

Concluding Remarks

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I would like to take this opportunity to address the most important aspects of this discussion by way of these concluding remarks. First, I will address directly the comments made by Mr. Thomas Eudaly regarding the contents of my paper. Second, I will address Searle's use of the "syntax/semantics" distinction as a way of presenting part of his position, since his use of this relationship generated much controversy in our discussion. Finally, I will address Searle's distinction between "intrinsic intentionality" and "observer-relative intentionality" since this generated more controversy than any other point made in my paper.

As to Mr. Eudaly's comments, I think we must accept his point concerning the validity of the "causal argument" as presented in my paper. Clearly, one cannot deduce necessary conditions from sufficient conditions. I am, however, prepared to accept as the new conclusion to the "causal argument" the following:

So, 5. B will have the same intentional states as a human brain if its component parts interact electrically in a way analogous to the way the parts of the human brain do;

since I think that such a modified conclusion is not as damaging to the "causal argument" as Mr. Eudaly's comments would seem to suggest.

Mr. Eudaly claims that Searle's positive and negative theses are entirely separate. With this claim I must disagree, not only because it is crucial to the claims of my paper, but because it exposes a misunderstanding of the current debate in cognitive science. Before addressing this specific claim, I would like to take another look at cognitive science. Both Searle and the proponents of strong AI accept certain claims as true and then contest what can be derived or deduced from these basic claims. In his comments, Mr. Eudaly has chosen to question these basic claims, something that should perhaps be done, but something I have chosen not to do in order to bring to the forefront the

nature of the debate between Searle and strong AI. For example, the following is a simplified version of Searle's argument against strong AI.

1. If X is a digital computer, then X can only run programs.
2. If X can only run digital programs, then X cannot produce intentional states (since nothing can produce intentional states merely in virtue of its running a program).
3. X is a digital computer (as described by strong AI).

So, 4. X cannot produce intentional states.

In his comments Mr. Eudaly states "[f]rom the fact that digital computers don't think in virtue of running programs, we cannot infer that digital computers don't think, let alone infer that only things with the causal powers of the brain can think." (p. 213) It should be clear that in making his claim, Mr. Eudaly is calling into question the first premise of the above argument, a premise that both Searle and his opponents take for granted. Thus, Mr. Eudaly's comments, although they may have a point, go far beyond the scope of both Searle's work and mine, and question the legitimacy of cognitive science itself. Furthermore, although it is indeed logically possible that a computer could begin to produce intentional states independent of its ability to run programs, both Searle and his opponents are concerned only with what digital computers can, in fact, do. In this case, Mr. Eudaly has ventured into the realm of computer theory and questioned the claims made by experts in this field with respect to what computers can and cannot do. In these various cases, Searle and his opponents are concerned only with what is actually achievable now, according to computer theory, not with what is logically possible. Thus, I think that Mr. Eudaly's comments have not addressed the debate at hand but, rather, have called into question whether such a debate is possible.

As to Mr. Eudaly's specific claim that Searle's positive and negative theses are entirely separate, I have said I must disagree. Insofar as there is any agreement as to the available theses, Searle is merely proposing that we accept the only other "alternative" thesis, having disposed of strong AI. That is, there are only two available theses, and if one is refuted, the other must be defended. If we borrow terminology from Ned Block ("Mental Images and Cognitive Science") we can say that there are two positions to be held, descriptonalism and pictorialism. The former view claims that all mental images and other mental

processes represent sententially and this allows us to create programs that re-create these states, since computer programs also represent sententially. The latter view claims that mental images represent pictorially, where 'pictorially' is used in a technical sense to mean that certain brain states represent because certain relations in that brain state are analogous to relations that obtain in what is being represented. I think Searle's "causal powers of the brain" position is quite similar to the view Block labels "pictorialism." In any case, the point here is that Searle is analyzing and criticizing the current claims of cognitive science. To do so he must operate within the basic strictures of that science. For Mr. Eudaly to propose that Searle's two positions are totally unrelated is to again call into question the notion of cognitive science itself. This is not what Searle, nor I, want to do. And since Mr. Eudaly seems to accept Searle's negative thesis, he has thereby accepted some of the basic tenets of cognitive science and I do not, therefore, find his comments the source of great concern, since they do not seem to address the debate at hand.

During this discussion it has been suggested that Searle's use of the "syntax without semantics" distinction is both confused and confusing. I think that this complaint is unwarranted insofar as it is being given too much import. Searle's use of this phrase is intended to do no more than draw our attention to the fact that, borrowing Kant's terms, a computer will always have "form" but will never have "matter" or content. To claim that Searle is trying to do anything more with this phrase is to find more in it than is actually being claimed. The point is simply this, no matter how much more information we give the computer in the form of programs (syntax), the amount it will know remains the same, namely, zero, because we cannot give it any referents (semantics) to which it can be said to apply its information.

Finally, there has been much heated debate about the legitimacy of Searle's distinction between "intrinsic" and "observer-relative" intentionality. The debate has centered on this thesis and its epistemological implications. That is, according to Searle, how will we ever know that something other than each individual (which knows whether it has intrinsic intentionality) has this "intrinsic" intentionality? Many have found Searle's answer unsatisfactory. Searle's answer is, of course, that we must disassemble the entity in question, or perform some other empirical investigation, in order to discern whether it has causal powers like those of the human brain. In other words, if I were to observe one of you, the audience, in actions and behaviors indistinguishable from other human beings (thereby passing the Turing test) and I were to then discover, upon opening you up, that you were filled

with sand and operated by extra-terrestrials, I would question whether you possessed intentional states. If we do not accept Searle's empirically oriented thesis, then we are left with nothing but the Turing test, a test that could accept a sophisticated sand bag as having intentionality.

I think that the objections raised to Searle's thesis of "intrinsic" intentionality are all based on a notion of knowledge that is quite strong, stronger than I think we can accept. Without offering a treatise on epistemology, I would like to suggest that even in our everyday life, we make inferences based on experience and behaviour that we accept as correct, but we could always be mistaken. I have good reasons to believe that everyone in this room is capable of and does possess intentionality. In fact, I probably have some of the strongest reasons for accepting this, based on my past experiences and your behavior. However, I could be mistaken about one or all of you and with a test like the Turing test that depends only on your overt behavior, I could never hope to expose which one of you is the remote-controlled sand bag. Only if we accept an empirical thesis of the sort proposed by Searle, do we have a test that will not admit what should not be admitted to the class of "things with intentional states."

In conclusion, I think that although Searle's position stands in need of further clarification, it stands nonetheless. Mr. Eudaly's comments seem pointed at the larger question of "Is cognitive science in any form possible?" In this case, Mr. Eudaly is obliged to offer us an alternative view to those offered in this discussion, as well as show us how he can accept certain basic claims of cognitive science while rejecting others. It seems that he has done neither. Certainly there are many questions yet to be answered about intentionality, artificial intelligence, and the causal powers of the brain, but this discussion has been a first step in seeking such answers.