Critical Review

Argument, Inferences and Dialectic

Robert C. Pinto

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It is always important when the papers of a major thinker are presented under one cover. It is particularly so with the collection of Robert Pinto's papers published as *Argument, Inferences and Dialectic*. The title is apt and identifies the deep theoretic concerns that Pinto addresses. The papers are uniformly provocative and address among the deepest issues in the foundation of informal logic. The book's thirteen chapters reflect efforts from over 17 years, some previously unpublished, and many from conference proceedings. A helpful introduction from Hans Hansen gives the reader a framework, and a final chapter offers a re-evaluation of his work by Pinto. Hansen gives a sense of the scope: "The status and the authority of argument standards, the concepts of 'argument', of 'inference' and of 'argument cogency' inconsistency and its relation to reasoning and to relativism . . . the role of logical form . . . normative argument schemes" among others (p. ix).

Pinto's efforts are uniformly deep and his conclusions sensible and moderated. His contribution to the many topics he discusses are invaluable and give a synoptic view of many of the most essential strands in the deep theory of informal logic, while offering a characteristic critical application of clear constructions, to considerable effect. Every topic he touches is clearer for his efforts and his conclusions are always plausibly argued for, challenging and open to further advance. There is much in every one of the essays to merit careful consideration, and the arguments put forward, even when ultimately modified by Pinto, are worth careful consideration.

Writing this review has been a considerable challenge, since Pinto's work, reflecting almost two decades of deep thought, is hard to compress into a simple exposition. Moreover, each essay is a treasure of detailed exposition and thoughtful critique, addressing both salient classical discussions and provocative modern thinkers. After long familiarity with the essays it is hard for me to leave out this or that analytical gem, and following a central thread always invites the possibility of misrepresenting or even misconstruing as-

pects of the arguments to make the connection with the thread more obvious. Nevertheless, the need for coherence in presentation requires that some hard choices be made. I take the focus for this review from the modified positions as indicated in the final chapter. Working backward from the modification, a deep thread in Pinto's work becomes apparent: the concern with critical practice and the community that supports it as essential to the evaluation of inferences. My reason for following this thread is not merely to represent Pinto's final position, for much of what is important in his work is to be found in early efforts that set the direction to which the modification points. Pinto's concern with critical practice indicates a significant challenge to logic as standardly construed, and happily, is the terrain which my own intuitions for the understanding of logical theory inhabit.

The concern with critical practice grows out of Pinto's logical concerns. Initially, the relation of argument to persuasion (Chapters 1 through 3) and most essentially, the relation of inference to argument (Chapter 4 and elsewhere). As he puts it, "arguments are invitations to inference" (pp. 36ff.). The move has many virtues. Pinto contrasts his view with the more standard view that sees argument as a relationship between premise and conclusion. His recommendation has immediate fruitful consequences. As is well known, the standard view of inference makes looking at the truth of premise, secondary to ascertaining the relationship of support from the premises. And the adequacy of argument is seen on some analogue to validity. Although informal logicians express similar concerns offering variations on the truth of premises—acceptability and the like—Pinto's move towards inference consolidates such concerns by seeing premises in light of the inference to be drawn. This shifts the discussion to an interesting complex of issues and outcomes.

The focus on inference enables him to make significant contributions to the notion of argument appraisal. Argument seen as "an invitation to inference" calls for assessment in terms the reasonableness of the premises and the inference seen in respect of a range of doxastic attitudes, construed to be broader than belief (Chapters 2 and 3). The discussion leads to the general issue of non-deductive inference in a very broad sense and yields insight in relation to problems of relativism. He distinguishes inferences from their argumentational outcomes, e.g., persuasion, in the standard view. He had already argued (Chapter 2) that a range of doxastic attitudes, indicating six levels of conviction, including such modifications as "being inclined to believe and suspecting," are all possible outcomes of argument (p. 12). He expands the conception from differing levels of conviction to qualitatively distinct outcomes, such as desiring, hoping, and intending, fearing, etc. Arguments that support such a range of doxastic and non-doxastic outcomes are judged in light of particular outcomes as indicated by the relevant attitude. This is an important move, for it moves the issue to the substance of the propositional (or even a non-propositional, pp. 17ff.) attitude rather than to an ubiquitous

notion of belief, to which other doxastic attitudes can be reduced. He summarizes this provocative line of thought as the very general claim that "*argumentation is the attempt to modify conscious attitudes through rational means*" (p. 19, italics in the original). The move to context does not inhibit the concern for a detailed discussion of elements of argument. Pinto's intuition, however, is that it is the attitude that is the argumentational goal that determines the criteria by which supporting inferences should be evaluated.

Pinto's arguments and my own predilections prompt me to agree. But that does not alter the key question: whether to accept the invitation to inference in support of the outcome, whatever its doxastic nature. Pinto sets his position in relation to the positions he rejects. The strategy here, and in later essays, is to argue that the range of inferences that need to be evaluated cannot be characterized in the terms of formal logic or the alternatives that informal logic provides. Not surprisingly, he rejects the idea that the inferences need be as strong as entailment in the classical sense (p. 38) and sees his earlier concerns with the range of doxastic and non-doxastic attitudes in terms of Peirce's notions of habits of mind and guiding principles (p. 40). This raises a version of what will be an essential critical question. Can habits of mind and guiding principles be articulated in a fashion sufficient for the normative constraints needed if an invitation to inference is be accepted on, roughly, epistemological grounds—that is, because it moves the cognitive purposes of argument forward?

Already in this early essay, Pinto indicates an underlying normative substructure, and this will become a major theme in his reformulation of his point of view: a practice of criticism (pp. 43-4). As we shall see, Pinto will eventually see the appeal to critical practice to be as a good as we can get, something short of a full theory of inference, but yet strong enough to ground our normative endeavors. But before he can come to this modest and relatively amorphous point of view, he must reject apparently more robust alternatives, such as that argument evaluation can be seen to as based on rules or schema (Chapters 9, 10 and 11). The intervening chapters set the tone.

The moves in these seminal chapters are foreshadowed in thoughtful and provocative discussion of particular logical issues: inconsistent premises and the *post hoc* reasoning (Chapters 6 and 7). In these early discussions the focus moves from the formal characteristic of inconsistent premises (that they imply all propositions) to the way inferences from inconsistent premises could be managed in light of epistemic goals (pp. 49ff.). Similarly, his discussion of *post hoc* moves to broad concerns with causal reasoning and finally sees the legitimacy of causal reasoning (non-fallacious reasoning, *post hoc*) to be seen in relation to a "backdrop of experience" (p. 61). In both of these discussions, the movement is from logical accounts (whether traditional or contemporary) to one that looks to "exemplars," and from there to critical practice (p. 63). It is this general appeal to practice that Pinto sees as furnish-

ing the normative ground, since we are "bereft of theory, at least the kind of theory that can ground principled judgements as to what is and isn't a fallacy" (p. 63). We must look to "the context in which fallacy labels are (or should be) used: namely, a context of critical discussion" (*ibid.*). And as we shall see, it is this lack of theory in a number of important regards that moves Pinto to see himself as offering reminders in the sense of Wittgenstein rather than an alternative theory (p. 129).

Relegating logical issues to how they are managed in particular cases raises the issue of relativism. Pinto opts for what he calls "sophisticated epistemic relativism," which he expresses as: "There is no set of epistemic standards or criteria of which it can be said that is it uniquely correct or correct *sans phrase*" (p. 54). The import of this qualification will be at the center of his reformulated theory, offering both the direction in which the study of inference should move, and a crucial test for such a point of view.

Looked at generally, Pinto's strategy is to broaden the purview from the logical to the contextual. So, in the discussion of coherence as a basis for belief (Chapters 7 and 8) he begins with a narrow logical view of coherence and quickly shows it to be inadequate (pp. 64ff.). The discussion, driven by a range of examples and with reference to relevant philosophical positions, moves the discussion of coherence to the context. Viewed psychologically, in terms of coherence as a hallmark of the validity of inferencing, Pinto looks to an overview of the subject that will offer a sense of the subject's "understanding" that could furnish a psychological surrogate for the reasoning process, something akin to a narrative whole, but which, unfortunately, does not seem to be available (p. 71, see also Chapter 12). Coherence is viewed as the "objective correlate" of such nuanced understanding, and requires that a critical overview of the domain be available to understanding (pp. 70-1). Reasoning "takes place on the basis of an understanding that involves an overview of the domain we are reasoning about" (p. 67). In this regard, he offers a number of constraints. The following gives the flavor:

> a) to make intelligent nondeductive inferences from any body of data we need a grasp of what the plausible alternatives are to the hypothesis we are adopting, and we can't have that without some *general* understanding of the field we are reasoning about
>
> b) to make intelligent deductive inferences from any set of assumptions or premisses, it is not enough to assure ourselves that our conclusion follows from the premisses we have strong reason to accept; we also need assurance that our conclusion doesn't run counter to propositions that are more entrenched than the premisses from which our inference begins; and to have such assurance we need a *general* understanding of the field we are reasoning about. (p. 67)

As indicated already, for me the most salient discussion is that surrounding logical form and other schematic attempts to group inference in underlying patterns. Pinto's discussion of logical form and logical schemes, including the notion of presumptive reasoning, offer the most theoretic development of the

notion of inference, where following Walton (1996), he sees "critical questions" as a crucial beginning.

The rejection of logical form or argument schemes as the core of the theory of inference is based on a number of familiar philosophical concerns. Pinto puts the connection as: "I am going to operate on the supposition that arguments are invitations to inference and that *logical* appraisal of an argument (as opposed, say, to rhetorical appraisal or moral appraisal) focuses on whether it is reasonable for those to whom the argument is addressed to make the inference that the argument invites" (p. 81). He continues:

> When we learn to engage in argumentation, and when we learn to make all but the most rudimentary inferences, we are initiated into an intersubjective practice of criticism that enables us to appraise inferences on the basis of certain broadly or commonly recognized features and/or standards. I have argued elsewhere that this practice of criticism in its developed form cannot be reduced to the application of any simple or straightforward sets of rules. (*Ibid.*)

The "elsewhere" alluded to is in an earlier essay, and he quotes himself:

> . . . 20th century epistemology—and in particular, 20th century philosophy of science—has made us aware that the goodness of many of our most fateful and highly prized inferences do not yield to any simple analysis in terms of pattern or guiding principle. And yet the value of those inferences is not something that is just arbitrarily accepted; rather it is something open to discussion and rational evaluation." (p. 81, citing p. 43)

Pinto supplements his earlier discussion by "considering what role it is reasonable to expect logical form to play in the practice of criticism or critical reflection" (p. 81). Pinto had already argued that "entailment is neither a necessary nor a sufficient condition for premisses to be suitably linked to their conclusion" (p. 82 also Chapters 3 and 4). He moves to the broader question, "whether *logical form* holds the key to validity," where validity is construed broadly as the theoretic basis for our assessments of premise-conclusion links, in some general sense not limited to deductivism (*ibid.*). As in previous essays, Pinto argues by examples. He sees two broad areas of counterexample, "semantic entailments" and inductive generalizations "considered in the light of Goodman's paradox" (*ibid.*). Although the counterexamples carry the weight of the argument, Pinto rehearses the alternative views of Govier (1994) and Finocchiaro (1994) that extend the discussion of logical form through the use of analogies. Whether this is reducible to logical form remains to be seen.

Drawing on the fundamental views of Quine and Hintikka, he recalls the distinction between logical and non-logical constants (pp.83-4). Given that much, he turns to semantic entailment, offering the standard analysis that requires an additional premise, a meaning postulate, that supports the entailment. As in many places, Pinto sees his arguments as inconclusive, but still finds them compelling.

Take (A1) to be a sentence such as "The person standing next to the prime minister is his sister," (A2) to be "The person standing next to the prime

minster is female," and AMP to be a sentence to the effect that "Anybody who is somebody's sister is female" (p. 85). He outlines four assumptions. With suitable qualifications their gist is:

(1) "the issue of whether A1 is suitably linked to the conclusion, A2 reduces to the issue of whether A1 entails A2"
(2) "the relevant concept of entailment is . . . strict implication"
(3) "it is a truth of modal logic that *if* (p and q) strictly implies r and it is a necessary truth that p, *then* q strictly implies r"
(4) "the 'meaning postulates' which we would add as premisses [e.g., AMP] . . . qualify as necessary truths" (p. 86).

He draws his conclusion: "From assumptions (1)–(4) it follows that wherever A1 & AMP entail A2, and AMP is a meaning postulate, then A1 by itself entails A2. In other words, semantic entailments hold *without* the inclusion of meaning postulates as additional premisses. From this it follows that inferences which hinge on semantic entailments are not dependent on the logical form that is exemplified when a meaning postulate is brought into the picture" (*ibid.*). He notices that the controversial assumption is (4).

He then indicates a variant of the argument from Hitchcock (1994, p. 59; and other works), that sees the core of validity to rely on a core intuition, quoting Hitchcock: "An argument is conclusively valid if and only if it has no analogue that is a counterexample" (p. 87). An analogue is a counterexample to a validity claim that mirrors the form of the original argument in terms of the status of the "variables of the argument's associated material conditional." Although Pinto doesn't elaborate the view, he notes that Hitchcock is indifferent to the status of what in the standard view would be the missing premises (it can be a "logical truth," "a semantic postulate," or a "covering generalization"). Pinto sees Hitchcock's work as trading between the notion of form and that of analogue, since "whether a component should be interpreted as a variable depends on whether the result of substituting for it produces a genuine analogue of the argument" (pp. 88-9).

This raises an essential foundational issue motivated in terms of the suspect assumption (4) and in light of Hitchcock's distinctions among what we might call, after Toulmin, warrants. It seems to me that there is no clear sense in which the full range of warrants, construed as generalizations that support inferences, could be accommodated to any univocal sense of necessity. This is immediately clear from the distinction between logical truths and nomic generalizations. Clearly, the former hold in all possible worlds, and the latter only across all physically possible worlds. A difficult issue is that of "ordinary language" warrants such as "x is colored implies x is extended"—the very sorts of meaning postulates that exercised early discussions of entailments. It is just not clear to me what the range of possible worlds is in which such entailments hold. The domain across which ordinary language extends is metaphysically opaque. And a commitment to draw inferences in ordinary dis-

course seems limited to language community users in fairly radical ways, as recent work in linguistics and socio-linguistics points out (see Gee, 1996). Moreover, the traditional optimism that terms in ordinary language denote concepts and that philosophers can somehow intuit conceptual relationships among them is just as robust as the results that philosophers have agreed on over time. That is to say, hardly robust at all.

The example of sister and female is less problematic, since we can envision an anthropological theory that defines systems of kinship which constitute an equivalence class of societies, construed as possible worlds, in which such kinship relations hold. Of course such statements are generally construed as being warranted by the meaning of ordinary language rather than by anthropological theories, in which case the problem reduces to the first. There are no univocal theories of ordinary entailment, merely more or less contentious instances.

The range of entailment kinds raises a possibility that I have argued for, for many years (Weinstein, 1991). If we take the sorts of examples Pinto mentions as indicating an intuitive range, we can see immediately that the nature and logical force of arguments range from logical implications, putatively necessary semantic entailments, restricted entailments across a chosen set of models as in many scientific theories, non-monotonic entailments that only hold *ceterus paribus*, to weak entailments that are no more than suggestive, as in "if we construe x to be y, then z."

This suggests to me that an essential move in the development of theories of entailment is to characterize entailment kinds (families of entailments that function in the same way). Given some rough and intuitive analogy with the relation between logical entailment and implication, we might expect for each entailment kind a linked implication relation based either on an appropriately modalized warrant, or alternatively, on appropriately characterized inference tickets. I have explored in detail how such a relationship could be given rigorous metamathematical content for entailments that depend on theoretic depth and breadth, modeled on entailments within mature physical sciences. Theoretic breadth, the consequences across fields of concern, supports the analysis of the force of an implication by indicating the range of models across which the implication holds, and theoretic depth reflects the truth-likeness of the implication by identifying the stakes across connected theories (and their models) of the acceptance or rejection of a particular warranted inference as a function of disequilibrium across the system (see Weinstein, forthcoming). Broadening such a theory beyond systems that could have articulable model relations (such as mature physical science), in search of a general theory of semantic entailments, is an enormous task. It seems to require, at least, the identification of families of entailment kinds along with the dialectic appropriate to each.

Pinto also relies on science for many of his arguments, but it is the radical philosophy of science of Kuhn rather than mature and effective scientific theories. The points of the radical critics were certainly well-taken if the model of rationality in science is akin to the simplistic layer cake model of the neo-positivists or the reductive hopes of instrumentalists and other straight-line verificationists (falsificationists). Certainly, as Feyerabend and others were wont to point out, if deductive relations is the ideal, science is full of amphiboles where deductions were required. But that points to the inappropriateness of the philosophical criteria rather than to the non-rationality of scientific practice. I agree with Pinto wholeheartedly that the ground for inference is critical practice. But I see little to be gained by limiting the perspective of argument theorists to models of practice vitiated by Platonistic or Aristotelian models of deductive adequacy rather than by confronting the critical practices of the most effective cognitive enterprises know to the history of human kind: the physical sciences (see Weinstein, 1999). My intuition has always been that the physical sciences, especially physical chemistry, were the sort of ideal type that would yield salient examples and a fragment of a theory of semantic entailment. But whether my remarks are considered serious or mere hyperbole, to me they set a critical question that Pinto's discussion of informal logic raises. Can logicians come up with a general enough account of kinds of entailment relations that will afford a theory of inference broader than the traditional mathematical models that were the concern of traditional formal logic, driven by the notion of mathematical proof, construed Platonically to be necessary in the strongest sense?

My intuition is that the theory of such arguments needs to be handled differently. Nevertheless the case is an important one. Pinto accepts the basic insight of Quine and others that the distinction between truths of meaning and other sorts of truth is both ambiguous and porous (the analogue to the distinction between logical and extra-logical constants), but moves no further than, e.g., Carnap in seeing semantic entailments as all of a piece. As I have indicated, this seems wrong-headed and in my opinion cripples the possibility of the sort of theory that might go to offer an account, instead of the counsel of despair that Pinto ends almost all of his discussions with, reflecting his correct view that there is no adequate theory of inference.

Seeing semantic entailments as all of a piece supports the sort of view represented by Pinto as seeing meaning postulates as some sort of universal generalization across terms. But of course as Pinto sees, these are hard to come by and even harder to support, especially if the model for adequacy is drawn from logical implication. Instead, as before, looking at argumentation across the disciplines, I see wide-ranging kinds of entailments, construed broadly as "inference tickets," going from logical and proto-logical relations (semantic relations that support full substitutivity across models), to well established laws in science that quantify over all elements in limited domains, to

heuristics ranging from the universalistic recommendations for meaning, as in the "persuasive redefinitions" of philosophers, to tentative analytic frames, as in economics or even engineering, and to specific operational or other constrained definitions that limit inference to a specific context of argument. These apply when they are effectively used but are essentially defeasible, since as part of ongoing and tentative inquiry, the structures that support inference are being discovered in the inquiry itself.

I think Pinto might agree. His concerns are not limited to entailments construed on the model of logical implications. His discussion moves to degrees of inferential support in science, where warrants afford, at best, inductive strength (or in my terms, entailment across a restricted range of models). Pinto's discussion looks at Goodman's classic "new riddle of induction." Pinto does not see himself as solving the riddle, but rather connects it to his concern with logical form (p. 91). He moves the problem from "a problem of distinguishing between hypotheses that can be confirmed by positive instances from hypotheses that cannot", to that of "reaching a conclusion about the relative frequency of a property in a population on the basis of its relative frequency in a sample drawn from the population" (p. 91). That is, Pinto moves from the original problem of which predicates are projectible (a version of the problem of abduction, or the choosing of hypotheses to be confirmed) to the simpler problem how we infer from a sample to the population. Given this reconceptualization, Pinto's move is straightforward; stated in the negative: "Do not project the relative frequency of a property A from a sample onto a population where there is a property B such that

1) B is underrepresented in the sample and
2) B is likely to affect whether a member of the population has the property A" (p. 92).

That is, although we

> cannot expect the composition of our samples to be like the composition of our population in *every* respect . . . we should strive for those samples whose composition is like that of the population in respect of those features we think will affect the property whose frequency we are trying to determine. *(Ibid.)*

This, then, leads to Pinto's "moral": "the decision we make about the validity of a given inductive generalization depends in part on our background assumptions about logically contingent mattress of fact; ergo, inductive validity cannot possibly be reduced to matters of logical form" (*ibid.*). This leads to another critical question: can informal logicians or argument theorists develop a theory of how background knowledge enters into the evaluation of inference that will move the understanding of this process further?

Pinto see that his discussion is not conclusive, but rather supports the presumption for projecting a predicate based on our background knowledge: "The most we can say, I think, is that the salient assumption 'coheres with' our current understanding of the world, and its rejection does not" (pp. 92-

93). The notion of presumption will exercise him for the remainder of the essay and the next two (Chapters 10 and 11).

He does not see presumption as a form of validity, nor does he see every inductive argument as presumptively valid (p. 93). Rather validity reflects the background as a set of second-order considerations brought to bear on the argument, thereby rendering the first-order formal properties insufficient for the purpose of assessing validity. He offers a summary that captures what he has been arguing for in the essays up to this point.

> In addition to the stretches of theory that can, in certain contexts, advance the aim of critical practice, there are evaluative techniques and strategies, not grounded in theory, which can be continued, cultivated and elaborated upon, and studied. I count among such non-theory-based techniques the method of logical analogy and the deployment of the concept of fallacy and of the fallacy labels. It may turn out after all that the core of our critical practice will continue to consist in techniques not grounded in a theory. If so, that perhaps ought not to surprise us, since there is a long tradition that views logic as an organon or art, rather than a science. (p. 97)

The discussion of presumptive reasoning begins with a focus on Blair's identification of such reasoning as constituting a distinct class of arguments (Blair, 1999). Pinto's concern is with the connection between presumptive arguments and argument schemes, and in particular the following claim: "Any instance of a recognized argument scheme should be *presumed* to be a *good* presumptive argument/inference (though that presumption can be overridden in special circumstances)" (p. 101). This follows an analysis that sees presumptive arguments to shift the burden of proof onto the antagonist. Pinto relates his discussion to an example, the argument from "sign" (pp. 101ff.), but his issue transcends the example, basically looking to challenge the normative (rather than descriptive status) of argument schemes, where with appropriate *ceteris paribus* conditions an argument scheme "describes a pattern of reasoning or argument the premisses of which, if true, provide support for the conclusion" (p. 100). Using the example of the argument from sign (signs or symptoms as evidence for the attribution of a property or event kind), Pinto distinguishes between two sorts of grounds where the presumption will not yield *prima facie* validity: roughly, the premises are deemed misleading, and the supporting generalization deemed inadequate. This moves him, following Walton (after Hastings) to exhibit two critical questions that need to be asked about arguments from signs, given the truth of the premises.

> 1) What is the strength of the correlation of the sign with the event signified?
> 2) Are there other events that would more reliably account for the sign? (p. 104)

Pinto offers a working analysis:

> I'll take *presumptive reasoning* to refer to arguments or inferences that exemplify something like the following pattern:
>
> 1) When *A* is the case, then *typically* or *usually B* is the case [(]or: *other things being equal B* is the case).

2) *A* is the case here.
3) So presumably *B* is the case here. (p. 105)

Pinto adds a number of basic caveats including, crucially, that the claim is defeasible in the sense of being non-monotonic, that is, open to additional information, and secondly, that "typically" should not be construed probabilistically. The latter is developed as "expressing a commitment to take the occurrences of *A* as a *ground* or *reason* for presuming that *B*" has occurred, rather that as a reference to, e.g., relative frequency. Lastly, generalizations licensing presumptive inference are "pragmatically justified," though by this Pinto does not intend to limit them to practical rather than theoretic contexts (pp. 106-7).

The notion of presumptive reasoning is linked to argument schemes, which, he claims, do not validate an inference, but rather, "merely create a presumption in favor of the conclusion" (pp. 110-1). "The *schemes* can't be what provide the validation of presumptive reasoning, because the use of a particular scheme on a particular occasion itself always *stands in need of validation or justification*" (p. 111). A clue to the process of validation are critical questions that "guide a respondent by reminding him or her of where to look for relevant overriding or undermining evidence" (p. 112). The ultimately pragmatic function of presumptive argument, in light of argument schemes and in relation to critical questions, is to serve as a "*heuristic*" (*ibid.*).

Although critical questions begin the task of articulating the internal logic of presumptive reasoning, the fundamental ground for validity is the notion of critical practice. This idea has been indicated in many places, but it is in the final re-evaluation of Pinto's position that it takes center stage.

In his early papers Pinto follows the tradition and locates the context of argument to be "where one person offers an argument to persuade another" (p. 1 and then p. 126). He rejects this view, common to, among others, the pragma-dialecticians and Walton at times, and replaces it, placing the "locus of the *logical* appraisal of arguments [in] the inferences which arguments invite" (p. 126), conditioned by "our shared critical practice" (p. 127, boldface in the original). The focus on "the crucial role of our shared critical practice" includes its role as a "necessary condition of the capacity for inference . . . [and] . . . what anchors the very meaning of the fallacy labels" (p. 127). It is a deeply structural component of his position and supports his questioning of the utility of argument schemes and formal theories. Pinto's use of critical practice is a standpoint from which more standard views in formal and informal logic can be seen to be problematic. But he insists that he is not advancing a theory to "fill the gap" that challenges to more standard conceptions of argument and argument adequacy might be seen to create. Further, he sees "no general *theory* of argument or inference [currently existent] or . . . in the offing" (p. 128). This requires a moment's pause. After questioning the importance of what he has done in light of its not forming a

general theory, Pinto maintains, "I now hold that our judgments about arguments and inferences are guided by *a tradition of critical practice* rather than by an over-arching theory" (p. 129). Agnostic about the possibility of "a theory that might ground a future critical practice sufficiently to serve our practical epistemic ends" (*ibid.*), Pinto cites both Wittgenstein and Rorty to support his intuition that what his work does is "*illuminate existing critical practice*" (*ibid.*). These "observations or reminders" offer a "clearer perception of how [a] practice works, an appreciation of its strengths and weaknesses, and fruitful suggestions for improving it" rather than contribute a theory that might serve as a "foundation and an anchor" (pp. 129-130).

Pinto spends the bulk of the final chapter reconstructing some of his initial positions in light of such "observations or reminders." The notion of critical practice is developed in contrast to his original view, typical of much of the tradition that flows from Plato's *Gorgias*, that sees "at least some standards appraisal [to] 'get the only force of validity they have from the fact that those who engage in argument choose to endorse them'" (p. 134, citing p. 5). That is to say that standards are local to the argument context, as for example, in the basic Amsterdam model that sees an antagonist and protagonist agreeing upon standards as part of the "opening stage" of argumentation (van Eemeren and Grootendorst, 1984). Pinto sees such views as inconsistent with the view "that standards . . . are in fact always open to challenge within the context of a dialogue" which need not bring the "dialogue to an impasse" (p. 134). Views that see the dialectic as "strictly an affair between two parties" are "misleading" since they "deny the constitutive role that potential argument and reasoning play in conferring validity upon standards in use and because they do not acknowledge the constraints imposed by membership in a cognitive community and by that community's tradition of critical practice" (*ibid.*). Pinto reports that his view was in response to Rescher, who sees "A shared procedure for the assessment of plausibility and the allocation of presumption . . . as a critical factor in dialectic" (Rescher, 1977, p. 45). He agrees that "there is an important sense in which a shared framework of assessment is indeed a 'critical factor'" (p. 135). But he sees it to be achieved "within the context of any dialogue if it is to proceed to a successful conclusion" (*ibid.*). However, it is seen to "presuppose an existing, shared agreement on at least a few *other* issues concerning standards" (*ibid.*). He quotes Sellars (1967, p. 170) approvingly that discourse about standards "is rational, not because it has a *foundation* but because it is a self-correcting enterprise which can put *any* claim in jeopardy, though not *all* at once" (*ibid.*).

Pinto's epistemological perspectives leads to three projects:

> (1) to cash out talk about "objectivity" in terms of intersubjective validity . . .
>
> (2) to make intersubjective validity of a set of standards depend on whether adherence to them is sustainable within the broader cognitive community, and

(3) perhaps even to countenance the possibility that a "regulative ideal" of rational discourse is to *seek* a set of epistemic criteria which are sufficient to our purposes and which *all* rational agents could be persuaded to adopt. (p. 135)

He reaffirms "sophisticated epistemic relativism." "There is no set of epistemic standards or criteria of which it can be said that it is uniquely correct *sans phrase*" (p. 136). But "one set of standards can be better or worse than another, and two differing sets can have counterbalancing strengths and weaknesses. In short, on this view, the differences between differing sets of epistemic standards are supposed to *matter*, even thought there's no such thing as *the* right set" (ibid.). This view differs from relativism in that "flat-out relativism provides no space in which competing epistemologies can compete in a *rational* way, no room for human persons of different cultures and epistemic persuasion to seek a *rational* accommodation of their differences" (*ibid.*).

The position is reconstructed from the "re-worked" analogous position of Chapter 1 with its focus on rational persuasion and dialogical dyads.

T1. The standards for assessing adequacy of arguments and inferences are themselves items that can and often must be addressed in the course of arguing and reasoning.

T2. When questions about standards become the issue, the ultimate "criterion" must be whether and to what extent a particular formu lation of standards can be sustained in dialectical interchange with other members of the cognitive community. (p.136)

A set of epistemic criteria is "*objectively valid and complete* for a community if and only if (i) it is sufficient to the purposes of that community and (ii) it can be sustained in dialectical interchange throughout that community" (*ibid.*).

T3. In the cognitive community that matters to us, we do not presently have a set of epistemic criteria that is *objectively valid and complete.*

T4. There is no compelling reason to suppose that, within the cognitive community that matters to us, we can arrive at [a] single set of epistemic criteria that is *objectively valid and complete.*

T5. There is compelling reason to suppose that, within the cognitive community that matters to us, we cannot arrive at a single set of epistemic criteria that is *objectively valid and complete.* (p. 137)

He sees T3 supported by the arguments in Chapter 1, pp. 5-8 and Chapters 7, 8, 9, and 12 to support the view that "the standards presently available to us stand in need of significant elaboration and enhancement" (p. 137). T4 is supported by "the history of epistemology," a history that is characterized by "epistemic revolutions" (*ibid.*). He sees no reason "that this continuing historical development will or can reach an end point" (*ibid.*). Arguments for T5 are similar, that despite "local" resolutions, "debate among philosophers about broad issues of epistemological principle seem seldom to result in a meeting of the minds" (p. 138). Historically contingent conditions make accommodation across "diverse cultural conditions" difficult in that our "historical rootedness

can never be entirely left behind" (*ibid.*). This is complicated by divergence of relevant "non-epistemic standards" (*ibid.*). He notes that this renders T5 problematic, since it is not impossible that such issues will be resolved, and they are not difficult in principle, but merely in practice (p. 139).

Pinto comes to the following conclusions:

1) The practice of criticism is not something that stands apart from argument and inference, but is itself an intrinsic and essential component of arguing and of reasoning.
2) The articulation and elaboration of standards for the appraisal of arguments and inferences is in no sense a *fait accomplit* [sic], rather, it is an on-going process that is also an intrinsic and essential component of arguing and of reasoning.
3) The initial position from which arguers and reasoners begin lies in the historically contingent practice of criticism into which each has been initiated.
4) Although as arguers and reasoners we have *started from* one or another historically contingent critical practice, we are not prisoners of such practices, since must of us currently follow practices that we have arrived at by modifying initial positions through rational means.
5) Our standards and our reasonings achieve objectivity and intersubjective validity to the extent that we succeed in securing broader acceptance of those standards and reasonings through dialectal interchange rationally conducted. (p. 140)

I have presented Pinto's view in some detail and without critical comment because of the significance of what I see to follow in so far as what he says is true. From the point of view of the readership of *Informal Logic*, the most powerful consequence is that it signals a broadening and deepening of informal theory and practice. And this for a variety of reasons. The concern with the range of doxastic attitudes and stakes makes what goes on in most textbooks and much theory at best a small part of the task of understanding argument. Compare assessing inferences in an undergraduate course by applying a fallacy label, where argument assessment requires relatively superficial analysis since the application is geared to the identification and utilization of tools, as contrasted with the analysis of the argument in a serious professional context where the charge of fallacy would have to be supported with sufficient nuance to engage with the complexity of the evolving situation and complex knowledge structures employed. The mere fact that doxastic adequacy is a function of the significance of the conclusion makes the straightforward application of even the most intuitive fallacy difficult to apply in a univocal way across varying epistemic needs and resources. At the very least, in the most mundane terms, in informal logic courses the range and complexity of examples needs to be expanded, or a careful argument for the merit of relatively superficial assessment in the name of the development of tools and

skills needs to be made. But of course, this is a mere stalking horse for the real issue and that is the notion of cognitive community and the transformations that it requires within the theory of argument.

In the standard model, discussants identify themselves through speech acts and thus their identities, and so at least in principle, their standards for argumentation (as well as beliefs), as well as the procedures for establishing agreement, can be taken as granted. They can be taken as granted as either known in the abstract sense—the role of logic, informal logic and pragma-dialectics—or as in principle articulatable by the interlocutors. Any similarly denotative construct could, again in principle, yield some claim to resolution of what in pragma-dialectics is called the opening stage, but the results (tacit or overt) of opening-stage adjudication becomes less clear as the extent of the community increases. So, for example, identifying the community through sociologic constructs like professions frequently yields standards, but as frequently shows complexities beyond simple portrayals of univocal standards in use. Case studies frequently show overlapping communities, especially in complex arguments about multi-logical issues such as policy deliberations (see Tindale, 1999). Such complexity might be seen as grounds for seeing the task as hopeless, especially as reflected in the educational uses to which informal logic and the theory of argument are put. But it offers an essential challenge for theorists.

So, at the very least, as long as Pinto's intuition can be plausibly extrapolated to answer the basic question of argument assessment and theory, we must move beyond the proto-logical structures of argument diagrams and schemes. And we must move the discussion of fallacies beyond a singular focus on past and present work in informal logic and address how the fallacies (and correlative argument schemes) are to be understood and employed in discourse contexts to which they are essential. Pinto's perspective also brings into question the justification of elementary informal logic as relevant to ordinary life and argument. Are there critical practices and critical communities in any logically relevant sense in ordinary life? And if there are (as in, for example, political discussions among citizens), are these redeemable in terms of normatively sound and supportable accounts of the norms properly in use? Is informal logic as currently construed the critical practice of ordinary life? And at what doxastic level? Certainly informal logic, even in elementary texts, seems to have a great deal to offer to beginning reasoners, although I doubt that much doxastic weight should be put on the result of such deliberations. Is informal logic or some plausible extension of current understanding sufficient for a critical practice about ordinary affairs or does it need to be enriched by the considering the practices of more disciplined critical communities?

So, just as examples: Can appeal to expert opinion function in argument evaluation without understanding the role of expertise in a field (roughly construed as the overlap between method and concerns), for example, the testi-

mony of psychologists in court cases as opposed to testimony by a forensic chemist? And given the subject of testimony, the degree of reliability of even chemical experts could vary widely. How can we evaluate appeal to popularity without taking into account what social psychologists know about the accretion of public opinion, without appreciating the construction of opinion by shared presupposition, available and manipulated information? How does the art and science of polling affect the reliability of descriptions of public opinions? How can we evaluate putative slippery slopes without having some sense of the causal gradient relative to the topic under discussion? Can we determine the "one-sidedness of arguments" without specifics as to the status and availability of relevant alternatives? There are always alternatives; relevant alternatives are a function of the problem situation and so transcend the mere logic of the situation. Can *post hoc* even be meaningfully discussed without taking into account the variety of normative strictures placed on causal arguments in theoretically mature sciences like physics and chemistry as contrasted with descriptive and stochastic inferences, as in many social sciences?

Any attempt to develop a sense of normative standards from actual critical practice faces another difficulty. Could any actual group of discussants be adequate to the role that Pinto sees it playing? My sense is that it couldn't, for inquiry moves in the most surprising ways and so it is hard to argue that at any point the actual interlocutors can be a surrogate for potential interlocutors whose insights may prove essential to the evaluation of the argument. This is captured by Pinto's insistence that standards are themselves open to change and that no set of standards is adequate "*sans phrase*." I see the problem as deeply rooted in the philosophical intuition that would caution moving from the "is" of any particular example to the "ought" required if the judgement is to function as a norm, that is, appropriate across a range of relevantly similar situations. This, of course, moves the discussion from actual interlocutors to various constructions of an ideal audience.

The problem with ideal models is that without an adequate abstract theory of inquiry it is hard to capture the normative *bona fides* of such groups and although with care we can extrapolate sets of ideal conditions from actual debates, without a sense of what about the practice supports normativity, the extrapolation is unmotivated. (I see this as a corollary of Pinto's argument in respect of Goodman, but I wonder if he would.) While such ideals are harder to define than to indicate, it seems to me that except for fundamental logical principles they are best identified and refined by drawing upon the specifics of the discourse of available groups who might plausibly serve as exemplification of best practice. But we are caught in the circle. If the basis of normativity is critical practice, we want to have some sense of which critical practice it is and how such practices are identified. Without a procedure for identifying the discussants, the scope of the community from which standards (as well as other things) are drawn is, in principle, in doubt. This of course, is one of the

criticisms familiar to informal logicians against McPeck's call for discipline-based critical thinking. Whether an adequate criticism of McPeck, it is a telling point in relation to Pinto. Not surprisingly, given my position, I think the complaint is wrong-headed against both McPeck and Pinto. But it is telling in that since if Pinto is right (as I am assuming and believe), the cognitive community must be identified if the process of criticism is to take place.

An easy answer, given the discussion earlier, is to let the cognitive community identify itself by actual participation. This in some profound sense is true, since it is mainly against actual objections that argument moves. But this raises the issue that is at the center of any criticism of descriptive or denotative characterizations, since we see our standards as standards that extend beyond their actual use, minimally to other possible uses, and maximally to the vast domain of human discussion most of which, if the race is blessed, is yet to be engaged in. So which community and for which arguments, in which context and over what interval? The question reflects the basic normative insight that to function as a norm a standard must be applicable across the range of its possible instances. And so we are forced to identify constraints, at least. Here, logic and the general theory of argument are essential in defining general constraints, but if I read Pinto correctly, we must insist that, even if necessary, such constraints are insufficient to the task of evaluating inferences, and therefore inadequate as the basis for theory.

Addressing his arguments to the informal logic community, it is no surprise that Pinto uses philosophical examples and reasoning about ordinary affairs. But are these the cognitive communities to which he alludes when he appeals to critical practice as a condition for the evaluation of arguments across the board? My sense, judging from the discussions, especially of causal attributions, is that he requires a broader sense of the available critical communities than philosophers and other argument theorists provide. But whether he does or not, that is where his intuition leads. This has been the focus of my recommendations over the years. The cognitive communities required for the evaluation of the overwhelming majority of arguments that should be the concern of enlightened and informed citizens and liberally educated students draw essentially from what I call disciplined (or well-managed) discourse communities, that is, discourse that is informed by an effective critical practice, that identifies, applies and modifies norms (Weinstein, 1990). As I have said in many papers and for many years, the practices of philosophers, epistemologists and logicians are relevant to the critical evaluations of arguments, but are not uniquely so. Rather, I think that the content of the argument, what Pinto may intend when he speaks of "background knowledge," influences normative judgments, including both the specifics of substance and the utilization of appropriate norms in an effective manner. That is, the content, illuminated by disciplinary context, determines the arena from which normativity should be drawn. This has enormous consequences for logical theory. The adequacy of

a critical account must ultimately be evaluated in terms of its descriptive adequacy in the following new sense. The description of a critical practice must identify the grounds of normativity in use, construct a clear theory, if you will, or at least an image of the argumentation within reflective critical practices, and display how normative coherence as well as dialectical change evolves.

This reflects on Pinto's concern with the theory of inference. If the available theories of formal or informal logicians are contrasted with the needs of ongoing critical practice, it seems obvious to me, and perhaps to Pinto, that there is little or no hope of capturing the logic of argument. But I believe a theory (evolving and changing, of course) must be attempted. And for many years I have identified three components—entailment, relevance and truth—as the key desiderata for such a theory (Weinstein, 1994). As I have worked on the problem over the years I remain convinced that this requires a new style of meta-mathematics: a flexible and multidimensional field of models that permits of degrees of entailment, and indexes of relevance in terms of the impact of an inference on the field. Whether my work is a mere pipe-dream remains to be seen, but the absence of a theory of inference, if your limits are truth functional logic, argument diagrams, and elementary argument schemata with or without a few telling critical questions, says little or nothing about the possibility of a theory of inference that uses the full panoply of logical tools. It is interesting to contemplate whether in the rejection of formalism and the commitment of informal logicians to offering clear and useful tools for argument analysis to undergraduates, the theory of argument has unfortunately relinquished the sophisticated, flexible and normatively transparent meta-mathematical apparatus invented to understand mathematical argument. For these tools enable enormous structures to be constructed that offer transparent metaphors for logical practice. The informal logic and argumentation movements have identified the range of cognitive practices that must be addressed. Pinto has raised the stakes as to what such an address requires.

The movement to see critical practice as key also engages with Johnson's recent work on the dialectical tier (Johnson, 2000). The identification of the cognitive community sets the dialectical tier. But I see this activity as broader than Johnson does: it not only determines what objections need to be addressed for the argument to be taken seriously, but it also determines the substance of the argument itself. The dialectical tier defines what the rules of argument are, the sorts of reason put forward, and the standards of presentation and refutation. The dialectical tier is essential in argument production, including the development of hypotheses, and, of course their evaluation, within the context of argument (and theory) creation (See Magnani, 2001).

The concern with cognitive communities and critical practices supports Pinto's intuition that no theory is available. I see the issue somewhat differently. I certainly agree with Pinto, that a general theory of inference is lacking,

and therefore that attention must be paid to logical practice. But I see the failure of theory to be more contingent on the attempt to develop a single theory of inference, general in respect of all practices, or alternatively, a general theory adequate to some nebulous sense of reasoning as an everyday practice. That of course raises deep meta-epistemological issues. Does the normative core of the theory of inquiry need to be universal? Does it need to be univocal? If there is a fairly univocal core that is general in respect of much argument, what role does this core play in argument evaluation (and critical practices of various sorts)? What is the best theoretic model of the logical core? Is it best described informally, or does the complexity of practice point to the need for a powerful and flexible language such as meta-mathematics? From which critical tradition should exemplifications of critical adequacy be drawn? Formal logicians see mathematics as the practice against which the adequacy of the theory is to be ascertained. My hunch is that it is rather physical chemistry, since that permits much of the new sense of argumentation to be captured in rigorous ways (dialectical advance, modified entailments, and epistemic adequacy). Or is it against philosophical intuitions alone that our argument theories must be judged? What is the surrogate for necessity in formal logic, conceived in mathematical terms, that can serve as the bellwether for informal logic? Is it reasonableness? And when is one appropriately moved by reason?

Notes

[1] See Weinstein (forthcoming) for a discussion and a meta-mathematical structure that begins the task of grounding a general theory of entailment.

[2] I think of Douglas Walton's excellent books on these topics.

[3] Actually it is a very old sense. I see epistemologists from Plato to Kant as responding to their sense of the best methods for accounting for the most adequate knowledge of their day: geometry, and Newtonian mechanics, respectively.

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