It's All Done With Mirrors: A New Argument That Strong AI is Impossible

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The *strong thesis of artificial intelligence*, aka *strong AI*, is the two-part thesis which says (i) that rational human minded animal intelligence can be explanatorily and ontologically reduced to Turing-computable algorithms and the operations of digital computers (aka *the thesis of formal mechanism, as it's applied to rational human minded animal intelligence*), and (ii) that it's technologically possible to build a digital computer that's an exact counterpart of rational human intelligence, such that this machine not only exactly reproduces (aka simulates) all the actual performances of rational human intelligence, but also outperforms it (aka *the counterpart thesis*) (see, e.g., Block, 1980: part 3; Kim, 2011: ch. 6). If strong AI is true, then, at the very least, necessarily, *some robot must be able to do anything that any ordinary rational human minded animal can do*.

But, something that any ordinary rational human minded animal can do is immediately tell its left side from its right side[1] by means of an essentially embodied, essentially non-conceptual, pre-reflective, proprioceptive, desiderative consciousness—poised for spontaneously initiating and guiding the performance of intentional body movements—of its own living animal body (Hanna and Maiese, 2009; Hanna, 2015: esp. ch. 2; 2020). Now, since by definition a robot is a machine and not a living animal, then it can't have a living animal body. So no robot, no matter how sophisticated that robot is, can immediately tell its left side from its right side by means of an essentially embodied, essentially non-conceptual, pre-reflective, proprioceptive, desiderative consciousness of its own living animal body. Therefore, strong AI is impossible. **QED**

Do you doubt the soundness of that argument? Then here's a thought-experimental verification of it.

1. Bring an ordinary rational human minded animal—call him "Bob"—into a room, and then place him in front of the mirror in a comfortable reclining chair, with a pleasant-tasting, relaxing drink to sip on, tell him that when he wakes up his wife will

[1] This doesn't imply that *every* rational human minded animal can do this, but rather only that all *ordinary* ones can: in fact, some *extra*ordinary people, perhaps as many as 15%, have trouble immediately discriminating between their left and right sides (Oakes, 2023). In the course of my argument, we'll discover that even the world's most sophisticated robot is no better than these extraordinary people at discriminating between its left and right side.

calmly ask him to perform a simple hand movement, which he agrees to do, then give him an interesting book to read until he's tired, after which he'll turn off the lights himself, and then wait until Bob falls asleep in the chair.

2. While Bob is asleep, quietly pull his chair in front of a wall-to-wall, ceiling-to-floor mirror hidden behind a curtain at one end of the room and open the curtain.

3. In order to awaken Bob, turn on a spotlight from behind and above him that illuminates only the mirror and at the same time ask him, using the calm voice of his wife, to please raise his left hand.

4. Even though Bob is temporarily visually disoriented due to his being suddenly awakened and to the light being turned on in a dark room, and even though all he can see is his own mirror image, i.e., a left←→right reversed, aka enantiomorphic, image of his own body sitting in the chair, nevertheless he immediately raises his left hand.

5. Consider, now, the world's most sophisticated robot counterpart to Bob—call it "Robobob." From the outside, Robobob looks identical to Bob; and it behaves similarly enough to Bob to fool anyone, including his wife; but because Robobob is in fact a digital computer, it navigates the world by means of a internal digital representation system connected to onboard sensors, from which its executive control module sends commands to its action module.

6. Bring Robobob into the same room as before, and then place it in the same comfortable reclining chair, with the same pleasant-tasting, relaxing drink to sip on, tell "him" that when "he" wakes up "his" wife will calmly ask "him" to perform a simple hand movement, which "he" agrees to do, then give "him" an interesting book to "read" until "he" is "tired," after which "he" will turn off the lights "him"self, and then wait until Robobob goes into sleep mode in the chair.

7. While Robobob is in sleep mode, quietly pull its chair in front of a wall-to-wall, ceiling-to-floor mirror hidden behind a curtain at one end of the room and open the curtain, and *then* quietly reconfigure Robobob's internal digital representation system so that it produces a mirror-reversed, i.e., left←→right reversed, aka enantiomorphic, counterpart of what's detected by its sensors: in other words, everything that was previously coded "LEFT" in that representation system is now coded "RIGHT," amd conversely.

8. In order to bring Robobob out of sleep mode, turn on the same spotlight and at the same time, using the calm voice of Robobob's wife, ask it to please raise its left hand.

9. Just like Bob, Robobob will "see" only its own mirror image; nevertheless, unlike Bob, it will raise its *right* hand, because "RAISE RIGHT HAND" is the command that Robobob's executive control module will send from its internal digital representation system to its action module.

10. Therefore Bob, an ordinary rational human minded animal, can do some things that Robobob, the world's most sophisticated robot counterpart of Bob, cannot do, and strong AI is impossible. **QED**

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