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Do pinnipeds exhibit a gravity bias?: Investigations in the California sea lion (*Zalophus californianus*)

Whether or not a gravity bias is demonstrated by a marine mammal has yet to be elucidated, while it has been demonstrated across a variety of non-human animals such as chimpanzees (*Pan troglodytes*; Tomonaga, Imura, Mizuno, & Tanaka, 2007), rhesus macaque monkeys (*Macaca mulatta*; Southgate & Gomez, 2006), and the domesticated dog (*Canis lupus familiaris*; Osthau, Slater, & Lea, 2003). Pinnipeds are of particular interest as amphibious marine mammals since expectations for object trajectories due to gravity are contingent on the interaction between the medium (e.g., air vs. water) and object material (e.g., foam vs. metal). Researchers at the Center for the Study of Pinniped Ecology & Cognition (C-SPEC; www.sfc.edu/pinniped) have been investigating the opaque tubes task with a California sea lion. To date the sea lion subject, Bunker, has struggled with the basic training task. This performance challenge has been surprising due to the relative ease of other species to reach criteria to a testing stage in gravity bias studies. The researchers suggest methodological changes and discuss comparisons of the training phases across species tested.