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**Michael Isaiah Ham\*** (mikeh@lanl.gov), 2538 35th St Unit A, Los Alamos, NM 87544. *Not so fast: Exploration of masking in human psychophysics performance*. Preliminary report.

The time scale of accurate object recognition, in simple pop-out vision tasks, provides key insight into the biological mechanisms required for humans to process images. Previous reports have suggested that humans and primates can recognize objects presented for as little as 14ms in masked, speed-of-sight psychophysics experiments. However, many others report time scales in the 40-80ms range. Here, masking efficacy and object recognition time scales are explored using a backward masking, 2 alternative forced choice paradigm with multiple stimulus onset asynchrony delays. Target and mask images were paired in such a way as to make the object recognition task span the range from trivial to difficult. We demonstrate, for well-masked targets, that the time required for accurate object recognition ranges from 80-160ms depending on the images. Our results provide data that can be used to constrain biologically inspired models of the visual system and for developing non-trivial psychophysics experiments. (Received January 25, 2018)