Between Saying and Doing: Towards an Analytic Pragmatism

Lecture Two: Elaborating Abilities: The Expressive Role of Logic

Section 1: Automata as Algorithmically Elaborating Abilities

Automata are not just syntactic engines (symbol manipulators). More generally, they should be thought of as putting together primitive abilities so they add up to (are elaborated into) more complex ones. They implement PP-sufficiency relations: the kind of relation that obtains when the capacity to engage in one sort of practice or exercise one sort of ability is in principle sufficient for the capacity to engage in other practices, or exercise other abilities.

Section 2: Transducing Automata

Transducing automata generalize the primitive reading-and-writing abilities of finite state automata to include discriminating stimuli of any kind, on the input side, and differentially responding in any way, on the output side. Single-state transducing automata (SSTAs) can be specified by state-tables that are just sets of pairs \(<S,R>\) of stimuli and responses they would elicit. They are just sets of reliable differential responsive dispositions. They can execute straight-schedule algorithms, or lists of commands. Finite-state transducing automata (FSTAs) can not only respond differentially to stimuli by producing performances from its responsive repertoire, but can respond differentially by changing state. So it can combine its primitive abilities according to conditional branched-schedule algorithms.

A Finite-State Transducing Automaton

The advance from behaviorism to functionalism in the philosophy of mind corresponds to the move from a single-state to a multi-state model.
Idealizing assumptions implicit in the automaton-theoretic metavocabulary for specifying abilities that implement the algorithmic PP-sufficiency of some primitive abilities for some complex ability:

**Response Substitution**: Any stimulus to which a system can respond differentially can be connected to any response it is capable of differentially producing.

**Arbitrary State Formation**: The stimulus-response connections of which a system is capable can be arbitrarily combined into *states*. If a system can respond to stimuli of kind $S_i$ with responses of kind $R_j$ and to stimuli of kind $S_k$ with responses of kind $R_l$, and if $S_i$ and $S_k$ are compatible and so are $R_j$ and $R_l$ then it can be in a state in which it is disposed to respond to $S_i$ with $R_j$ and to $S_k$ with $R_l$.

**Arbitrary State Permutation**: States can be arbitrarily formed into state *tables.*

**Section 3: Autonomous Discursive Practices, Asserting, and Inferring**

**MUA Terminology**
Q: Are there any practical abilities that are *universally* PV-necessary? This is a way of asking what sorts of *doings* deserve to count as *sayings*.
A: Every *autonomous discursive practice* must include practices of *asserting* and *inferring* (which mutually presuppose one another).

**Section 4: Introducing Conditionals**

Conditionals are both *elaborated* from and *explicative* of inferential practices.

A “universal LX-vocabulary” is distinguished by three characteristics:

i) being deployed by a set of practices-or-abilities that are algorithmically elaborated from

ii) practices-or-abilities that are PV-necessary for *every* autonomous vocabulary (and hence every vocabulary whatsoever) and that

iii) suffice to specify explicitly those PV-necessary practices-or-abilities.
Section 5: Characterizing Logic: the Logicist’s Dilemma

The “logicist’s dilemma” arises from the tension between two requirements:

- Semantic Transparency: The auxiliary vocabulary employed by the philosophical analyst should not add anything distinctive of its own. For any substantive content that it contributes impugns the claim that what can be said in the terms of the target vocabulary is somehow present already in the base vocabulary or at least is intelligible entirely in terms of what that vocabulary expresses.
- Analytic Efficacy: Using the auxiliary vocabulary must help in the process of establishing the desired semantic relation between vocabularies—whether that is definability, translatability, reducibility, supervenience, or whatever.

Resolution: Being an LX-vocabulary with respect to every autonomous vocabulary is necessary and sufficient for playing the privileged role logical vocabulary is called on to play in the classical project of semantic analysis.

- The fact that practices sufficient to deploy logical vocabulary can be algorithmically elaborated from practices necessary to deploy any autonomous vocabulary vindicates the semantic transparency of logical vocabulary. The capacity to deploy logical vocabulary (or any universally LX-vocabulary) is in this sense always already implicit in the capacity to deploy any vocabulary at all that might be chosen to serve as the base vocabulary of a semantic analysis or explication of any target vocabulary.
- The fact that logical vocabulary makes explicit features of practices PV-necessary to deploy any autonomous vocabulary shows why and how logical vocabulary satisfies the condition of analytic efficacy. For the task for which logical vocabulary must prove itself efficacious is an expressive task: to show how to say in a different vocabulary what can already be said using the target vocabulary. Logical vocabulary must make it possible to say something one could not say without it.

The semantic relation between LX-vocabularies and the vocabularies from which they are elaborated is an essentially pragmatically mediated one. If that relation really is the one that explains and justifies the utility of logical vocabulary in semantic analysis, then all elaboration and explication, including semantic elaboration and explication, is implicitly pragmatically mediated. For in order to explain the legitimacy of logical elaboration of one vocabulary into another, we must appeal to the pragmatic elaboration of one set of abilities into another. If that is right, then supplementing the traditional philosophical analytical concern with relations between the meanings expressed by different kinds of vocabulary by worrying also about the relations between those meanings and the use of those vocabularies in virtue of which they express those meanings—as I recommended in my first lecture—is not so much extending the classical project of analysis as unpacking it, to reveal a pragmatic structure that turns out to have been implicit in the semantic project all along. For the conclusion I have been arguing for is that it is because some vocabularies are universal pragmatically elaborated and explicating vocabularies that semantic analysis is possible at all. That strong claim is a central element of a further kind of pragmatism about semantic analysis: what I will call analytic pragmatism, whose principal tool is meaning-use analysis.