The Closure Debate, The Meaning of 'Implication', and Epistemology as Spectator-activity<sup>1</sup>

I. A cottage industry in meta-epistemology has arisen recently devoted to producing, defending, and attacking versions of the meta-epistemological claim that knowledge is closed under known entailment. Very roughly, closure is the thesis that *if a subject knows P and knows (P implies Q) then the subject knows Q*. This very basic idea, refined and qualified in important ways, has seemed to some virtually self-evidently true (e.g., Hawthorne, Williamson ) and to others false (e.g., Dretske) or at least true under only a very limited set of circumstances (e.g., Frances, Black). Let us call those who endorse even qualified versions of the thesis 'Closers' and those who deny *all* versions of the thesis 'Deniers'.

The (seemingly) undeniable fact that we can expand our knowledge by inference (and in particular by deductive inference) motivates many Closers. In addition, some Closers (Hawthorne *via* Kripke) are worried that *denying* closure is tantamount to denying the truth of the following conditional: *if I know (A and B) then I know A*. Tim Black articulates a thoughtful version of a closure principle:

**Black Closure (Single Source Closure)**: SSC\*: If S knows via K that p1, p2, ..., pn, and if S knows via K+ that p1, p2, ..., pn entails q, and if K or K+ will allow S reasonably to believe that q, then S knows that q, where if K is a set of two belief-producing mechanisms, neither member of the set acts only to account for the qualitative states associated with the other member of the set."<sup>2</sup>

Deniers on the other hand typically worry that **not** denying closure (of some sort) will lead to Easy Knowledge (Cohen) or will involve endorsing Academic Skepticism, for they fear that if (with suitable qualification as above) I can know that I have parents and I can know that I have parents entails I am not a brain in a vat, then I know (too easily) that I am not a brain in a vat. (The problem of Academic Skepticism arises from a Moorean transformation of this same inference.) This is far from the whole story, but it gives a flavor of the sorts of issues in the air surrounding knowledge-closure discussions.

At the outset, please allow me to introduce a piece of technical vocabulary by stipulating that the expression 'Implication Relation' or 'IR' is to be used as a generic term for *any* conditional operator that occurs in any indicative conditional statement, including *but not limited to* those we typically express as follows:  $(P \Rightarrow Q)$ ;  $(P \Rightarrow Q)$ ;  $(P \Rightarrow Q)$ ;  $(P \Rightarrow Q)$ ;  $(P \models Q)$ ; (if P then Q); (P only if Q). Since none of the closure principles of which I (at least) know includes subjunctive, counter-factual, or any other kind of conditional, focusing on the indicative conditional will help narrow the scope of this enterprise.

What is striking about the closure debate and what has not yet been pointed out (to the best of my II. knowledge), is that both Closers and Deniers share a common set of assumptions that derive from their unquestioned acceptance of our standard classical picture of sentential (and predicate) logic as extensional – in particular they accept that (whatever its specific interpretation) the IR that occurs in closure principles is to be extensionally defined. This understanding of the IR is part of an approach to logic that regards it as at bottom a truth-preserving enterprise in which the truth or falsity of molecular statements depends entirely (in combinatoric fashion) on the truth or falsity of their atomic constituents. The atomic constituents are propositional functions (open sentences) of the form "x is an R" or "x is P" whose truth or falsity depends in turn on the assignment of individual constants to variables, properties or sets to predicate-terms, and propositions to sentential letters. The rules of logic are then merely substitution and transformation rules (or, on a bivalent<sup>3</sup> model-theoretic account, satisfaction conditions) that hold fixed logical forms. And the meanings of the logical constants which function to articulate the relationships among the atomic constituents either are or are defined in terms of our standard extensionally construed "not" and "or" operators. (Russell regarded these as primitives in the system of Principia from which this general picture of logic largely derives.) Whether defined as strict implication or left open to interpretation as material implication (or some other kind of conditional), the IR that is an essential element in all of the closure principles defended or rejected above is regarded as an element in the standard logical scheme.

<sup>&</sup>lt;sup>1</sup> The phrase inference as "spectator-activity" is Ryle's. (Tarner Lectures)

<sup>&</sup>lt;sup>2</sup> Black, Tim, *Phil Quarterly* (2008).

<sup>&</sup>lt;sup>3</sup> The qualification "bivalent" is meant to signal awareness that on some purely model-theoretic accounts (e.g. Etchemendy's, Dummett's) it is the features of the model that determine the meanings of the logical constants (and in turn whether a bivalent logic is appropriate) and not the other way around.

But once we fix on this standard picture of IR as an operator that occurs in statements whose truth value is both determined and preserved by various substitutions and transformations, the job for Closers *and* Deniers becomes, inevitably, to drum up more and more features of the standard *conditions* in which *-- given* the above understanding of IR -- it would be legitimate (or not) to assert that knowledge is closed under known implication. For on this view of closure principles we do not have to worry about the *content* or the *actual* relations (inferential, semantic, or otherwise) among the particular propositions (or terms) that are elements in any given *instantiation* of the principle. That is, the particular "pieces" of knowledge – the actual, contentful propositions – drop out of the analysis and we are left with a "Closure Schema" that is supposed to be satisfiable no matter what the content of the propositions involved happens to be. This is not problematic according to Closers and Deniers, since they are (*they think*) working in a "free-standing" meta-epistemological discourse. But occupying this position is only made to see possible by the uncritical acceptance of the nature and role of classical, extensional logic.

More specifically, once they have accepted an extensional account of IR, their focus is exclusively on specifying the conditions that license (or would license) substitutions and transformations that *satisfy* or not one or another closure *schema* (e.g., specifying the relevance of a given belief forming mechanism, the inferential competency of epistemic subjects, etc.). In so doing, however, they fail to answer the central question; namely: is *what we know* closed under entailment (and what does this mean). The central questions (such as: what sorts of rules or principles are implicit in our *actual* knowledge-practices attention to which might or might not lead us to accept an extensional definition of IR and might or might not lead us to agree with a categorical claim that knowledge is closed under known entailment?) are left hanging.

III. There is, of course, another way. Rather than supposing *at the outset* that the framework of classical extensional logic is sufficient to express (and appropriate for expressing) putative knowledge-closure conditions, we might, in good Sellarsian fashion, begin with the (putatively) known propositions themselves and consider whether the relationships in which they stand are such that a uniform principle of closure based on classical logic can adequately capture them. It is true, to a certain extent, that the current practice of entertaining closure principles *is* an attempt to limn the bounds of knowledge as is evident in the knoty formulations above. But it seems false to say that in articulating, revising, and defending or rejecting rules or principles of knowledge-closure both Closers and Deniers are attempting to make explicit a rule or set of rules that is implicit in and exemplified by our *actual* knowledge practices (and in particular to make evident the discursive commitments undertaken by subjects embedded in the knowledge enterprise). But this is the question that seems in need of an answer. And approaching the question in the manner suggested above could yield a very different sort of answer.

For example, an approach to the question of knowledge-closure that departs from the propositions that we do know could yield a contrasting view of the "implication relation" involved in closure statements and allow an IR that makes room for semantic and discursive (if not deontic) considerations. Rather than being dependent for their truth-value on the truth values of their atomic components, molecular statements that include such an Implication Relation would depend for their truth, falsity, or *lack of truth <u>value</u>*, on considerations like the following: how are the meanings of the terms of the component propositions related? (A special case of this would involve examining the idea that the descriptive meanings of the terms are *articulated by* such Implication Relation Statements); in asserting an IR statement has the agent undertaken the appropriate discursive commitments and what are those discursive commitments? In short, the answer to the question of whether some principle of knowledge closure is defensible or whether none is or whether only some are (and what such principles might be) will arise at the end of inquiry and will (arguably) turn out to be a much more complicated affair than the (already complicated) closure debate would have it.

The point is thus both methodological and conceptual: by presupposing a classical extensional framework both Closers and Deniers have reversed the order of analysis concerning closure. In addition, assuming the classical framework leads both Closers and Deniers to occupy (or think they occupy) a conceptual position from which they can assess knowledge closure without making use of it – they believe they are engaged in Ryle's "spectator-activity." But this isn't possible (in any interesting sense) and, so it seems, our only option is to adopt an approach to the closure question that departs from *actual* contentful propositions, and on this sort of account it is not obvious that the presuppositions of classical extensional logic will be appropriate.