Different models make qualitatively different predictions

With full memory (e.g., inhibitory tagging), \( p(\text{color} 1) \) rises linearly to 1.

With a limited memory, the function is linear at the beginning, and curvilinear later on. The smaller the set size, the more linear the function, because more of the search can be completed before memory runs out.

With no memory, the function is curvilinear. The smaller the set size, the more curvilinear the function purely because of the scale

These functions are more curvilinear than linear, rejecting the full memory model.

To contrast the limited memory and no memory models, we need to look at the first 150 ms.

The small set sizes are more curvilinear than the large set sizes, rejecting the limited memory model.

Desperately seeking memory in visual search
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References

Conclusions
We have developed a new method to measure search times without reaction times.

The qualitative results favor the no memory model.

Quantitative model fits also favor the no memory model.

If there is any memory in visual search, it is well-hidden.