CHAPTER 7

PEOPLE ARE NOT COMPUTERS
(Most) Thought Processes are Not Computational Procedures

As a professional philosopher, of course, I have become accustomed to the truth that no position is so absurd that some philosopher has not held it. As a human being, of course, I have also had to personally cope with experiences in life that have involved formal systems and syntax processing. Sometimes our professional activities become detached from our life experiences to a degree that might astonish empirical scientists. Our enthusiasm for a theoretical position may even appear to be virtually independent of our experiences in life, which, were they only taken seriously, might completely undermine what we take as our best theories. The computational conception that dominates what is known as “cognitive science” provides a remarkable illustration of this point. Even if some of our thought processes are computational, most of them are not, which makes our best theory either trivial or false. We need something better.

A FEW OF (MY) LIFE’S EXPERIENCES

As a naive student in the fifth grade at La Habra Heights Elementary School more years ago than I care to imagine, my teacher threatened to keep me back from entering the sixth grade if I did not master my multiplication tables. Of course, they were not really “my” multiplication tables, since they belonged to everyone else at least as much at they did to me—more, actually, if my teacher was to be believed. Indeed, that was his point, namely: that I had not memorized them and therefore could not recite them by heart. Over the summer, I dutifully fulfilled my obligations as a student and as the offspring of my parents, who would have been acutely disappointed if their young son had failed the fifth grade. I memorized the tables—ones through nines—and when classes resumed, I sought him out to
display my newly-acquired competence. He was, alas, voluntarily or involuntarily, no longer there. Which it was I never knew.

Many years later, as a student of philosophy at Princeton University, I had to complete one semester of symbolic logic. It was a course with two lectures and one review class a week. The professor was Carl G. Hempel and what he had to say—about barbers who shaved all and only those who did not shave themselves, for example—was fascinating and enjoyable. The class reviews, which were conducted by Paul Benacerraf, by contrast, were not. When it came to the construction and evaluation of proofs, I was (almost) completely lost. If there was ever a course I wanted to end, this was it. As luck had it, by the day of the final, I had been admitted to the infirmary with some (no doubt, minor) malady. But the idea of having logic hang over me for another semester was so dreadful that, as the appointed time drew near, I simply got dressed and took the final without checking out. I passed, but not by much.

Little did I then suspect that, as one of life's ironies, it would fall to me to instruct generations of eager young minds in the subtleties of symbolic logic. I explained to them things I, as an undergraduate, had not understood about sentential and predicate logic, such as that they were deliberately simplified models that are intended to capture only some, but not all, of the properties of ordinary language and everyday reasoning. The rules of inference for '... and ___' supplied a useful illustration, insofar as the temporal dimension that commonly accompanies the meaning of that notion was absent from the rules at our disposal. The conjunction, "Mary got married and had a baby", may not mean the same thing as the conjunction, "Mary had a baby and got married", in ordinary conversation, but it would be treated as an instance of 'p & q' within the context of our calculus, where 'p & q' and 'q & p' were logically equivalent.

The material conditional, of course, posed more complex problems. While I was inclined to suggest that it was something akin to a lowest common denominator among various kinds of 'if ... then ___' sentences that are encountered in daily life, I emphasized that it was not meant to capture the content of subjunctive, counterfactual or causal conditionals that may occur in other contexts, especially because what is described by the antecedent and what is described by the consequent of conditionals of these kinds are customarily related by a connection of some kind—whether definitional, analytical, or nomological—such that the mere falsity of the antecedent '... ' does not render sentences of any of those kinds true on that account alone, contrary to the material conditional. Indeed, it is better to view sentences of this kind as abbreviations for disjunctions of the form 'either not-... or ___' ('either not-p or q') to avoid confusion.