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# AI Chess Engines Beat Humans by Cheating, Not by Thinking

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In a recent Brief Report in the *JSE*, Amorim Boyle (2025) elaborates on the "noetic potential" of Artificial Intelligence (AI). Herein, this issue of AI's "noetic potential" is (further) scrutinized, via an example well-known to practically everybody: The dominance of chess engines over humans in the game of chess in this 3rd millennium, and especially, as some (not all) argue, after the advent of AI-empowered engines.

After 2000, chess engines started winning over chess GMs (Grand-Masters), consistently and convincingly. These first "unbeatable" engines were based on "brute force": According to the rules set by their programmers (e.g. how to evaluate a position, i.e. how to assign it a score, so that the higher the score the more superior the engine's position is, with a negative score meaning "inferiority"), they would evaluate (actually calculate a specific score for) innumerable board positions derived from numerous sequences of chess-piece movements (variations); and then, they would pick their (next) move, i.e. the one that would lead to their best chance of gaining an advantage. So, practically, there is no "thinking" involved; millions and millions of positions are scored, and the best (higher) stands out.

Around 2017, the narrative changed (Silver et al., 2018). AI was brought into the picture, by the employment of neural networks – i.e. like the Large Language Models discussed in Amorim Boyle's (2025) *JSE* Brief Report – into the chess engines' architecture. Now, the engine, via these neural networks, would "self-learn", by self-play (playing both as white and as black); according to the outcomes of these innumerable self-play games, it would self-learn how to "take decisions", i.e. what move to play next in order to gain an advantage (outperforming the previous/"traditional" engines). Thus, people started talking (and, ever since, more and more) about engine-"thinking"; since it actually self-taught itself to evaluate board positions etc. Not without opposition: Some adversaries would point out that this is pseudo-thinking and nothing else but mere "pattern recognition", however advanced (nowhere near "thought"); other adversaries would point out that AI-engines use supercomputer-grade hardware (GPUs, i.e. heavy-duty/over-powerful Graphic Processing Units), while the non-AI ("traditional") ones run on laptop-grade hardware (CPUs, i.e. good old Central Processing Units).

Whatever the case ("Traditional" vs. AI as regards chess engines), one thing is for sure: Humans do think and analyze the position on the board (within strict time limits, usually 90 minutes for 40 moves), by co-analyzing as many as they can possible future positions (according to various sequences of moves), imag[in]ing them in their heads, while what they are looking on the board surely has *huge differences* with/after a sequence of 5 or 6 future moves by each player, i.e. black and white (and then make a move, humans that

is, which they cannot take back); engines *do not* do that; engines "*look*" *at each and every future position*, like if the humans put their hands on (all) the pieces, move them around, think/analyze every position with the pieces moved, and after such an analysis (without any time limits, since computers are indeed immensely quick, one can give them that), put the pieces back to the position-in-question, and then pick their move of choice. This is *cheating*.

And, it (i.e. this *cheating*) is very analogous to (one of) the limitations that Amorim Boyle (2025) identifies, in his study of AI-precognition: "...the test platform's random number generator is proprietary, (and) because its entropy source and seeding procedure are undocumented, algorithmic predictability remains a non-trivial alternative explanation...", and, "...PsiArcade's server draws are described as server-side pseudo-random, (and) if the underlying algorithm were deterministic and inadequately seeded, subtle periodicities could be exploited by a sophisticated language model ... because the random number generator is proprietary, this possibility cannot be excluded..."; referring to AI's predictability success (larger than pure chance) when finding which card, out of a set of five, has a picture on it, while repeatedly/randomly drawing ("face down") 5-card-sets from a deck.

The above discussion indicates that there is probably a (perhaps infinitely?) long way ahead for AI's "noetic" performance to be taken literally (let alone as leading to "machine consciousness" and/or "psi abilities").

## REFERENCES

Amorim Boyle, B. J. (2025). Testing noetic potential in large language models: A 100- trial precognitive forced-choice study with ChatGPT-4.1-Mini. *Journal of Scientific Exploration*, *39*(3), 348–355. https://doi.org/10.31275/20253739

Silver, D., Hubert, T., Schrittwieser, J., Antonoglou, I., Lai, M., Guez, A., Lanctot, M., Sifre, L., Kumaran, D., Graepel, T., Lillicrap, T., Simonyan, K., & Hassabis, D. (2018). A General reinforcement learning algorithm that masters chess, shogi, and Go, through self-play. *Science*, *362*(6419), 1140–1144. https://doi.org/10.1126/science.aar6404