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**BIOLOGICAL ASPECTS OF KNOWING:
CHALLENGES FOR ARTIFICIAL INTELLIGENCE**

The basic structure of neural processing in the brain indicates high interdependence of the many billion elements; the maximal distance of neurons is four intermediate steps. As a consequence functional states are not independent. There is no percept without memory reference, no emotion without perceptual reference, no intention without emotional reference, no rational conjecture without mnemonic, emotional, intentional reference. This alone is the source of mistakes. Furthermore, functional states of neurons because of the large number of inputs cannot be computed. This results in non-predictability of internal states. We are victims of ourselves because of evolutionary heritage. Artificial systems are programmed to be predictable and not to make mistakes. Thus, they are (or seem to be) superior.