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Caveats on human cognitive enhancement technologies based on the sociocultural context of Singapore

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Abstract

A survey study by Haining et al reported significantly higher percentages of Singaporeans approving of human cognitive enhancement via reprotoxic technologies, as compared with American respondents in a similar previous survey study conducted in the USA. Some caveats on human cognitive enhancement with reprotoxic technologies, such as polygenic embryo screening and germline gene editing, are thus discussed based on the local sociocultural context of Singapore. First, within a hypercompetitive shame-based Confucian society such as Singapore, the autonomy of the cognitively enhanced offspring would likely be curtailed by the heavy-handed 'tiger-parenting' approach of their parents, who, after investing so much money in enhancing their cognitive ability, would have 'heightened' expectations of their academic performance. Second, cognitive

enhancement may not improve the personal happiness, sense of fulfilment and overall well-being of the offspring, particularly if their unique motivations and aspirations do not align with the idealised visions and expectations of their parents, and if they are unable to fulfil the unrealistic and unreasonable expectations imposed by their parents and broader society. Third, cognitive enhancement may not necessarily improve the future prospects and life success of the offspring if this further exacerbates an unbalanced job market with an oversupply of university graduates. Fourth, cognitive enhancement is anticipated to be very expensive and hence be afforded only by the affluent, thereby further aggravating existing socioeconomic disparities. Last, the high costs of such technologies could further accelerate demographic decline due to the heavy financial burden on prospective parents. Hence, Singapore must carefully consider these caveats before permitting such cognitive-enhancing technologies. © Author(s) (or their employer(s)) 2026. No commercial re-use. See rights and permissions. Published by BMJ Group.

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