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Logic and Judgments of Practice

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I

"The Logic of Judgments of Practice," first published in 1915 and then reprinted as the concluding essay of Dewey's 1916 *Essays in Experimental Logic*, has been recognized as an important statement of Dewey's developing naturalistic moral epistemology. It expands upon discussions to be found in earlier texts, such as "The Evolutionary Method as Applied to Morality" (1902), "The Logical Conditions of a Scientific Treatment of Morality" (1903), and the 1908 *Ethics* by Dewey and Tufts, and it clears the ground for later treatments of values and value judgments in *Reconstruction in Philosophy* (1920), *Human Nature and Conduct* (1922), and *The Quest for Certainty* (1929). Less widely recognized is its importance in the development of Dewey's pragmatic theory of logic. Commentators have found the paper instructive for its explication of Dewey's position on contemporary debates about valuation. But in 1916 Dewey was entering into those debates primarily in order to critique neorealist logic.

In a 1919 review of *Essays in Experimental Logic*, Bertrand Russell remarked that "in the sense in which I use the word, there is hardly any 'logic' in the book except the suggestion that judgments of practice yield a special form—a suggestion which belongs to logic in my sense, though I do not accept it as a valid one" (5–6). Had Russell thought through the implications of the essay to which he refers, he would have had to concede that most of the essays are devoted to logic. The question that "The Logic of Judgments of Practice" takes up is the adequacy of neorealist thinking about propositions, propositional forms, and propositional attitudes. Dewey not only criticizes neorealist notions about propositions as incomplete. He also argues that neorealists radically misunderstand what propositions and their constituents are. And since the positions taken in "The Logic of Judgments of Practice" are those to which the preceding essays point, *Essays in Experi-*

mental Logic is about what Russell himself would call the philosophy of logic.

This argument anticipates the view taken in *Logic: The Theory of Inquiry* (1938), namely, that “declarative propositions, whether of facts or of conceptions (principles and laws), are intermediary means or instruments (respectively material and procedural) of effecting that controlled transformation of subject-matter which is the end-in-view (and final goal) of all declarative affirmations and negations” (LW12:162). But the earlier essay is primarily critical rather than constructive. Dewey’s objective is to challenge the neorealists’ narrowing of logic from the study of inference to the study of implication. Because he believed that this faulty approach to logic was due largely to their commitment to realism and to a correspondence theory of truth, Dewey’s essay is devoted more to critically dismantling the neorealist view of propositions (practical and scientific) and their verification than to construction and elucidation of a pragmatic alternative. Nevertheless, the essay clearly suggests the lines along which Dewey’s construction would go. Thus it represents an important stage in the development of Dewey’s distinctive theories of inference, implication, and propositional form. To understand the essay, the issues it addresses, and why Dewey addressed them as he did, we must first understand the contemporary debates to which it was directed.

II

Before 1916, the chief objections to Dewey’s attempts to reconcile practical and scientific reasoning had come from idealists who argued that such attempts inevitably reduced principles and judgments of value and obligation to assertions about desires and the means and opportunities of their fulfillment. Consequently, in defense of his pragmatic approach to values, Dewey had sought to establish that an empirical approach was not inherently reductionist; that is, it need not reduce propositions about how we ought to act or what we ought to believe to propositions about how we do act or what we do believe. After all, Dewey argues, science is a practice, and like any other practice, it has its own rules, its own normative principles. It is in virtue of these that scientists determine how they ought to pursue their inquiries, what they may count as evidence, and what they are entitled to believe in specific situations. To say that practical reasoning operates in fundamentally the same way as scientific reasoning is not to say that moral philosophers can or should henceforth behave like descriptive anthropologists, cataloging human desires and the means of their sat-

isfaction without passing any evaluative judgments upon them. On the contrary, moral philosophers should evaluate competing theories and beliefs about which ways of life and of interpersonal conduct really are desirable given what we know about human nature and the world. What will have to be “reduced” are the claims that moral philosophers can make about the scope of their results. Moral philosophers must recognize that the norms of moral inquiry are neither categorical nor unrevisable. The norms of scientific inquiry are hypothetical imperatives binding only on those who join the scientific community and share in its practices. So from a pragmatic perspective, the norms of moral inquiry and practice are likewise binding only on persons who commit themselves to a particular community and to sharing in their practices. Reliance upon particular moral judgments or norms is warranted only so long as it demonstrably serves the ends of community life and the practices that sustain and promote those ends.

But by 1916, neorealism had eclipsed idealism as the chief rival of pragmatism. Unlike the idealists, the new realists did not object to pragmatism or pragmatic ethics primarily on the ground that it would reduce values to facts. They did just the reverse. They objected to pragmatism precisely because pragmatists like Dewey did not reduce claims about values to claims about facts. British and American members of the new realist movement shared Dewey’s belief that moral, aesthetic, and other practical propositions made genuine assertions about the world that were in principle confirmable by the sorts of observational methods used in physical science. But unlike Dewey, they took this to mean that moral and other value propositions had to be descriptive propositions whose truth was a matter of correspondence with a reality unmediated by subjective human attitudes or points of view. Thus to explain and defend his own position on the relation of practical and scientific reasoning in this new realist environment, Dewey had first to defend the legitimacy of his recognition of “practical judgment” as distinctive of evaluative reasoning and as central to the explication of practical inference. Only then could he go on to discuss the relation of practical propositions to the descriptive propositions used in scientific reasoning. This was the task of Dewey’s “Logic of Judgments of Practice.”

The positions to which Dewey responds in this essay are positions staked out in seminal works of some of the leading figures in the new realist movement. British realists G. E. Moore and Bertrand Russell and American neorealist R. B. Perry had each explicitly rejected the view that practical judgments involved a distinctive form of inference from nondescriptive propositions in their moral and epistemological works written before 1916, including Moore’s *Principia Ethica* (1903a) and *Ethics* (1912), Russell’s *Philosophical Essays* (1910) and his 1913 Lowell Lectures, published in 1914 as

Our Knowledge of the External World as a Field for Scientific Method in Philosophy, and Perry's article "The Definition of Value" (1914) and his contribution to *The New Realism* (1912).¹

For example, Russell writes in the first of his *Philosophical Essays*:

The study of Ethics is perhaps most commonly conceived as being concerned with the questions "What sort of actions ought men to perform?" and "What sort of actions ought men to avoid?" It is conceived, that is to say, as dealing with human conduct, and as deciding what is virtuous and what vicious among the kinds of conduct between which, in practice, people are called upon to choose. Owing to this view of the province of ethics, it is sometimes regarded as *the* practical study to which all others may be opposed as theoretical. . . . This view is . . . defective. It overlooks the fact that the object of ethics by its own account is to discover true propositions about virtuous and vicious conduct, and that these are just as much a part of truth as true propositions about oxygen or the multiplication table. (1910, 13)

Russell insists that philosophical ethics is "merely one among the sciences," a descriptive enterprise (1910, 14). Russell was following along lines Moore had laid out in *Principia Ethica*. Moore had insisted that "this question, how 'good' is to be defined, is the most fundamental question in all Ethics," because "it is impossible that, till the answer to this question be known, any one should know *what is the evidence* for any ethical judgment whatsoever" (1903a, 57). Moore insists, "The main object of Ethics, as a systematic science, is to give *correct* reasons for thinking that this or that is good" (1903a, 57–58). An essentially similar view underlies Moore's 1912 *Ethics*, in which he declares,

Ethical philosophers have, in fact, been largely concerned, not with laying down rules to the effect that certain ways of acting are generally or always right, and others generally or always wrong, nor yet with giving lists of things which are good and others which are evil, but with trying to answer more general and fundamental questions such as the following. What, after all, is it that we mean to say of an action when we say that it is right or ought to be done? And what is it that we mean to say of a state of things that it is good or bad? Can we discover any general characteristic, which belongs in common to absolutely *all* right actions, no matter how different they may be in other respects? and which does not belong to any actions except those which are right? And can we similarly discover any characteristic which belongs in common to all "good" things, and which does not belong to any thing except what is a good? (1–2)

Their thinking ran roughly like this: If ethics is a science, then it must produce and operate on the basis of true or false propositions. And if ethical propositions are actually true or false, then they must be true or false in virtue of their correspondence to some real quality, property, or relation in the world. Moreover, these real qualities, properties, or relations must be in some respect independent of the person making judgments about them. Through the publication of Russell's *Philosophical Essays*, Moore and Russell were still agreed that the qualities about which ethics made true or false assertions and to which true assertions corresponded must be nonnatural properties supervening upon natural things, acts, and persons.

This analysis of values and of assertions about values was not widely accepted even by fellow neorealists. Perry rejected the view that value is an essentially mysterious, objective, nonnatural property inexplicably apprehended by human percipients. Perry writes, "I conclude that interest is not an immediate cognition of value qualities in its object, but is a mode of the organism, enacted, sensed, or possibly felt, and qualifying the object through being a response to it. To like or dislike an object is to create that object's value. To be aware that one likes or dislikes an object is to cognize that object's value" (1914, 153). Then as now, most self-declared epistemological and metaphysical realists were subjectivists in ethics, aesthetics, and value theory generally, basing their claim to realist status on the fact that after all, subjective psychological states *are* real constituents of the world. Thus they could hold, as Perry did, that "it is essential to realism to maintain that a property is independent of its being judged," and hold at the same time that what practical propositions are about are just subjective attitudes. Neorealism's view of properties was to be opposed to idealism, not subjectivism. Propositions about the values of things were to be interpreted as propositions about interests that motivate human action or about the extent to which particular policies, acts, and dispositions tend to satisfy given interests. While these are features of human consciousness and conscious behavior, their existence is independent of their being "judged" to exist by their possessors. And being independently real in this sense, they can be the subject of true or false reports. They can even be the subject of disagreements. Perry argues that what propositions asserting value assignments are really about is just the extent to which things are liked or enjoyed. These are assertions which can correspond or fail to correspond to reality and about which there can be cognitive disagreement because "superiority of a value founded on true presuppositions is quantitative: it signifies more of interest fulfillment and not value of a different and more fundamental order" (1914, 161). 'X is more valuable than Y' can be true because it can be the case that X satisfies more interests than Y. Thus moral

or other value propositions are assertoric propositions and subject to the same sorts of truth conditions to which all other empirical assertions are subject.

This entails that the conclusions of “value judgments” must be expressible in ordinary propositional form, for they merely report states of affairs existing in the world. They do not express a peculiar form of immediate appreciative judgment or insight that would legitimate their being assigned a unique propositional form. On this, Perry is emphatic:

I find this whole aspect of values confused through a careless use of the term “judgment.” An act of liking, especially when it is reflective and mediated . . . is often spoken of as the “judgment of value.” And it is commonly believed that we have to do here with a unique sort of judgment. But this belief is due to a lack of analysis. . . . If I consciously like the *Mona Lisa* on the conscious supposition that it is the work of Leonardo I may be said to judge twice. First I judge that I like the picture. There is nothing peculiar about this judgment. It is like the judgment that I see stars. . . . Second, I judge that Leonardo painted the picture. There is nothing peculiar about this judgment. . . . It is in all formal respects like my judgment that heat causes water to boil. . . . In addition to these two judgments my complex state of mind contains my liking of the picture. This is the central fact, but it is no more a judgment than my entering the Louvre to see the picture. . . . Mix these three things thoroughly and you have your normative or appreciative consciousness. (1914, 161)

Perry’s analysis of the judgment that “the *Mona Lisa* is valuable because it was painted by Leonardo” clearly owes much to the theory of propositions and propositional attitudes that Russell was then developing. In this period, Russell held that propositions making meaningful assertions about particular things or events in the world were based upon “atomic propositions” that directly corresponded to sense data. These complex propositions were constructed from atomic propositions by means of the operators and quantifiers employed in mathematical logic (and, or, not, if-then, every, some). Thus any meaningful proposition about the value of the *Mona Lisa* must, on this account, be resolvable into simple propositions referring to the sensory properties associated with either the *Mona Lisa*, Leonardo, or attitudes experienced in response to them.

Russell recognized, of course, that propositions do not figure only in our assertions about the world. Propositions may themselves be the focus of attitudes: attitudes of hope, fear, uncertainty, or “belief.” But Russell denied that propositional attitudes, including “belief,” were themselves in-

ferences or so implicated in inference as to come within the province of logic. He considered propositional attitudes and the processes by which they arise to be matters for psychological rather than logical investigation.²

One effect of this move was to introduce a sharp divide between logic, as the theory of “inference” in Russell’s sense, and epistemology, as the science of knowledge generally—a division which did not always exist in nineteenth-century logical theory. When we engage in the inductive reasoning from which our conclusions about external things and events arise, we decide how much reliance to place on particular hypotheses given the evidence available to us. That is just to say we decide in what hypotheses *to believe* and to what extent we should do so. But since the processes by which we arrive at such conclusions are not forms of implication but incorporate claims about the rationality of belief, these processes are not strictly logical. They become the domain of a new field of study, lying somewhere between logic and psychology—namely, epistemology.

III

Dewey objected to the new distinction between logic on one hand and epistemology and its subdepartment, philosophy of science, on the other. And he objected to the conception of inference on which it was based. In the first section of “The Logic of Judgments of Practice,” Dewey offers an argument that loosely parallels Moore’s more famous “Refutation of Idealism” (1903b). Moore had argued that (Berkeleyan) idealism would be refuted if only one could find counterexamples in the form of mind-independent external objects, and then he offered his own hands as obvious counterexamples. Similarly Dewey refutes Russell’s (and Perry’s) view of propositions, that “the subject-matter of practical judgment *must* be reducible to the form *SP* or *mRn*” (Dewey 1915, MW8:14), by offering his own equally “obvious” counterexamples: “He had better consult a physician; it would not be advisable for you to invest in those bonds, the United States should either modify its Monroe Doctrine or else make more efficient military preparations; this is a good time to buy a house” (MW8:15). Russell had argued that “of the two parts of logic the first enumerates the different kinds and forms of propositions,” and yet (Dewey insists) he “does not even mention [practical judgments] as a possible kind” (MW8:15). Russell’s logic is thus flawed from the outset.

But counterexamples are only persuasive if we believe that they really are counterexamples. So Dewey follows up with an analysis of practical propositions and judgments to support his contention that they are not de-

clarative assertions and thus are neither complex nor atomic Russellian propositions.

First, the truth conditions of the assertions at which practical judgments arrive are different from those of the propositions that Russell acknowledges. Descriptive propositions are true if they correspond with how things actually are. But a practical judgment holds that some *X* *may* be, *ought* to be, or *must* necessarily be held better, worse, wiser, kinder, or more or less valuable than some *Y*. Practical judgment arrives at assertions about relations between beliefs, facts, desires currently existing and those that may exist or might have existed at some other time. They do not simply report how things really are in the world at any given time. Nor consequently is it sufficient to verify the proposition simply to observe how things turn out.

Second, practical propositions do not describe states of affairs. They propose courses of action (sometimes purely mental) in response to the exigencies of a specific situation or type of situation. Both the situation and the options it permits feature in practical judgment and its products. Thus their conclusion must be indexed to specific situations for their meaning as well as for their verification, in ways that descriptive assertions need not be.

Third, Dewey points out, "A right or wrong *descriptive* judgment (a judgment confined to the given, whether temporal, spatial, or subsistent) does not affect its subject-matter: it does not help or hinder its development, for by hypothesis it has no development" (MW8:17). Both the propositions themselves and the evidence of their truth (the state of affairs to which they correspond) are presumed to be separate and independent. But practical propositions lack this sort of independence, since it is through adopting and acting upon a given proposition as warranted that the means of verifying it come to pass.

Fourth, Dewey claims "a practical proposition is binary" (MW8:17), in that it always makes two sorts of claims. One is a claim about the rationality of believing some course of action more or less desirable in a given circumstance. The other is a claim that the course of action proposed is possible (albeit only in some merely possible world to which a given judgment may be indexed). Thus courses of action, goals, or ideals that are absolutely unrealizable cannot be meaningfully asserted in the form of a practical judgment. Such propositions are not simply unverifiable; they are empty.

Fifth, practical propositions are necessarily hypothetical. An assertion that a given state of affairs exists or has certain characteristics is not hypothetical. Its truth does not depend upon the satisfaction of some prior condition. All that is necessary for it to be true that "There is a rose before me" is that there *is* a rose before me. For it to be true that "It would be better for

me to believe that there is a rose before me," it is neither necessary nor sufficient that a rose be before me. That may not even be relevant.

Sixth, from all of the foregoing it follows that the truth of practical propositions can never be a matter of strict implication from true descriptive premises. Thus, unless we want to deny that inference is involved in practical judgments, we must conclude that inference involves more than implication.

Or rather, we should conclude that inference involves more than implication as Russell conceived it through 1919. Dewey's examples point indiscriminately to two quite distinct sorts of lacuna in Russell's account of inference. First, practical judgments involve what we now refer to as modal and deontic operators (necessarily, possibly, ought). Propositions containing such operators directly imply further propositions as necessary or possible by their connections to their premises, as C. I. Lewis would shortly be arguing in his 1918 *Survey of Symbolic Logic*. Thus Russell's conception of the nature of implication was (then) to that extent incomplete. But second, even if Russell's conception was adjusted accordingly, it would still be counterintuitive to limit inference to deduction and exclude experimental, inductive reasoning. Clearly, mathematical logic is sufficiently distinct from other forms of reasoning as to merit study in its own right. But it does not follow from this that we have any less reason to study other forms of inference or to include those other forms within the field of "logic."

Indeed, as Dewey points out, we should consider that "we may frame at least a hypothesis [*sic*] that all judgments of fact have reference to a determination of courses of action to be tried and to the discovery of means for their realization [so that] in the sense already explained all propositions which state discoveries or ascertainments, all categorical propositions, would be hypothetical, and their truth would coincide with their tested consequences effected by intelligent action" (1915, MW8:22). That is, we may view inductive inquiry as a prelogical or sublogical form of cognitive activity which so to speak prepares "material" in the form of propositions whose implications may then be studied by logic. Alternately, we may view empirical inquiry as the primary logical activity and inductive inference as the primary subject of logic. Since we use deduction to determine the implications of adopting various "rules" of procedure expressed in propositions, of granting that such and such may be true for the purposes of generating testable predictions or retrodictions, and so forth, the logic of implication would be studied as one of a number of instrumentally valuable procedures that empirical inquiry incorporates. This later view is the one for which Dewey would argue outright in *Logic: The Theory of Inquiry*. In "The Logic of Judgments of Practice," however, Dewey is only prepared to

argue for this conception of logic as an option at least as well worth pursuing as the realist alternative.

IV

Dewey anticipated the howls of protest his hypothesis was likely to produce. Four of the essay's five sections are devoted to replying to objections such as: Is moral judgment then nothing but a form of practical judgment? If so, why do moral realists believe they perceive moral and other value objects to which their moral and nonmoral value judgments correspond? Are scientific judgments practical judgments, and if so, what is the status of the entities that scientists take to be real? How do we explain their error in supposing that it is by correspondence to these real objects that their theories are to be proved true or false? Section 2 deals with the first two objections, while sections 3–5 deal with the remainder. I will not attempt to cover these rather wide-ranging discussions fully. In what follows I will focus only on the aspects that most directly connect with Dewey's analysis of practical judgment.

In section 2, Dewey argues, like Perry before him, that "there is a deep-seated ambiguity" in our use of terms like *good* that gives rise to a confusion of "the *experience* of a good and the *judgment* that something is a value of a certain kind" (1915, MW8:23). It is this ambiguity which gives rise to Moore's famous "open question" problem in *Principia Ethica*. Moore had noted that if we say, "Pleasure is good," we can still meaningfully ask, "Is pleasure good?" Moore had taken this to indicate that good does not *mean* pleasure. Dewey would agree, of course, but would counter that Moore had missed the more important point his open question highlights—that we use *good*, as we use *value*, both as a *descriptive* and as an *evaluative* term. "Pleasure is good" is true as a description just so long as the speaker who is pleased finds her pleasure good. But she can still ask herself how this experience ranks in comparison with alternatives open to her. When she does, she no longer merely experiences enjoyment but also appraises it.

Dewey writes, "Contemporary discussion of values and valuation suffers from confusion of the two radically different attitudes—that of direct, active, non-cognitive experience of goods and bads and that of valuation, the latter being simply a mode of judgment like any other form of judgment. . . . 'To value' means two radically different things: to prize and appraise; to esteem and estimate: to find good in the sense described above, and to judge it to be good, to *know* it as good" (MW8:26). Pleasure may be good, but I can still ask myself whether pleasure is what I ought to con-

sider 'good' in my current situation. Say I am at a party and I find myself by a plate of canapés that I nibble with pleasure as I talk with other guests. My enjoyment of them implies no evaluative judgment on my part. Suppose someone then remarks that canapés of that type are terribly fattening or contain *pâté de foie gras*, produced by means I consider unacceptably cruel. I will then be forced to evaluate my enjoyment, to rank it in comparison with other options. If I want to avoid appearing to condone cruelty to animals, I have a reason to conclude after all that abstaining from those canapés is *better* than partaking. Only when I arrive at a judgment of this sort does eating the canapés come to have a "value."

At first glance, Dewey's position might not seem significantly different from Perry's. Clearly Dewey's position is incompatible with Moore's, since Dewey holds that value judgments are practical judgments which are in part about noncognitive experiences of pain, pleasure, satisfaction, and so forth. But it may not be as immediately clear why it is incompatible with Perry's position or those of other subjectivist realists. Both Dewey and Perry are naturalists. Both assume a subjective basis for human evaluation, including moral evaluation. Nevertheless, there are important differences.

Recall that for Perry, a judgment such as 'the *Mona Lisa* is a particularly valuable painting because it was painted by Leonardo' describes the state of affairs that ensues upon the speaker's seeing or contemplating the *Mona Lisa*: satisfaction of her interest in visual representations plus satisfaction of her interest in perceiving or contemplating things connected with Leonardo. The proposition is true if and only if she actually experiences these satisfactions when she perceives or contemplates the painting. Dewey would object that this analysis is seriously incomplete.

First, it is not the case that 'the *Mona Lisa* is a particularly valuable painting because it was painted by Leonardo' simply reports a present or future state of affairs. On the contrary, it makes an assertion about the relative merit of one course of action (e.g., seeing, contemplating, preserving, investing in, setting fire to the *Mona Lisa*) versus others, given the constraints of her situation (e.g., her inability to see all the paintings in the Louvre on a given visit, to preserve or to buy all currently surviving Italian Renaissance paintings, or to make herself infamous by torching the Louvre's entire collection). As such, it clearly cannot be verified by simply putting the painting before the speaker's eye (or mind's eye) and measuring her emotional response. To know whether this inference is justifiable, we would have to know the circumstances of the speaker's situation, what alternatives are open to her, what beliefs she brings to it, as well as how she responds emotionally to interaction with this particular painting. Thus, whereas for Perry value judgments report facts, for Dewey "to judge value is to engage in

instituting a determinate value where none is given" (MW8:35). Its verification depends in part on the practical consequences of its tentative adoption.

In sections 3–5, Dewey argues that the failings he has identified in realist analyses of practical propositions recur in realist analyses of factual propositions. These failings recur, he argues, because realists commit the same foundational errors in each case. First, realists fail to grasp that practical judgments are the rule rather than the exception. Second, realists systematically confuse experiences, such as enjoyments and sensations, with judgments made about them.

Taking the latter first, Dewey argues that the new realists mistakenly treat so-called primitive sense perceptions or "sense data" as a sort of "atomic fact" in the way we have seen Perry mistakenly treat the satisfaction of interests as basic units of "value." But as we have also seen, from Dewey's point of view, to say that a given experience has a particular value is to report a judgment about an experience. It is not to describe or report the event itself. Likewise, to assert that 'this is red' is to assert a judgment about an experience, not a description. The second error exacerbates the first. If we uncritically assume that true propositions are propositions that report how things are in the world independent of our attempts to know it, then our atomic facts are all, strictly speaking, false. For sense data are subjective experiences unique to the points of view of particular percipients at particular times. Our reward for adopting the realist point of view, Dewey argues, is an epistemological debacle from which realists have no escape.

But one might wonder, as indeed Russell himself wondered, how Dewey's pragmatic approach to sense perception would differ from his own. In his review of Dewey's *Essays in Experimental Logic*, Russell writes:

Professor Dewey does not admit that we can be said to "know" what I call sense-data; according to him they simply occur. But this point, though he makes much of it, seems to me to make very little difference. . . . He admits . . . that perceptions are the source of our knowledge of the world, and that is enough for my purposes. I am quite willing to concede, for the sake of argument, that perceptions are not cases of cognition. . . . However that may be, Professor Dewey and I are at one in regarding perceptions as affording data; i.e., as giving the basis for our knowledge of the world. This is enough for the present; the question of the cognitive status of perceptions need not concern us. (1919, 23–24)

Russell had misstated and misunderstood the disagreement between himself and Dewey. Dewey does not agree with Russell that sense data are

either the source of or a basis for our knowledge of the world that lies outside our minds. For Dewey, the objects of sensory perception are the world. And as this world is of such immediate and practical concern to us, the primary object of our attempts to understand this world is not to describe it but to *manage* it. To manage it more effectively in a physical and emotional sense, we seek to manage it intellectually. Science is the practice of intellectual management of the sensory world.

Dewey remarks that “science is . . . such a specialized mode of practice that it does not appear to be a mode of practice at all” (1915, MW8:78) but simply a clearer vision or insight into how things are. Say, for example, we want to know more about cats. If a clearer vision or insight were all the advantage scientists had over ordinary individuals’ investigations of cat behavior, anatomy, or environmental impact, they would achieve little more. Physical scientists, like the rest of us, obtain their knowledge of the world by manipulating objects, analyzing their relations to other things and events, and then generating empirically confirmable hypotheses which they attempt to verify. But sensory objects have no implications. “Cats have claws and teeth and fur,” Dewey points out. “They do not have implications. No physical thing has implications” (MW8:77).

The objects with which physical scientists have to deal then are not the cats of our experience, nor are they instances of an independent cat-reality outside and beyond human sensory experience. The “cat” about which scientific theories of behavior or anatomy are devised “may be called a possible object or a hypothetical object” that does not “walk or bite or scratch.” But because it is a construct of the qualities and relations we tentatively attribute to sensory cats, these conceptual cats do have implications for future experience that scientific investigation can develop into experimentally fruitful hypotheses.

Returning to the question of the relation of Dewey’s pragmatic view of perception with Russell’s realist account, we can see that for Russell the world of sense and the world of experimental science are rival descriptions of a third world whose actual qualities can never be determined. For Dewey, however, the world of sense is *the* world, and the world of experimental science is a world of hypothetical entities adopted for their value as intellectually manageable models of sensory objects. Dewey writes:

There is then a great difference between the entities of science and the things of daily life. This may be fully acknowledged. But unless the admission is accompanied by an ignoring of the function of inference, it creates no problem of reconciliation. . . . It generates no problem of the real and the apparent. The “real” or “true” objects of science are those which best fulfill the

demands of secure and fertile inference. To arrive at them is such a difficult operation, there are so many specious candidates clamoring for the office, that it is no wonder that when objects suitable for inference are constituted, they tend to impose themselves as *the* real objects. (MW8:78)

In a paraphrase of the Butlerian tag with which Moore had opened *Principia Ethica*, Dewey remarks that scientific objects are in a sense real, but “they are just the real objects which they are and not some other objects” (MW8:78).

Dewey certainly hoped and expected that his attack on Russell’s account of propositions would be accepted as decisive. However, he did not imagine that his further arguments would be sufficient to establish to his readers’ satisfaction that Russell’s theory of logic mistook a subspecies of inference for its primary form. In his discussion of neorealist treatments of the problem of our knowledge of the external world, Dewey reminds the reader of his more modest goals: “My further remarks are not aimed at *proving* that the case accords with the hypothesis propounded, but are intended to procure hospitality for the hypothesis” (MW8:65) that a pragmatic theory of inference, containing mathematical logic as a subdivision, is not only conceivable but, if realized, would have at least as good a claim as Russell’s to be considered a theory of “logic.” It would be decades before Dewey would publish his attempt to make good on what in 1916 was merely a hypothesis. But the ongoing debate Dewey pursued with Russell and his neorealist colleagues in “The Logic of Judgments of Practice” and in succeeding essays helped shape the direction that Dewey’s constructive efforts would eventually take. Thus it marks an important step in the development of Dewey’s mature pragmatic theory, meriting closer study by historians of logic than it has so far received.

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Notes

1. Perry 1914 was followed by Perry 1917, which is a reply to Dewey 1915.

2. When exactly Russell first used the term *propositional attitudes* in print is unclear; however, the term appears in his 1918–19 manuscript notes for his 1921 text, *The Analysis of Mind* (Russell 1986, 268). He comes very close at times in *The Philosophy of Logical Atomism* (e.g., Russell 1986, 200).

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