The Sense of ‘Thinking’

Reply to Rapaport’s Comments

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It will be found that the great majority, given the premiss that thought is not distinct from corporeal motion, take a much more rational line and maintain that thought is the same in the brutes as in us, since they observe all sorts of corporeal motions in them, just as in us. And they will add that “the difference, which is merely one of degree, does not imply any essential difference”; from this they will be quite justified in concluding that, although there may be a smaller degree of reason in the beasts than there is in us, the beasts possess minds which are of exactly the same type as ours. (Descartes 1642: 288–289.)

1. Clarifications and Issues

I begin with several clarifications. By ‘thinking’, I mean having (some) mental properties: perceptual properties (e.g., seeing, hearing, detecting), cognitive properties (e.g., knowing, believing, calculating), conative properties (e.g., wanting, needing, seeking), etc. ‘Calculate’, in the context of this argument (Hauser 1993), means doing arithmetic: adding, subtracting, multiplying, dividing, determining percentages, and extracting square roots; Cal’s apparent abilities. The major premise, ‘Calculating is thinking’, is meant to assert that whatever calculates thinks, not vice versa. My cat, Mary Jane, for instance, certainly knows where her food bowl is and often wants to go out; but M.J. can’t add, subtract, multiply, or divide.

This last remark broaches related questions which seem the central points of contention between Rapaport (1993) and me: (1) whether the argument I present shows that Cal thinks in a philosophically interesting sense; and (2) whether there is a distinction of meaning or of sense between what Rapaport calls the “minimal” and “maximal” senses of ‘thinking’. In this second connection, I also speak to Rapaport’s worries about “Cal Jr. [who] can only add (but not subtract, multiply, or divide),” “MiniCal [who] can only add 2 and 3,” and “MicroCal . . . a piece of cardboard with ‘2 + 3 =’ on one side and ‘5’ on the other” (Rapaport 1993, Sect. 8), etc.; to whether we need to distinguish (or would be helped by distinguishing) different (maximal and minimal) senses of ‘thinking’ to avoid having to say (presumably absurdly) that not only Cal, but MicroCal or even “NanoCal, a piece of paper with ‘2 + 3 = 5’ inscribed on it” (Rapaport 1993, Sect. 8) think in the same sense as you or I.
2. The Philosophical Interest of Cal’s Claim to Be Thinking

With respect to the first question, I note that Searle and Dretske both explicitly deny that pocket calculators really calculate – that they really add, subtract, multiply, or divide – or can really (i.e., literally and truly) be said to have any mental abilities whatever. Both deny that Cal thinks even in the “minimal” sense of having some (even if just one) mental ability. Descartes would also deny that Cal calculates or has any mental abilities whatever (that Cal thinks, even in a “minimal sense”). Descartes, of course, would also deny that my cat has any mental abilities whatever (that she thinks, even in a “minimal sense”).

Rapaport wonders, “On what basis could one possibly deny that Cal was calculating?” (Sect. 6). Dretske (1985) and Searle (1980b) would say, “Cal lacks intrinsic intentionality” (the intentionality objection). Descartes, if he were to put it in Rapaport’s terms, might say, “only maximal thinking is real thinking, so piecemeal thought-like abilities, such as Cal’s so-called ‘calculating’ and M.J.’s so-called ‘desire to go out’ are not really thinking (not real modes of thought) at all.” I share Rapaport’s amazement that anyone would deny, with Searle and Dretske, that calculators calculate – I find it as amazing as Descartes’s denial that cats, e.g., really see and want things. (Descartes would say my cat doesn’t really literally see and want things; it’s just mindless mechanical as-if seeing and wanting, just as Searle says that what Cal does is just unconscious, mechanical/syntactical “as-if” calculating.) I believe opponents of AI are driven to such lengths to save the thesis that machines don’t think by the difficulty in making out any such distinction of meaning between “maximal thinking” and “minimal thinking” as Rapaport tries to make out.

3. Unambiguous ‘Thinking’

I turn, then, to Rapaport’s attempt to make out such a “maximal sense” of ‘thinking’ – a sense he roughly identifies with thinking to a degree that suffices, or with having a sufficient number and range of mental abilities, to enable you to pass Turing’s Test. And the first thing to note is that if passing Turing’s Test is the criterion of thinking in the same (maximal) sense as you and I, then neither cats, nor dogs, nor chimps, nor porpoises nor any other infrahuman animal thinks in the same sense humans do. So if the question at issue is whether Cal belongs to the “club” of things with minds, along with us, and if you think this “club” includes monkeys and dogs (Searle 1980a: 421) and, perhaps, grasshoppers and fleas (Searle 1990a: 587), then the Turing Test criterion (and likewise, perhaps, any other holistic criterion, or unity criterion) is going to rule out Cal at the cost of ruling out other things (e.g., cats) we may want to include. Perhaps this is why Dretske and Searle appeal to intentionality and not unity to rule out Cal; and Descartes, who does appeal to the unity of minds or universality of mental capability, takes this holistic turn, among other things, to exclude cats (whales, monkeys, clams, sponges, etc.) from the “club”.