Why don’t people use memory when repeatedly searching though an over-learned visual display?

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Repeated Search
When searching a repeated display for a target people search the display from vision… … as if they had never seen it before!

Let’s enforce the same question in visual and memory search.
Is memory still more efficient?
Changed all response types to target localisation
Use computer mouse to click on location of target item
Same response for all conditions

Memroy Search: Highly Inefficient!

Memory Search is LESS efficient than equivalent Visual Search
…Search from vision is the more efficient strategy

Can you use memory to restrict search to a subset of items?
Physical set size: 12 or 18
Searched set size (probe size): 2, 4 or 6 items

Not affected by Physical Set Size
E.G. When the probe size was
RTs were influenced by the
Physical set size

Participants learnt to only search the relevant items

Conclusions
1. Participants use vision when searching a repeated display as it is more efficient than true memory search.
2. Vision and memory work together when memory restricts search to a relevant subset of the display

Reference

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