INFORMAL LOGIC
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Response

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It is a bit intimidating to confront a barrage of diversified discussions of one's work, offering comments with critiques coming from many directions at once. But it is also encouraging, for we philosophers actually collaborate with one another by dialectical interaction, helping each other to develop and refine our ideas by pinpointing shortcomings in their earlier articulation. It is in this spirit that I write this reply. In every case I have learned from these discussions and critiques. Reserving the right to take various points under further advisement, I offer herewith some responses that seem in order to me at this time. First, however, I want to avail myself of this opportunity to tell my fellow contributors how pleased I am at these various tokens of their having taken my work so seriously and having thought about it to such productive effect.

A. Brown on Inconsistency

Bryson Brown's interesting and provocative deliberations regarding inconsistency and its rational accommodation invite the following remarks.

1. *Reductio ad Absurdum Reasoning*

Brown maintains that the Rescher-Brandom systematization of the logic of inconsistency is at odds with reasoning by *reductio ad absurdum*. This charge, however, is open to question. The traditional structure of *reductio* reasoning is as follows:

> There is a background of accepted premises: $P_1, P_2, \ldots, P_3$. Against this background we wish to demonstrate Q. We proceed as follows:
>
> (1) Assume: ~ Q.
>
> (2) Derive a contradiction.
>
> (3) Conclude that the premises at issue underwrite the consequence that Q.

However, given the Rescher-Brandom approach, we do not in this circumstance automatically get $P_1, P_2, \ldots, P_n \Rightarrow Q$ because in the system this would require, on technical grounds, an additional compatibility assumption regarding the P_i. Nevertheless, this technicality engenders no particular complication. For we do obtain $(P_1 \,\&\, P_2 \,\&\, \ldots \,\&\, P_n) \rightarrow Q$. Thus accommodating *reductio* simply requires that, in the context at issue, we treat a premiss set $P_1, P_2, \ldots, P_n$ as tantamount to the conjunction $P_1 \,\&\, P_2 \,\&\, \ldots \,\&\, P_n$. (Only in the infinite case would there be additional complications, and even these are superable.) The salient point is that in the Rescher-Brandom system the jobs that Brown wants to accomplish by using premiss sets can be accommodated instead by reconceptualizing such sets as conjunctions. As far as the logical theory of *reductio* reasoning is concerned, the cost is exactly zero.

2. *Limited Adjunction*

To say this, however, is not to detract from the main point of Brown's interesting discussion. For Brown is concerned to urge the interest and validity of the Schotch-Jennings approach to inconsistency on the basis of cell aggregation. And the interest and utility of this approach can stand on its own feet—it does not need to be supported at the expense of any supposed inadequacies in the Rescher-Brandom treatment of incon-

sistency. Quite to the contrary! As Brown correctly indicates, the Rescher-Brandom system with its consistency-limited adjunction rule, unproblematically permits—and indeed invites—supplementation by restricted adjunction principles such as those at work in the Schotch-Jennings approach.

3. Relative Absurdity

A difficulty hovers over Brown's approach to relative absurdity (in the middle of section III). He writes: "A sentence is absurd with respect to some premiss set if adding it to the set increases the set's [inconsistency] level." But we must here differentiate between the logical and the epistemological situation. In its logical setting, what Brown says is quite right—as far as it goes. But a problem arises through its focus on *particular* sentences. For as the cognate discussion of Duhem's thesis in inductive epistemology shows, it is not unproblematic to identify a single particular culprit when things go wrong in a situation of reasoning from a plurality of theses. In such cases, the absurdity is systemic: it lies in the logical tension between *all* the propositions at issue. Pinpointing the problem remains a point of difficulty.

Accordingly, when inconsistency arises from the addition of a premiss to a given set, the problem may lie with one of the sentences *already* admitted to that set of initially accepted premisses. The difficulty engendered by a newly added sentence may not betoken its own absurdity at all—it may do no more than bring to view an absurdity already present in that comfortably compatible initial set of premisses. The inconsistency engendered by the addition of a new member may bring to light a preexisting problem rather than evince the newcomer's absurdity.

B. Goodwin on Second-Order Distinctions

David Goodwin's instructive discussion of the role of second-order distinctions in the resolution of fallacies invites the following somewhat diverse reflections.

1. The Legitimation of Distinctions

Goodwin's emphasis on the role of higher-order distinctions (distinctions about distinctions) is constructively suggestive. In particular, it is clear that distinctions need to be legitimated, both as to their substances and as to their specific employment. Now as regards substance, distinctions can be real or spurious. They can manage to "carve nature by the joints"—as Plato already indicated—or they can fail in this regard and thus be inherently inappropriate. And as regards their employment in argumentation, distinctions can be either ad hoc or generally valid. Moreover, they can prove to be either effective or ineffective. Accordingly, we can bring suitable appraisal categories to bear in distinctions in such a way as to subject them to second-order evaluative distinction in the manner of real/spurious, and ad hoc/general, effective/ineffective, and the like. This matter of determining and delineating the *evaluative appraisal categories* for distinctions represents one of the most interesting potential roles for higher-order distinction, and it is clearly an issue that would repay the efforts of fuller scrutiny.

2. Distinctions and Enthymemes

Consider the (essentially true) statement:

(S) Spanish does not use *W* (Spanish words not contain this letter).

Nevertheless, certain words with *W* do indeed occur in Spanish (whisky, windsurfista). The difficulty is resolved through the distinction between ordinary, indigenous Spanish words and "loan words" based on terminology taken from other languages. This distinction manages to salvage the generalization (S) through the modification:

(S′) Indigenous Spanish words do not use *W*.

To implement *this* premiss in the context of subsuming any particular word, we

would need to introduce the additional (and usually enthymematic) premiss that the word at issue is an ordinary (indigenous) Spanish word. And as this example indicates, generalizations are often formulated in ways that tacitly presume that we are dealing with normal (ordinary, standard) cases, thenceforth proceeding on the standing presumption that cases can always be supposed to be ordinary ones in the absence of any specific indications to the contrary. It is this line of thought that prevents the argument

John is a human being

John has one head

from dismissal as a fallacy. For the argumentation at issue is in fact not fallacious, but simply short-hand for

John is a *normal* human being
[Normal human beings have one head]

John has one head

This valid argument salvages its problematic predecessor through the fact that "John is a human being" yields "John is a normal human being" as an immediate inference via the standing presumption that given cases are normal ones absent explicit indications to the contrary. On this basis, a variety of seemingly fallacious arguments just aren't. The distinction between *mere* and *normal* cases saves the day. And it does so via the second-order distinction between self-sufficient and enthymematic formulations of an argument.

3. *Distinctions in Philosophy*

As the preceding illustration would suggest, distinctions enable the philosopher to avert inconsistency not just by the brute negativism of thesis *rejection* but by the more subtle and constructive device of thesis *qualification*. For the crux of a distinction is not mere negation or denial, but the amendment of an untenable thesis into something positive that does the job better. By way of example, consider the following aporetic cluster:

(1) All events are caused.

(2) If an action issues from free choice, then it is causally unconstrained.

(3) Free will exists—people can and do make and act upon free choices.

Clearly one way to force an exit from inconsistency is to drop thesis (2). We might well, however, do this not by way of outright abandonment, but rather by speaking of the "causally unconstrained" only in Spinoza's manner of an *externally* originating causality. For consider the result of deploying a distinction that divides the second premise into two parts:

(2.1) Actions based on free choice are unconstrained by *external* causes.

(2.2) Actions based on free choice are unconstrained by *internal* causes.

Once (2) is so divided, the initial inconsistent triad (1)-(3) gives way to the quartet (1), (2.1), (2.2), (3). And we can clearly resolve *this* aporetic cluster by rejecting (2.2) while yet retaining (2.1)—thus in effect *replacing* (2) by a weakened version.

Antinomies can virtually always be resolved in this way; we can always "save the phenomena"—that is, retain the crucial core of our various beliefs in the face of apparent inconsistency—by introducing suitable distinctions and qualifications. When aporetic conflict breaks out, we can salvage our philosophical commitments by complicating them, revising them in the light of appropriate distinctions rather than abandoning them altogether. For the effect of imposing a distinction d on a concept C is to divide C into C_1 and C_2. And when this happens, a thesis in which C figures, $T=T(C)$, is split into the two distinct contentions, $T(C_1)$ and $T(C_2)$. And at this point we might abandon $T(C_1)$, and with it the *overall* thesis $T(C)$, while yet retaining $T(C_2)$, and with it a substantial *part* of $T(C)$. And so, when this thesis figures in an aporetic inconsistency, we may well break the chain of inconsistency by replacing it with one of its distinction-modified congeners.

The history of philosophy is shot through with distinctions introduced to avert aporetic difficulties. In Book I of Plato's *Republic*, for example, Socrates' interlocutor quickly falls into the inconsistency of maintaining:

(1) Rational people always pursue their own interests.

(2) Nothing that is in a person's interest can be disadvantageous to him.

(3) Even rational people sometimes do things that prove disadvantageous.

Confronting this apory, inconsistency can be averted by distinguishing between two senses of the "interests" of a person—namely what is *really* advantageous to him and what he merely *thinks* to be so; between *real* and *seeming* interests.

Philosophical distinctions are thus creative innovations. They do not elaborate preexistent ideas but introduce new ones. They not only provide a basis for understanding better something heretofore grasped less rigorously, they shift the discussion to a new level of sophistication and complexity. Thus to some extent they "change the subject." In this regard distinctions are like the conceptual innovations of science, that revise rather than explain prior ideas. Moreover, the resolution of antinomies through new distinctions is a matter of creative innovation whose outcome cannot be foreseen. New concepts and new theses come constantly to the fore.

In these contexts, the second-order distinction between (comparatively) crude and (comparatively) sophisticated argumentation plays a crucial role.

C. Siegel on Rationality

Harvey Siegel's challenging and illuminating discussion of the—as I see it "pragmatic"—validation of *rationality* (as presented in my 1988 book of that title), purports to find an inconsistency in my discussion. For, on the one hand, I say (1) that a "purely theoretical" validation of rationality is not possible, and that a cogent validation must incorporate some element of extra-theoretical, pragmatic appeal. But, on the other hand, I also say (2) that the argumentation at issue in the course of justificatory reasoning that I favor pivots on the consideration that the only sort of validation of rationality it makes sense to ask for is a *rational* validation. And this second point embodies a "purely theoretical" consideration from which any element of pragmatic deliberation is altogether absent—a circumstance which, to all appearances, stands in conflict with point (1).

And so far so good. If the situation at issue in point (2) were the whole story, then Siegel's objection would be well taken. But the whole story it is not.

For all that the "purely theoretical" argumentation at issue in the reasoning of point (2) shows, is that we should (and, in a sense, "must") ask for a rational validation of rationality *because we can do no better.* However, what it does not establish is that this sort of validation—the best that we can get—is good enough, that the reliance in reason is actually effective vis-à-vis the purposes for which it is instituted. (In theory, even the best available instrument can be unavailing.) And it is at just this position that the recourse to pragmatic efficacy issues into play in the overall line of justificatory reasoning that I espouse. Accordingly, it seems clear to me that—Siegel's reservations to the contrary notwithstanding—the pragmatic aspect of rationality's justification is not an irrelevant fifth wheel, but an important and indispensable part of the overall justificatory program of validating our reliance on cognitive rationality.

D. Walton on Plausible Reasoning

Doug Walton's informative discussion of plausible reasoning leads me to offer the

following comments:

1. *Plausibility for Inferential Rules*

The difficult of mixing the factor of the plausibility of premisses with that of the plausibility of inferential rules is greater than generally recognized. Suppose for the moment that we evaluate plausibilities over the range from 0 to 1. Clearly few rules can be less plausible than:

(R1) "From P, to infer Q" ($P \Rightarrow$ Q).

So let us set its plausibility at zero. (It will not affect matters to use a minuscule epsilon instead.) And let us further adopt the product rule of evaluation as endorsed by Walton:

plaus (conclusion) = (plaus (premiss) × plaus (rule))

Then note what happens when we infer the conclusion Q from the premise P via rule (R1):

plaus (Q) = plaus (P) × 0 = 0

And so we have it that plaus (Q) = 0 for arbitrary Q.

On the other hand, few rules can be more plausible than:

(R2) "From P, to infer Q v ~ Q" ($P \Rightarrow$ Q v ~ Q)

So let us set its plausibility at one. Now applying the product rule in the context of (R2) we would obtain:

plaus (Q v ~ Q) = plaus (P) × 1 = plaus P.

But since plaus (Q v ~ Q) must be supposed to be 1, we have plaus (P) = 1, for arbitrary P. On this basis we obtain an evident contradiction, a result that does not bode well for the given product rule. The painful lesson, it seems to me, is that we cannot assign plausibilities to rules independently of any reference to the propositions to which they are being applied.

2. *The Basketball Counterexample*

On the version of plausibility theory that I have proposed, the plausibility status of the conclusion of a deductively valid argument can be no weaker than that of the weakest premiss. Against this principle, Walton submits the following example:

Premiss 1: Jones is less than 5 feet tall

Premiss 2: Jones plays basketball for the Los Angeles Lakers

Conclusion: (P_1) & (P_2)

Walton argues: "There may be evidence that makes (P1) highly plausible and also other evidence that suggests that (P2) is highly plausible. But...the conclusion is not highly plausible; in fact, it is implausible." But this counter-argumentation has its problems. With conditional plausibility, as with conditioned probability, we proceed coherently only if we make our assessments holistically, relative to *the whole of the background information*, and not some selectively constituted disjointed parts of it. And if, relative to the *entire* body of evidence, the premisses (P1) and (P2) were *both*, severally and individually, highly plausible, then so would be the conclusion constituted by their conjunction: the body of evidence that substantiates them separately then also substantiates them jointly. (Compare p. 15 of *Plausible Reasoning*.) And so the objection at issue in the proposed counterexample does not stand.

3. *The Least Plausible Premiss Rule*

In his initial exposition of my systematization of plausibility rule in his section 1, Walton correctly states that its *least plausible premiss rule* (LPPR) stipulates that "when a group of mutually consistent propositions entails a particular proposition, then the latter proposition cannot be less plausible than the least plausible proposition of the original group." But when he criticizes the system in his section 3, Walton restates the rule as stipulating "that in a deductively rated argument, the conclusion must be [!] as plausible as the least plausible premiss." (Note the omission of "at least" at the ! indicated position.) It is clear that in this version the rule is unac-

ceptable. After all, $P \Rightarrow P \vee Q$ is a valid deductive inference, so that given a low-plausibility premiss R we can infer $R \vee \sim R$ via this version of the rule. And yet we would hardly want to say that the plausibility of this conclusion *equals* that of R. (Because of this slip-up, Walton's critique that my plausibility rules are counter-indicated by the situation that prevails in the important case of convergent arguments also misses its target.)

4. *Convergent Arguments*

Walton's emphasis on the importance of convergent arguments seems to me altogether right-minded. There are two profoundly different approaches to the cognitive enterprise which, for want of better choices, might be called the *ampliative* and the *reductive*, respectively.

The ampliative strategy searches for highly secure propositions that are acceptable as "true beyond reasonable doubt." Given such a carefully circumscribed and tightly controlled starter-set of propositions, one proceeds to move outwards ampliatively by making inferences from this secure starter set. Here we proceed expansively, by moving outward from the secure home base of an entirely unproblematic core.

The reductive strategy, however, proceeds in exactly the opposite direction. It begins in a quest not for unproblematically acceptable truths, but for well-qualified candidates or prospects for truth. At the outset one does not require contentions that are certain and altogether qualified for recognition as genuine truths, but proposition that are no more than plausible, well spoken-for, well-grounded candidates for endorsement. Of course, not all of these promising truth-candidates are endorsed or accepted as true. We cannot simply adopt the whole lot, because they are competing—mutually contradictory. What we have to do is to impose a delimiting (and consistency-restoring) screening-out that separates the sheep from the goats until we are left with something that merits endorsement. And here we proceed by way of diminution or compression, seeing that the reductive approach proceeds by *narrowing* that over-ample range of plausible prospects for endorsement.

While the paradigm instrument of ampliative reasoning is *deductive derivation*, the paradigm method of reductive reasoning is *dialectical argumentation*. To effect the necessary reductions we do not proceed via a single deductive chain, but through backing and filling along complex cycles which criss-cross over the same ground from different angles of approach in their efforts to identify weak spots. The object of the exercise is to determine how well enmeshed a thesis is in the complex fabric of diverse and potentially discordant and competing contentions. We are now looking for the best candidates among competing alternatives—that resolution for which, on balance, the strongest overall case can be made out. It is not "the uniquely correct answer," but "the most defensible position" that we seek in plausible reasoning.

On this basis, then, I want to add my emphatic endorsement to Walton's stress on the utility of convergent arguments.

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