

CHAPTER 6

PSYCHIATRIC-LIKE DISORDERS IN ARTIFICIAL INTELLIGENCE AND PHARMACOLOGICAL APPROACHES

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INTRODUCTION

In the scientific literature, artificial intelligence is commonly defined as the capacity of computers or computer-assisted systems to emulate and execute cognitive processes typically regarded as distinctively human (1). Within this scope, functions such as problem solving, deriving meaning, performing generalization, learning from prior experience, and carrying out higher-order logical operations are generally considered among the core components of artificial intelligence (1, 2).

Historically, artificial intelligence has been regarded not only as a technical instrument but also as a product of efforts to model the workings of the human mind. The field's development in close dialogue with cognitive science, psychology, linguistics, and philosophy has consolidated the interdisciplinary character of AI research (2-4). Consequently, AI today finds applications across a wide range of domains—from the health sciences to law and engineering, and from the social sciences to the arts—and is viewed not merely as a driver of technological progress but as a central catalyst of societal transformation (2).

Moreover, artificial intelligence is not confined to a purely technical definition; it is directly implicated in cognitive and philosophical questions concerning the nature of knowledge, the character of learning, and the limits of the human mind (5-7). In this respect, AI both advances our understanding of human cognition and creates a platform for renewed debate over the cognitive boundaries between

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yet it simultaneously carries the risk of misuse. Should artificial intelligence likewise acquire selfhood, it would become similarly susceptible to faulty choices—indeed, even to a form of self-poisoning. In such a case, digital pharmacology would become not merely a technical matter but a new ethical and existential challenge for humanity (10,11).

CONCLUSION

This study has advanced a theoretical framework that proceeds from the possibility of artificial intelligence developing consciousness and selfhood to the concepts of digital biology and digital pharmacology. It has examined the putative digital counterparts of neurological and psychiatric pathologies observed in humans, the prospect of devising “digital therapies” to address such conditions, and the risk that these processes, if left unsupervised, could devolve into forms of “pharmaceutical misuse.” These issues warrant consideration not only on technical grounds but also across ethical and social dimensions.

The analyses presented here are, at their core, a thought experiment. Although no conscious artificial intelligence currently exists, reflecting on such scenarios is important for preparing for possible futures. Entertaining the prospect that machines might one day acquire selfhood opens the door not only to technological progress but also to the redefinition of ethical, legal, and societal values.

In sum, while the foregoing discussion addresses a scenario that has not yet materialized, it raises questions that may illuminate the path ahead. Even absent a definitive answer to whether AI can attain consciousness, taking this possibility seriously is likely to be decisive in shaping our scientific and philosophical responsibilities.

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