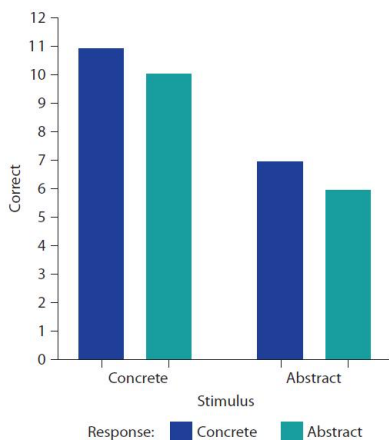


Visual Imagery

PSYC 313 - Lecture 6
Dr. J. Nicol

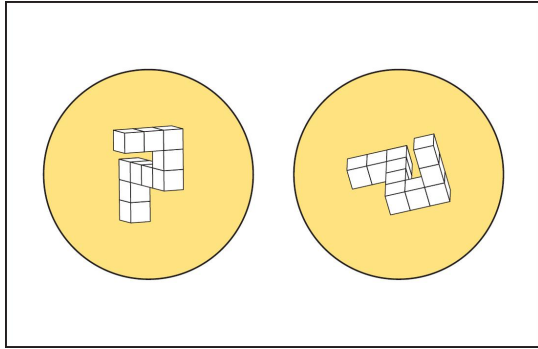
Imagery

- **Mental imagery:** the ability to recreate the sensory world in the absence of physical stimuli
- **Visual imagery:** seeing in the absence of a visual stimulus
- Visual imagery is important because it provides us with a way of thinking that adds another dimension to the verbal techniques that are usually associated with thinking



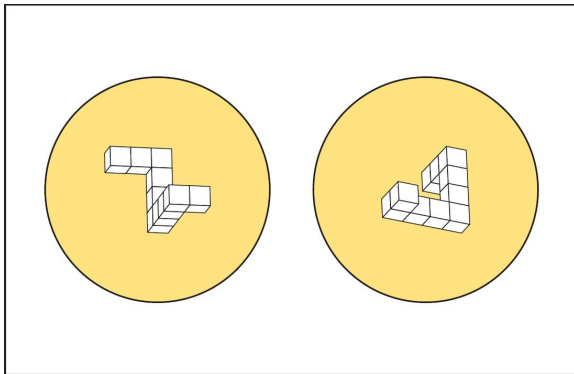
Paivio (1965)

Picture-plane mental rotation task

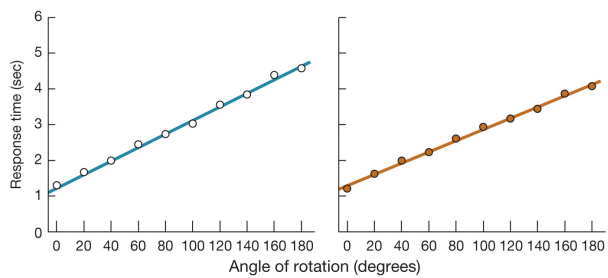


Shepard & Metzler (1971)

Depth-plane mental rotation task



Shepard & Metzler (1971)



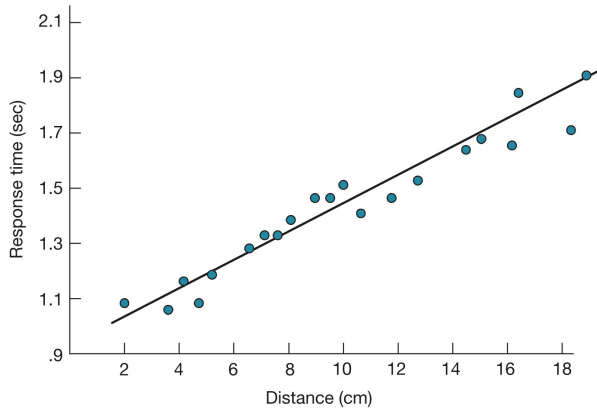
A Picture-plane pairs

B Depth pairs

Shepard & Metzler (1971)

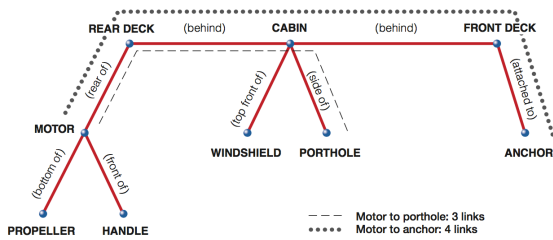


Kosslyn et al. (1978)



Kosslyn et al. (1978)

*It takes longer to locate parts of the boat that are further apart because it requires travelling through more links in a **propositional (i.e., semantic) representation***



Imagery is an epiphenomenon — participants “simulate” perception during visual imagery, but they are not actually engaged in perceptual processing

Pylyshyn (2003)

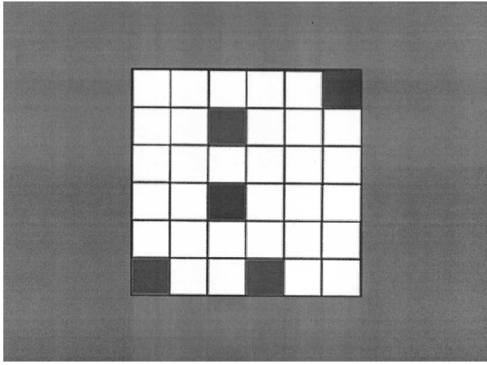
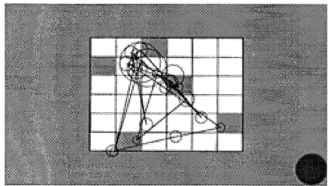


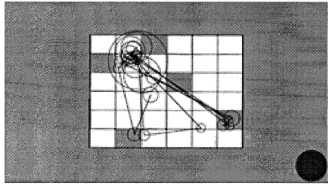
Fig. 1. Experiment 1. An example of the "checkerboard" stimuli that were first perceived and then imagined.

Laeng & Teodorescu (2002)

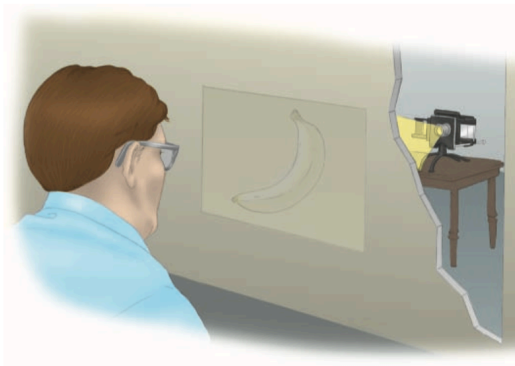
Perception



Imagery

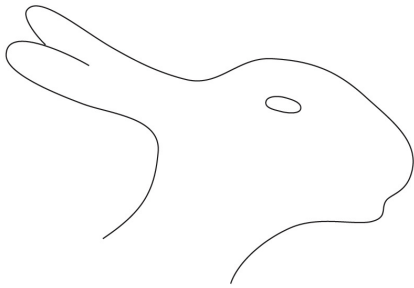


Laeng & Teodorescu (2002)

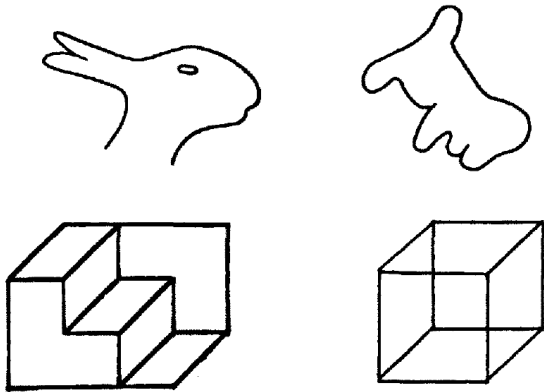


Perky (1910)

Pictures can be ambiguous: the Necker cube and the duck/rabbit can be seen in one of two ways



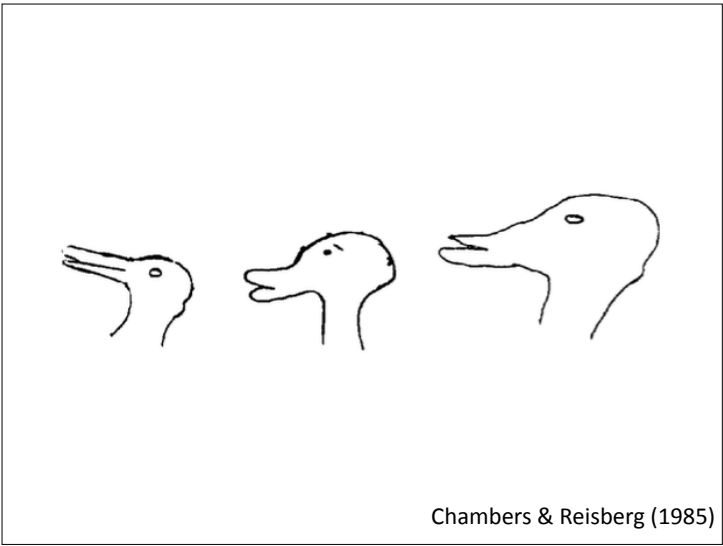
*Perception is **not** ambiguous: you cannot perceive the duck/rabbit at the same time*



Chambers & Reisberg (1985)

Experiment and test stimulus	N	Number of reversals	
			From image
1 Duck/rabbit	15	0	
2 Duck/rabbit	10	0	
4 Duck/rabbit	10	0	
Necker cube	10	0	
Schroder staircase	10	0	

Chambers & Reisberg (1985)



Experiment and test stimulus	N	Number of reversals	
		From image	From own drawing
1 Duck/rabbit	15	0	15
2 Duck/rabbit	10	0	10
4 Duck/rabbit	10	0	10
Necker cube	10	0	10
Schroder staircase	10	0	6

Chambers & Reisberg (1985)

