which is an L-consequence of certain P-primitive sentences contradicts a sentence which has been stated as a protocol-sentence, then some change must be made in the system. For instance, the P-rules can be altered in such a way that those particular primitive sentences are no longer valid; or the protocol-sentence can be taken as being non-valid; or again the L-rules which have been used in the deduction can also be changed. There are no established rules for the kind of change which must be made. (*LSL* 317)

And on the next page:

There is in the strict sense no refutation (falsification) of an hypothesis; for even when it proves to be L-incompatible with certain protocol-sentences, there always exists the possibility of maintaining the hypothesis and renouncing acknowledgment of the protocol-sentences. . . . Further, it is, in general, impossible to test even a single hypothetical sentence. In the case of a single sentence of this kind, there are in general no suitable L-consequences of the form of protocol-sentences; hence for the deduction of sentences having the form of protocol-sentences the remaining hypotheses must also be used. Thus *the test applies, at bottom, not to a single hypothesis but to the whole system of physics as a system of hypotheses* (Duhem, Poincaré).

⁶For the high-points of the debate, see *LSL* 431-54; Hempel 1965: 101-122 (which draws on two previous articles that appeared in 1950 and 1951); Carnap 1952: 65-73 and 1956b; Hempel 1963 especially 703-707; Carnap's reply in the same volume (1963b) at 958-966, which includes a new attempt at drawing the distinction; and Hempel 1970 especially 158-163.

No rule of the physical language is definitive; all rules are laid down with the reservation that they may be altered as soon as it is expedient to do so. This applies not only to the P-rules but also to the L-rules, including those of mathematics. In this respect, there are only differences in degree; certain rules are more difficult to renounce than others. (*LSL* 318)

Carnap adds that, assuming all protocol-sentences to be synthetic, it follows that a protocol sentence can never contradict an analytic sentence. “In spite of this, it may come about that, under the inducement of new protocol-sentences, we alter the language to such an extent that [a previously analytic sentence] is no longer analytic” (*LSL* 318-19). Yet Carnap does not view any of this as a challenge to the analytic/synthetic distinction. It seems that Carnap either does not consider adoption of the analytic/synthetic distinction to be a matter that falls under the principle of tolerance, or that he has made a pragmatic decision to stick with this distinction come what may. But the grounds for the first alternative are far from clear and if we read Carnap as adopting the second alternative, we must ask whether others are free to make a contrary decision. If not then, again, reasons are in order.

Let us pursue this point in another direction. There is no doubt that adopting a metalanguage that allows only empirical and analytic propositions promotes Carnap’s goal of eliminating metaphysical discourse. But why should we adopt that goal—and in what language should we discuss this question? In his “Intellectual Autobiography” Carnap reports the following “practical attitude” among members of the Vienna Circle:

We regarded terms of the traditional philosophical language with suspicion or at least with caution and accepted them only when they passed a careful examination; in contrast, we regarded terms of mathematics and physics as innocent and permitted their use in our discussions unless cogent reasons had shown them to be untenable. (1963a: 65-6)

But aren’t proponents of traditional philosophy free to adopt a different practical attitude? If not, Carnap owes us an account of why they cannot adopt this option. Moreover, any such account should either conform to the views on the nature of reasons that he has put forward, or lead to a modification of those views. The same point applies to Carnap’s adoption of empiricism. Ricketts maintains that, for Carnap:

Empiricism is not a theoretical matter; there is no right or wrong to it, for in logic there are no morals. Carnap’s advocacy is backed only by his endorsement of the evidential standards, the language use, that he believes typify science. It is in this sense, then, that Carnap’s application of the criticisms “pseudo-problems” and “nonsense” is ultimately ad hominem. (1994: 195)

Let me push the point with an example of a type that Carnap would presumably reject. Many people in the world have a deep belief in the existence of witchcraft. Suppose I am deciding whether to live in accordance with rules of science or the rules of a language that allows for witchcraft. If we view this as a choice between languages, as does Winch (1958), it is not a choice that could be appropriately made in either language.⁷ Any assessment of one of these languages from the perspective of the other would involve biased criteria and lead to inappropriate critiques. Arguments on behalf of the autonomy of alternative languages have become all too familiar in recent philosophy, but they are a coherent response to the view that the choice of languages is not a cognitive matter—that cognitive questions arise only after a language has been chosen. I am not arguing that we should accept this response; I am arguing that Carnap does not provide a nondogmatic basis for rejecting it. The decision falls in the pragmatic realm and, like Lewis, Carnap provides a variety of hints and suggestions about the basis for

⁷Although Winch builds his position on an interpretation of Wittgenstein, Roth (1987: 229) remarks that Winch seems to be guided by Carnap’s *ESO* more than by Wittgenstein.

pragmatic decisions, but does not attempt a systematic account. Rather, pragmatic decisions continue to be treated as if they lack fundamental epistemic significance. Friedman, for example, describes the choice of a language as “merely pragmatic” (1991: 516). Yet for Carnap (as for Lewis) forced outcomes, which provide the paradigm of genuinely cognitive claims, depend on prior pragmatic decisions and are no better founded than the outcomes of those decisions.

In fact, discussions of the pragmatic realm seem to be full of reasons. For example, in “Testability and Meaning” Carnap says that the empiricist principle should not be viewed as an assertion, but as “a proposal or requirement . . . we require that descriptive predicates and hence synthetic sentences are not to be admitted unless they have some connection with possible observations . . .” (1937: 33). He then offers a reason for accepting this view of the empiricist principle: “By such a formulation, it seems to me, greater clarity will be gained both for carrying on discussions between empiricists and anti-empiricists as well as for the reflections of empiricists.” Similarly, Creath, in an account of Carnap’s conventionalism, extends the pragmatic realm to principles of induction: “The traditional question of justifying induction simply drops away. One could choose to have no inductive rules whatever. But the pragmatic costs would be high: one could make no prediction and this would be followed by frequent bruises and quick starvation”(1992: 154). Yet if we recognize that these ills befall those who make no predictions, we have learned something about the world that should constrain our choice of languages. These results may be pragmatic, but they are not *merely* pragmatic. Surely the discovery that we fare better if we adopt a principle of induction—and the discovery that some principles of induction work better in this world than others—is a cognitively significant reason for adopting a principle. Thus a full account of epistemic evaluation should include an account of pragmatic decisions. But it is difficult to see how such an account can be developed within the framework of Carnap’s thesis that epistemic evaluation is possible only after we have made the non-cognitive decision to adopt a language.

3. Quine

Quine takes the discussion of pragmatic decisions to a new stage when he maintains that all decisions to accept or reject a thesis are pragmatic in exactly the sense we have been discussing. All my beliefs link together in a seamless web; any item in the web can be defended or rejected subject only to pragmatic constraints. There are no forced epistemic outcomes. Even decisions made within a Carnapian language have alternatives and are thus ultimately made on a pragmatic basis. At the end of “Two Dogmas of Empiricism” Quine describes himself as espousing “a more thorough pragmatism” than either Carnap or Lewis. “Carnap, Lewis, and others take a pragmatic stand on the question of choosing between language forms, scientific frameworks, but their pragmatism leaves off at the imagined boundary between the analytic and the synthetic” (1961: 46). Essentially, Quine’s web of belief is Lewis’ conceptual system without the analytic/synthetic distinction.⁸

Note especially that, for Quine, the concept of a forced outcome provides the criterion for what would be required to accept a belief on non-pragmatic grounds. An especially revealing remark occurs in a response to Gibson who (following Føllesdal) argues that Quine’s views on indeterminacy of translation follow from the combination of holism and verificationism (Gibson 1986: 139-54). Quine replies that holism is sufficient to generate indeterminacy because holism undermines verificationism (for which Quine acknowledges an attraction):

The statement of verificationism relevant to this purpose is that “evidence for the truth of a sentence is identical with the meaning of the sentence”; and I submit that if sentences in general had meanings, their meanings would be just that. It is only

⁸Lewis holds that all of our concepts link together into a single system. Carnap’s view that we use multiple distinct languages sets him apart from Lewis and Quine.

holism itself that tells us that in general they do not have them. (Quine 1986: 155-56) Although Quine's focus is on meaning, the passage implies that if holism were false—if some sentences had determinate verification conditions—there would be no need for pragmatic assessment of their truth-values given the appropriate evidence. In other words, Quine retains the basic contrast between forced outcomes and pragmatic decisions, but holds that the former concept is not instantiated.

As we should expect, Quine does not conclude that there are no standards for pragmatic evaluation. The goal of science, Quine maintains, is to facilitate the prediction of future experience, so we do not generally ignore our sensory promptings. Usually we adjust our beliefs when an expectation generated by our current web conflicts with experience—although he maintains that, as a last resort, we can protect a favored proposition by declaring that the experimenter is the victim of an hallucination (1961: 43). These adjustments are guided by considerations of simplicity, economy, and conservatism. Some beliefs have a more central place in the web than others—in the sense that revising them will generate more extensive changes than would be generated by revising less central beliefs. We are more reluctant to revise central beliefs than beliefs closer to the periphery. Still, these guidelines do not dictate specific changes, and no belief is intrinsically immune to revision as we seek to accommodate a particular failed expectation.

However, if the web is all-inclusive, adopting these pragmatic values amounts to including certain beliefs in the web—such as the belief that, other things being equal, small changes are preferable to large changes. Presumably, these beliefs are also subject to challenge. Feyerabend, for example, might include a preference for the more exciting change in his web of beliefs. Quine might argue that this would be a poor choice, but this would require an *argument*—and this argument cannot consist of just pointing out the central role that conservatism plays in Quine's own web. Alternatively, Quine might argue that certain beliefs are, after all, not subject to challenge. But this would, again, require an argument—plus a modification of the view that the web is all-inclusive. The same holds for Quine's commitment to modern science: on Quinian grounds this commitment is a choice that Quine has made and—as far as Quine's account takes us—that others may reject. The issue arises even for the role Quine attributes to sensation as the key touchstone in deciding whether adjustments are in order, and to the very claim that adjustments to the web should be made on pragmatic grounds (rather than, say, religious or aesthetic grounds). If the web is all inclusive, each of these choices would be internal to a particular version of the web and need not be included in other versions.

We seem to be approaching a total relativism that Quine does not advocate. But the possibility of such relativism raises the question whether there is a perspective outside the web from which we are working when we maintain that empirical failures require adjustments to the web and that these adjustments should be made on pragmatic grounds. Such a perspective, if it exists, must include guidance for carrying out these pragmatic assessments. Quine came particularly close to addressing this issue when Gibson noted an inconsistency between two of Quine's claims (Gibson 1986: 153, n. 2). At issue is how to think about two theories that use fundamentally different concepts, but are empirically equivalent. In the first essay in *Theories and Things* Quine concludes that we must always speak from within a theory, so that we must consider a competing theory false (1981: 21-22); in the second essay he concludes that such theories are both true (29). In his reply to Gibson, Quine labels his two responses the *sectarian view* and the *ecumenical view*, respectively (1986: 156). Quine allows for the possibility that we might master both theories and recognize that they are equally warranted. Still, he opts for the sectarian view: “Having got the swing of the alien jargon without benefit of translation, we might even oscillate between the two for the sake of an enriched perspective on nature. But whichever system we are working in is the one for us to count at the time as true, there being no wider frame of reference” (1986: 157). This theme recurs in *Pursuit of Truth*:

The sectarian is no less capable than the ecumenist of appreciating the equal evidential claims of the two rival theories of the world. He can still be evenhanded

with the cachet of warrantedness, if not of truth. Moreover he is as free as the ecumenist to oscillate between the two theories for the sake of added perspective from which to triangulate on problems. In his sectarian way he does deem the one theory true and the alien terms of the other theory meaningless, but only so long as he is entertaining the one theory rather than the other. He can readily shift the shoe to the other foot. (1992: 100)

Note especially the distinction between warranted and assertibility and truth that Quine invokes in this passage. He emphasized this distinction in an earlier discussion of intuitionist philosophy of mathematics: “warranted assertibility is one thing, TRUTH another. . . . Dissociating truth from warrant, we become free to recognize that some truths are discoverable and some not; and we become free to call the rest of the statements false” (1987: 55-6).

Now Quine's remarks suggest that he is writing from a perspective that allows him to consider questions of warrant and truth along with the distinction between the ecumenical and sectarian options. Sectarrians working within a comprehensive theory have no reason to make the judgments that Quine does. They have no reason to allow that an alternative theory—which they consider meaningless—may be as well warranted as their own. Nor do they have any reason to think that they may gain insight by shifting into that alternative theory, or even to contemplate an ecumenical option which holds that either theory may be true. (I see no reason to allow that both may be true, although both may be false.) Consider three circumstances in which one could make the claims that Quine makes. One would occur if an individual's web were structured so as to allow these options. But such an individual would not be a sectarian as described by Quine. A second case would be to allow a perspective outside of one's comprehensive theory from which we engage in such considerations. This, presumably, would also be the perspective from which a Carnapian chooses between languages. A third possibility is to reject Quine's picture of a single comprehensive web, holding instead that we work in terms of multiple limited frameworks that we deploy for different purposes—including a framework that we use for epistemic reflection and evaluation. Carnap's picture of different languages for different purposes points in this direction. I have developed this approach in Brown 2007, building on ideas from Wilfrid Sellars, but it is not appropriate to explore it further in the present paper. The important point for the moment is that Quine does not discuss how we can contemplate such options or the perspective we are working from when we choose a comprehensive theory. Yet the subject is as pressing for Quine as it is for Carnap and Lewis. To be sure, Carnap and Lewis invoke pragmatic decisions only when we are choosing a framework, not for decisions made within a framework. Quine rejects this distinction, holding that acceptance or rejection requires a pragmatic decision in all cases. But it does not follow that decisions within a framework, and decisions to adopt a framework, are decisions of the same kind. Lumping them under the same rubric does not *ipso facto* eliminate all differences between them. Again we encounter the need for a discussion that our pragmatist does not provide.

4. Rorty

Many themes converge in Rorty's version of pragmatism and I will not attempt a comprehensive account. My current concern is limited to examining the role played by the thesis—taken over from Quine—that all beliefs are accepted only on pragmatic grounds. Rorty is especially concerned to argue that there is no difference in epistemological status between scientific results, on one side, and those in the humanities, along with moral and aesthetic evaluations, on the other. For example, he tells us that he “recognizes sociological, but not epistemological, differences between such disciplinary matrices as theoretical physics and literary criticism” (1991: 1). We must get clear on what would be required for there to be an epistemological difference.

In one essay Rorty offers three characterizations of pragmatism. According to the second: “there is no epistemological difference between truth about what ought to be and truth about what is, nor any

metaphysical difference between facts and values, nor any methodological difference between morality and science” (1982: 163). In the discussion that follows this passage Rorty tells us that, for pragmatists, the pattern of all inquiry—scientific as well as moral—is deliberation concerning the relative attractions of various concrete alternatives. The idea that in science or philosophy we can substitute “method” for deliberation between alternative results of speculation is just wishful thinking. . . . It is the myth that rationality consists in being restrained by rule. . . . One simply arrives at true beliefs by obeying mechanical procedures. (1982: 164).

In other words, the specific view Rorty is rejecting is that science proceeds according to rules that force conclusions on us without any need for scientists to deliberate about alternatives or exercise judgment in deciding which alternative to select.

According to Rorty's third characterization of pragmatism, “there are no constraints on inquiry save conversational ones” (1982: 165). It is clear from Rorty's discussion of this characterization that he allows for only two possibilities: Either there are constraints on research that force a unique outcome, or there is only conversation:

The pragmatist tells us that it is useless to hope that objects will constrain us to believe the truth about them, if only they are approached with an unclouded mental eye, or a rigorous method, or a perspicuous language. He wants to give up the notion that God, or evolution, or some other underwriter of our present world-picture, has programmed us as machines for accurate verbal picturing. . . . (1982: 165)

Rorty prefers this characterization

because it seems to me to focus on a fundamental choice which confronts the reflective mind: that between accepting the contingent character of starting-points, and attempting to evade this contingency. To accept the contingency of starting points is to accept our inheritance from, and our conversation with, our fellow-humans as our only source of guidance. To attempt to evade this contingency is to hope to become a properly-programmed machine. (1982: 166)

Rorty recognizes that there appear to be distinctions among beliefs. For example, “There *seems* to be a difference between the hard objects with which chemists deal and the soft ones with which literary critics deal” (1991: 83). But, Rorty concludes, “the difference is between the rules of one institution (chemistry) and those of another (literary criticism)” (1991: 84). His route to this conclusion consists of arguing that the apparent difference cannot be accounted for by holding that the “hard” objects force us to hold specific beliefs about them. Thus, for Rorty, the only way a scientific result could achieve an epistemic status different from results in the “softer” disciplines would be if scientific results were uniquely determined by inputs and rules. Lacking such unique determination we are in the realm of pragmatic decisions.

Rorty treats pragmatic decisions as completely outside the realm of epistemological study. This might seem an odd position for a self-described pragmatist. One would think, instead, that pragmatic decisions would be at the center of pragmatist epistemology. Yet we have seen other pragmatists leave this class in a largely unexamined state—even while recognizing its fundamental status. As a result, we are faced with two alternatives: either agree with Rorty that there is no more to be said and accept the consequences, or undertake the work of developing an epistemology of pragmatic decisions.

5. Conclusion

We have reached a peculiar historical juncture. A persistent line of argument in the pragmatic tradition has focused our attention on the fundamental role of pragmatic decisions in establishing our beliefs while leaving the epistemology of pragmatic decisions undeveloped, at best. We encountered hints in Lewis, Carnap, and Quine to the effect that there are grounds for making such decisions, but have

found no systematic account of these grounds. It is thus understandable that a philosopher working in this tradition might conclude that epistemology has nothing to say on the topic, and even that there are no epistemic norms for evaluating such decisions. Yet a rather different conclusion can be drawn from this history: that we should turn our attention to this neglected part of epistemology. I will not attempt to pursue that project here; it is a project for the future, not for an historical study. Indeed, there is a general issue here that transcends our discussion of the pragmatic tradition: the normatively appropriate grounds for accepting conclusions in the absence of forced options—that is, when defensible alternatives are available. Put differently, the problem is to understand the normative basis for epistemological *decisions*. Although the developments within pragmatism that I have been exploring bring this issue into focus, it is not a foregone conclusion that such an account is best developed in pragmatic terms. I submit that the proper pursuit of this task will take at least as much sustained effort as has already been devoted to the epistemology of forced outcomes, and that the results may well look quite different from the kinds of normative epistemology with which we have been familiar.⁹

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⁹I have attempted to take a step towards this development in Brown 1988.

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