

# Don't label me!: Search for familiar, nameable objects vs. search for unfamiliar, novel objects

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## Does knowing the name of an object help you locate it more efficiently?

The Conceptual Hook (Brady, Konkle, & Alvarez, 2011)

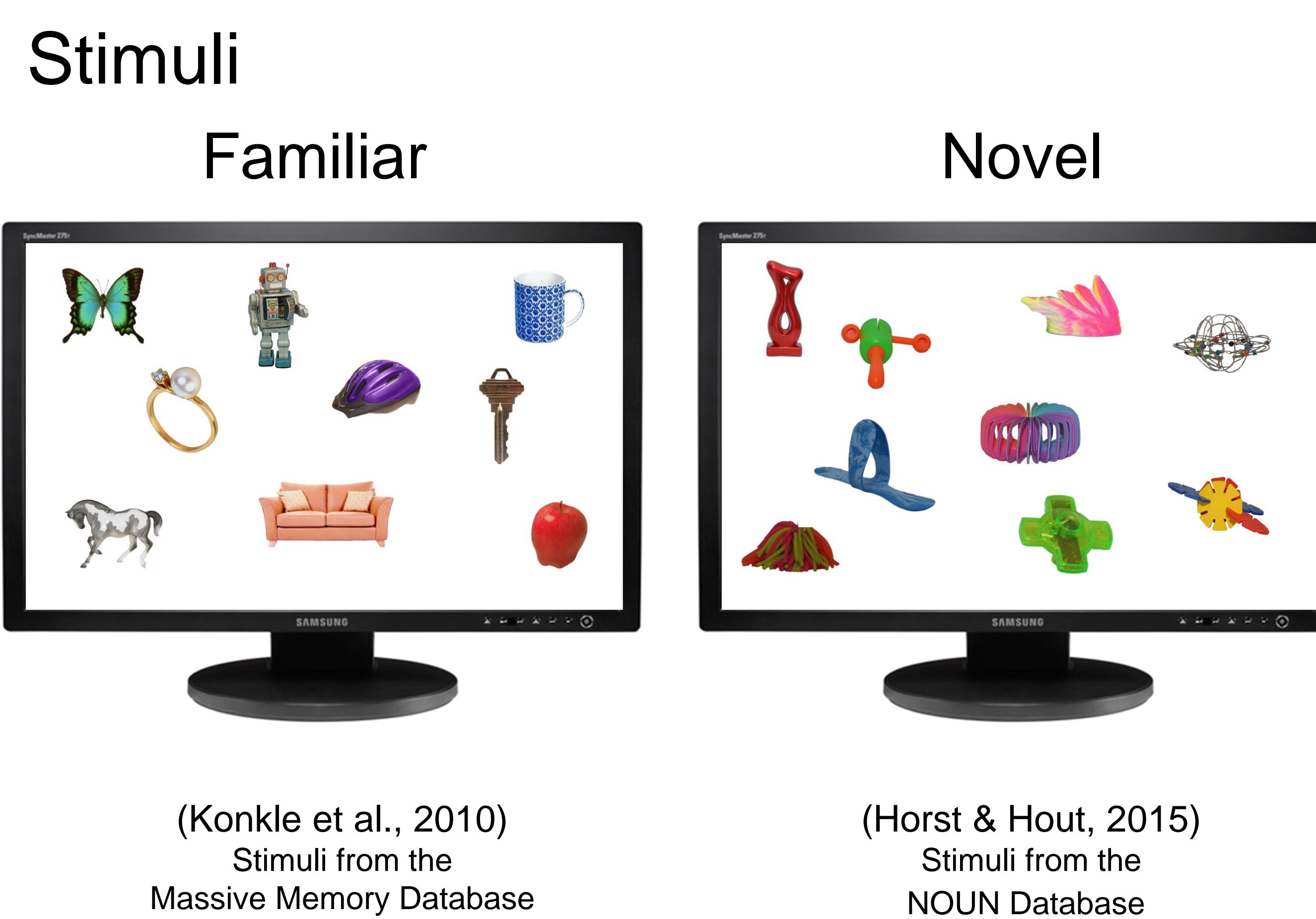
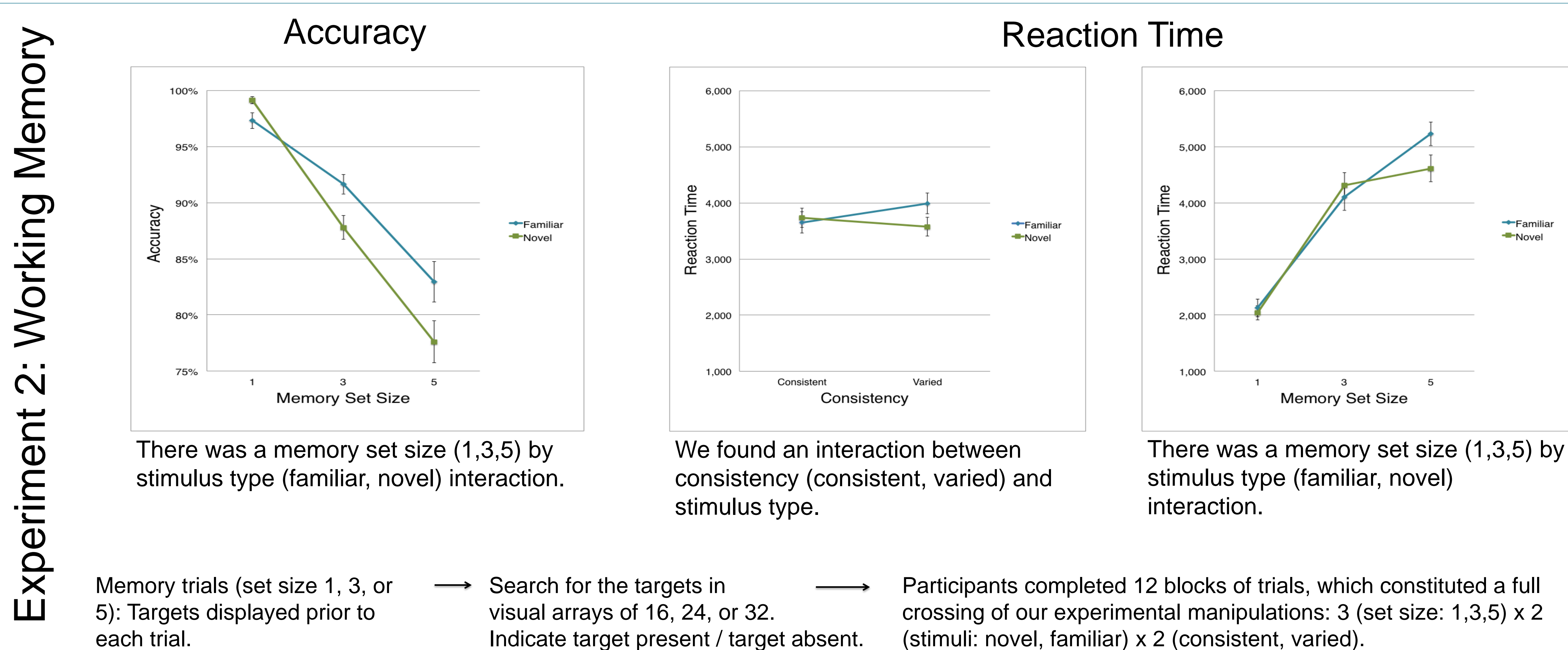
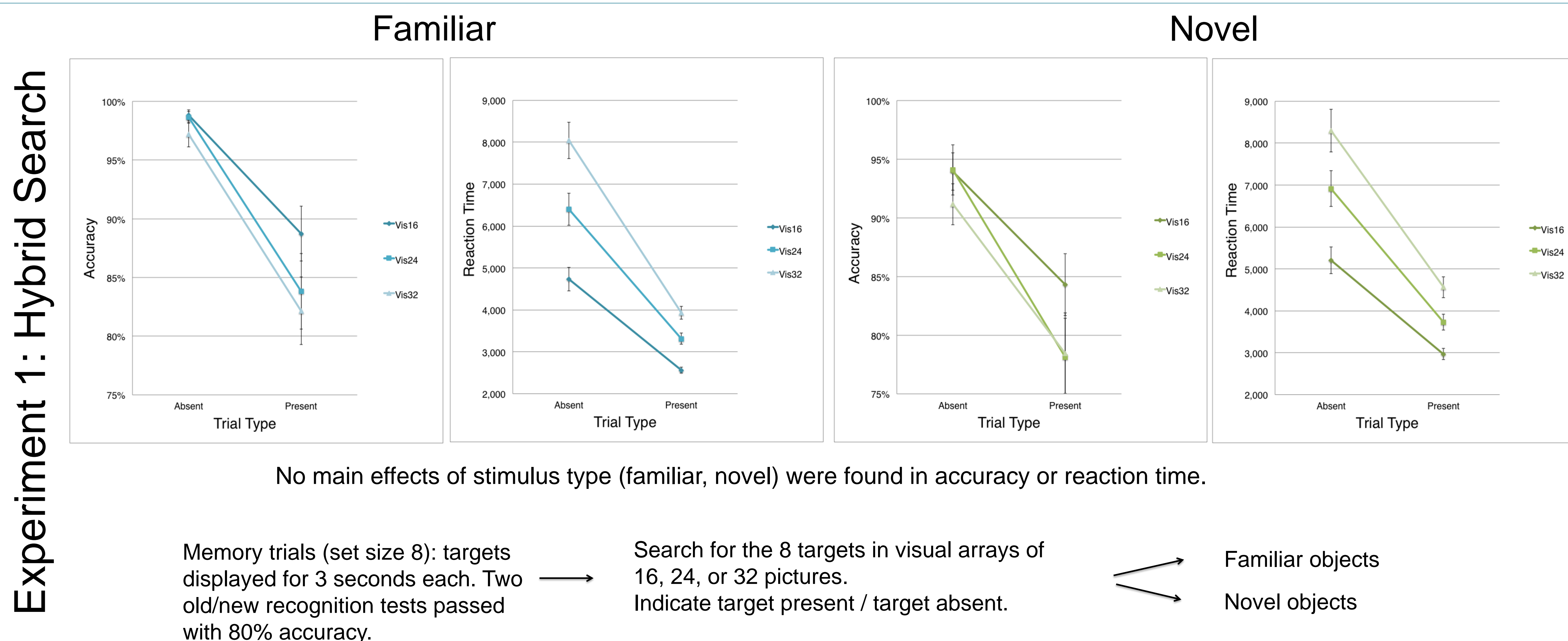
- Memory for images is better when they are semantically recognizable and nameable (Koutstaal et al., 2003).
- PET imaging has revealed activation of the occipital region when retrieving novel objects, but activation of prefrontal regions when retrieving familiar objects (Simons et al., 2011).

## Hybrid Search and Activated Long-Term Memory

- Research on hybrid search (Wolfe, 2012) relies on photorealistic, nameable stimuli, allowing search with memory sets that far exceed the capacity of working memory.
- The memorized items in hybrid search may reside in an area akin to Cowan's (1995) concept of activated long-term memory.

## Current Study

- Under what circumstances do linguistic labels affect search?
- If semantic labels are beneficial for visual long-term memory, the ability to name an item should affect hybrid search performance but not necessarily search performance that relies on working memory.
- To this end, we tested the effects of semantic labels across a wide range of search tasks. These include hybrid and more classic (working memory) search, as well as search for varying target set sizes and varying identity consistency across trials.



## Conclusions

- Nearly identical performance (in accuracy and RT) in the hybrid search task indicates that semantic knowledge may be unnecessary when search relies on items that reside in a long-term memory store.
- Linguistic labels do seem to affect search performance when a relatively large number of items in working memory must be constantly updated.
- RTs were slower when searching for familiar objects, suggesting a possibly prohibitory effect of semantic information that may be due to implicit object naming (e.g., Walenchok, Hout, & Goldinger, 2013).