***Chess and GO no-brainers?****Scans suggest intellectual games miss 'g' spot.
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Chess has lots in common with IQ problems.

The board games chess and GO take practice, not intellect, brain scans of players suggest1,2 . Intelligence areas appear inactive when people puzzle over game strategy.

Amateur chess and GO players do not use an area that is believed to house general intelligence, sometimes called 'g', US and Chinese researchers have found. "It's a provocative claim," admits team member Sheng He, who is based at the University of Minnesota in Minneapolis.

The result goes against common sense. Chess is considered one of the most mentally taxing of pursuits. And the Chinese game GO, in which players use stones to ring-fence territory on a grid, is thought to be on a cerebral par.

The challenges involved in the two games have "lots in common" with IQ problems used to measure 'g', argues John Duncan, who studies intelligence at the MRC Cognition and Brain Sciences Unit in Cambridge, UK. He wonders whether technical hitches obscured activity in intelligence areas in the scans.

Sheng He concedes that expert players, or those with money riding on a game, might stretch their minds more. In the test, players pondered the best move in a non-competitive scenario.

Alternatively, practice and expertise may actually account for a lot of winning moves. "Most of the stuff we think of as smart is based on experience," says psychology expert John Gabrieli of Stanford University in California.

 ***Mind games***

Sheng He and his colleagues also tested the assumption that chess exercises the mind differently from GO.

Chess players select from a limited array of possible moves. By throwing huge amounts of silicon at the problem, computer programmers can build powerful machines that rival humans: Deep Fritz drew with world champion Vladimir Kramnik in October.

***“Most of the stuff we think of as smart is based on experience.”*** *John Gabrieli, Stanford University*

But when it comes to GO, where players can make any move across the 19x19 board, man leaves machine trailing. The game is thought to require more instinct or 'human' strategy: "Sometimes a move just feels more threatening," explains He.

Brain scans did little to unravel these differences. As expected, GO players use the right half of their brain, which works out position and orientation, more than the problem-solving left half used by chess aficionados.

Otherwise, the mind's tactics look similar. GO must use "different brain mechanisms we don't understand", concludes He.

***References***

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