

Depiction of Motion; Animation

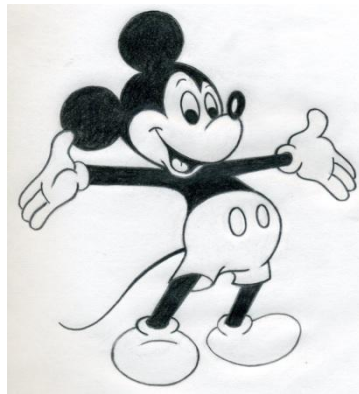
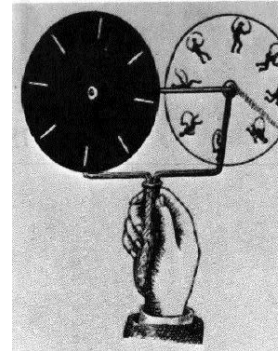
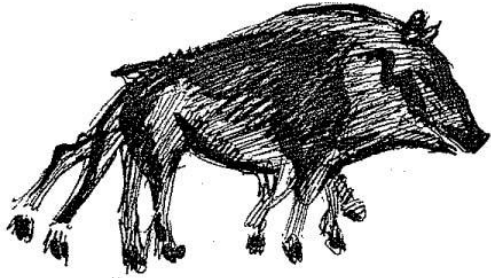
Amirhossein Mehrabian

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Outline

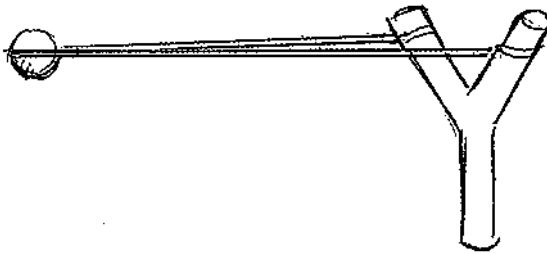
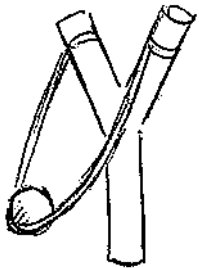
- Animation
 - Techniques
 - Application
 - Study
- Motion Depiction
 - Techniques
 - Study

History

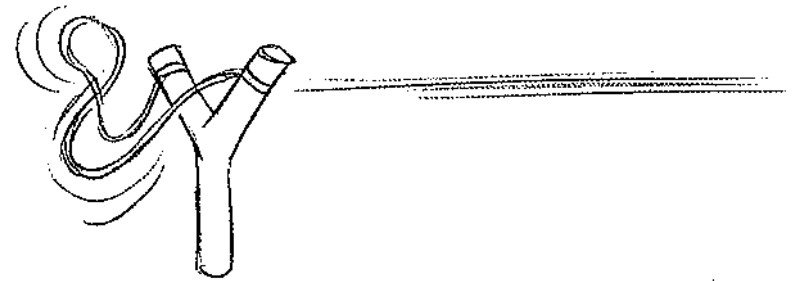


Anticipation

- There are only three things in animation:
 - Anticipation
 - Action
 - Reaction



ANTICIPATES



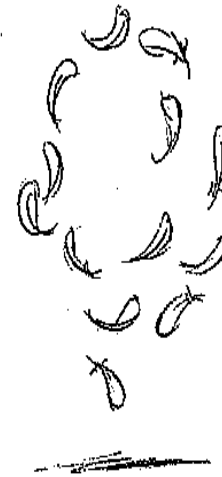
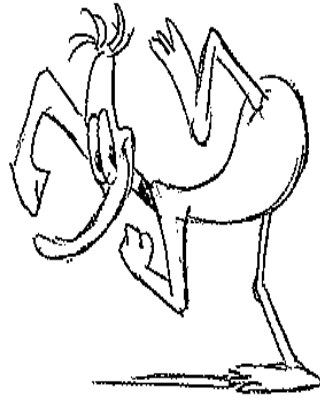
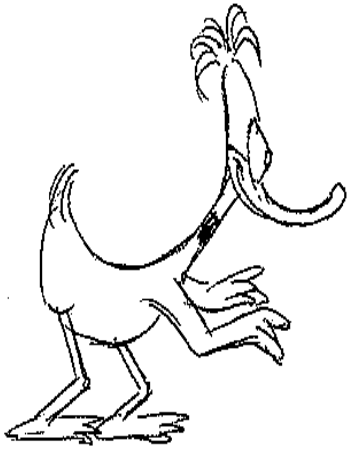
ACTION = GONE

REACTION
= FLOPS

(OF COURSE
WE LOOK
FOR WHAT
IS HIT.)

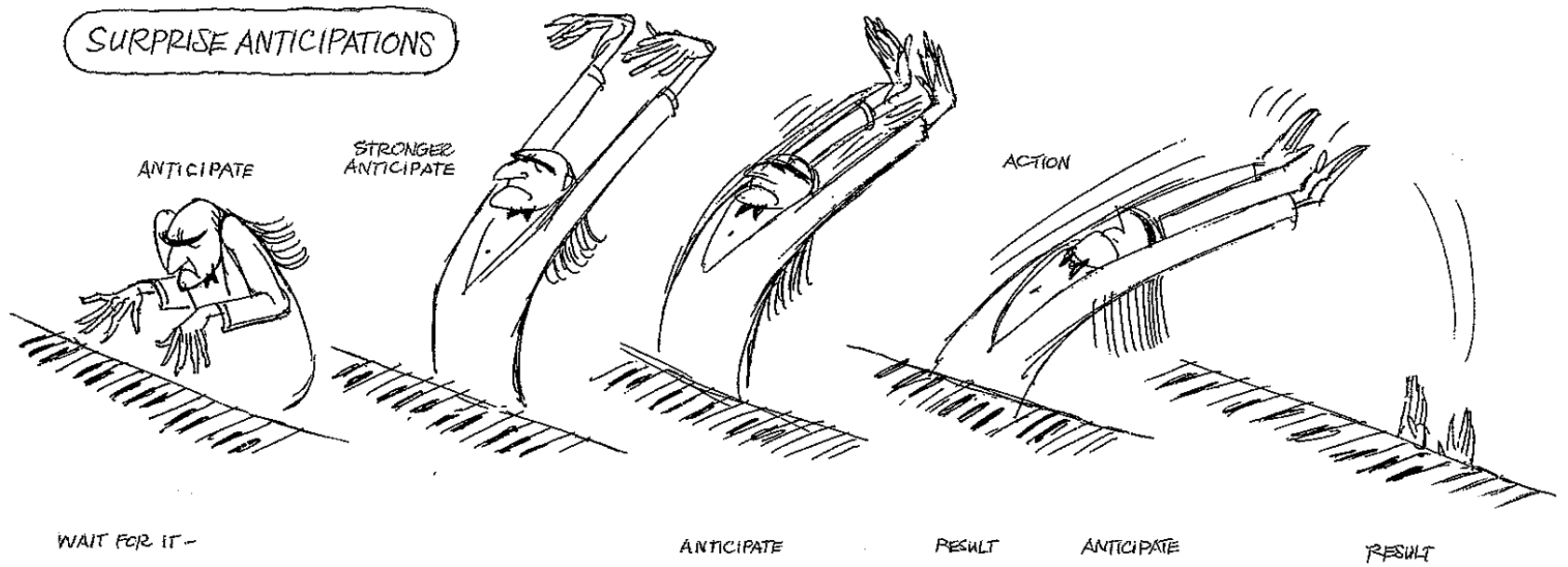
ANY ACTION IS STRENGTHENED BY BEING PRECEDED BY ITS OPPOSITE.

Anticipation



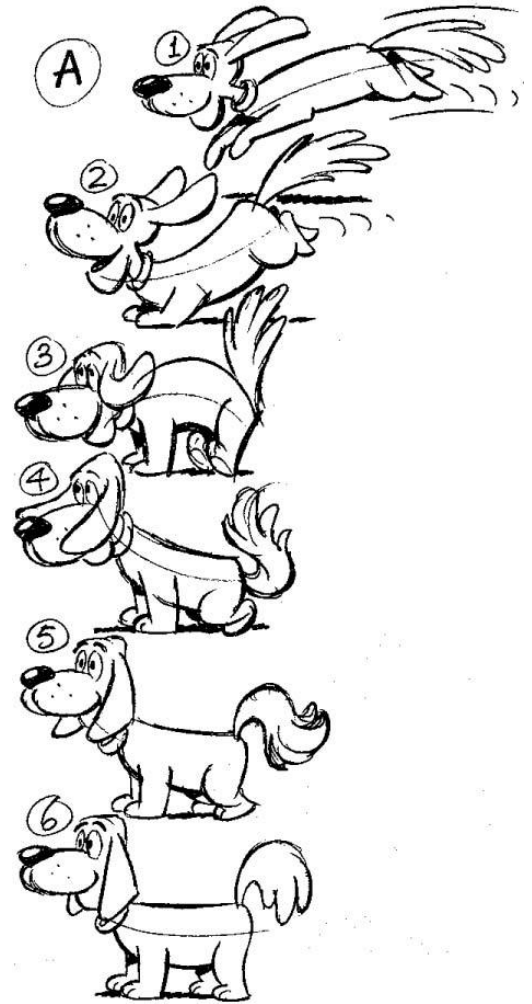
FEATHERS
LINGER

Anticipation



Overlapping Action

- Multi part figures



Application

- Traditional applications
- Educational systems

Traditional applications

- Dynamic progression



Traditional applications

- Animated Icons
 - Identification
 - Demonstration

Educational

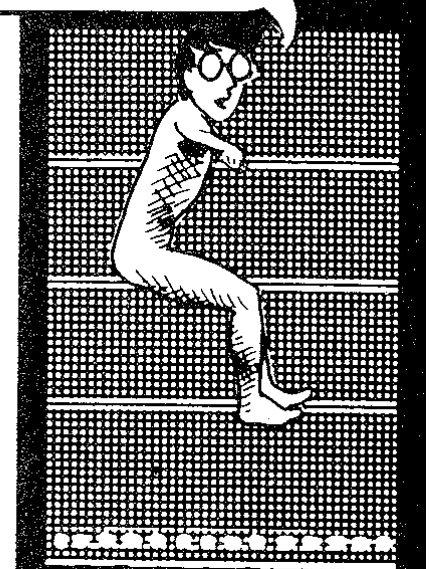
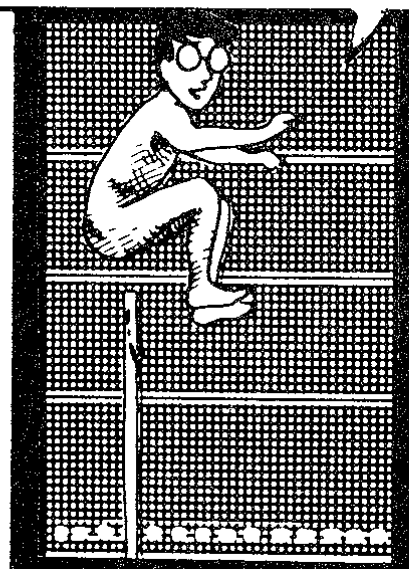
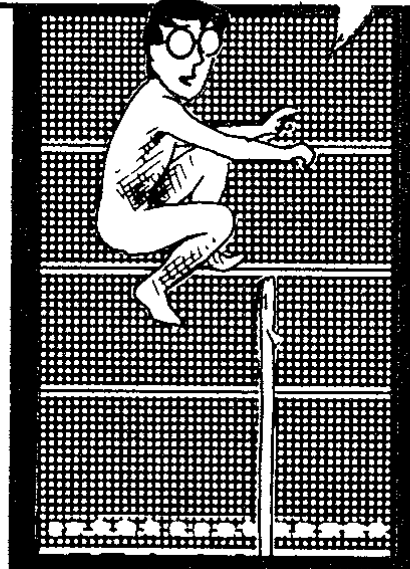
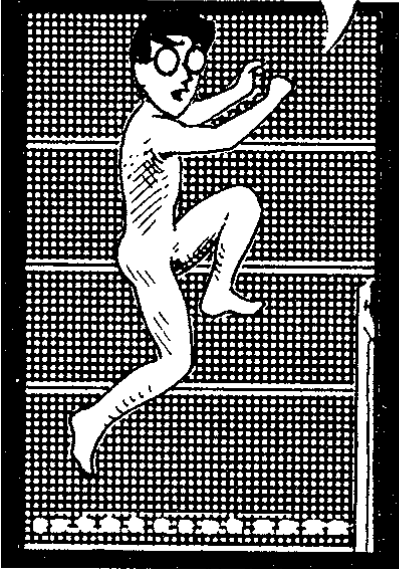
- Congruence Principle
- Apprehension Principle
 - Control over animation

Changes During Animate Motion Study

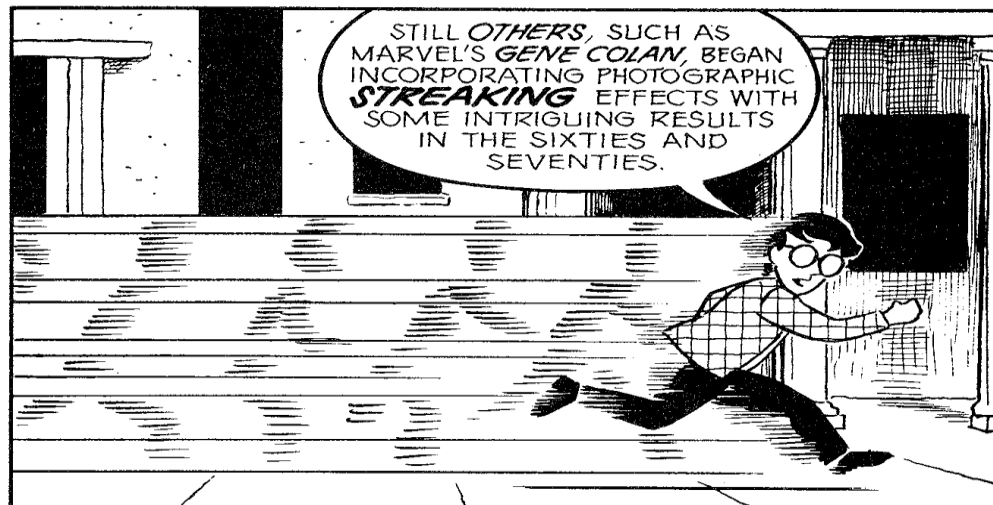
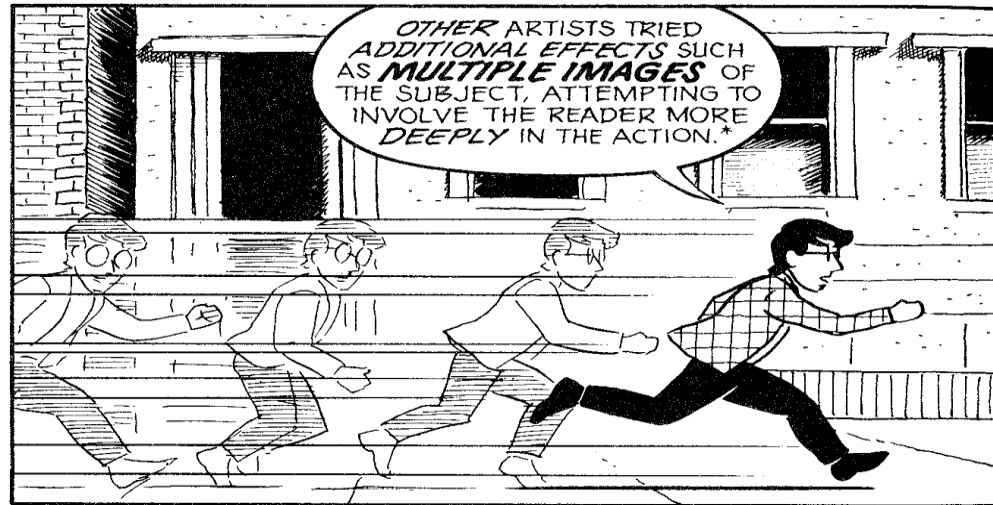
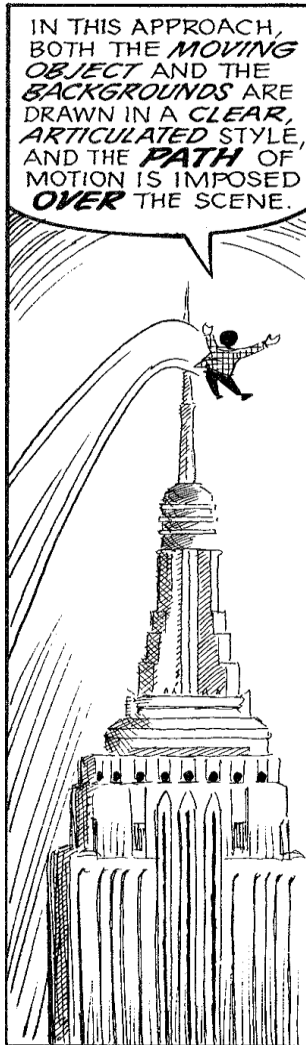
- Visual attention
- Increase more noticeable than decrease in length
- Slower is better
- Faster motion is better
- No expectation is better
- Less than 2.7% is safe
- Never more than 20%

Motion Depiction

THOUGH SEQUENTIAL ART SURVIVED FOR MANY CENTURIES *WITHOUT* DEPICTING MOTION, ONCE THE GENIE WAS OUT OF THE BOTTLE IT WAS PERHAPS *INEVITABLE* THAT MORE AND MORE EFFICIENT MEANS WOULD BE SOUGHT. AT FIRST, THIS SEARCH CENTERED ON *MULTIPLE* IMAGES IN SEQUENCE.

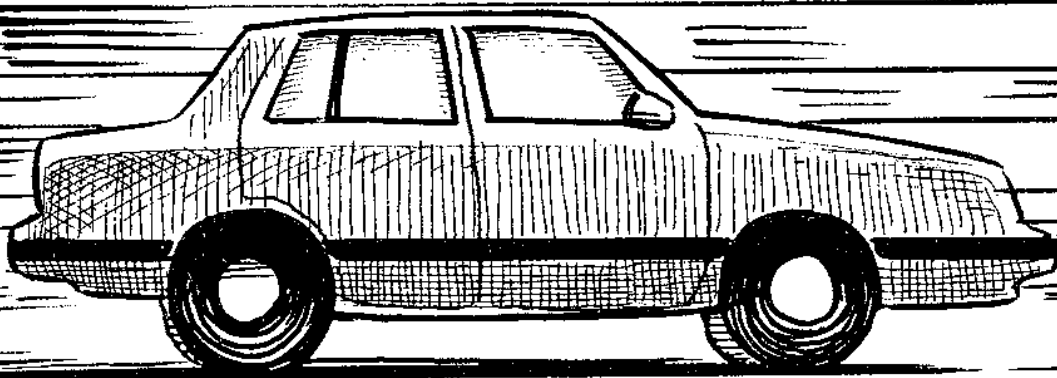


Motion Depiction



Motion Depiction

BUT IF THE CAMERA MOVES ***WITH*** THE MOVING OBJECT, THAT OBJECT WILL REMAIN ***FOCUSED*** WHILE THE ***BACKGROUND*** WILL NOW BE ***STREAKED***.

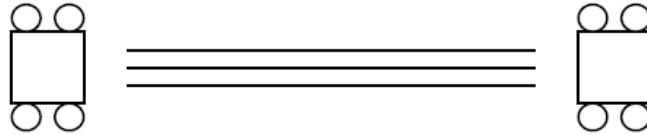


Motion Depiction Study

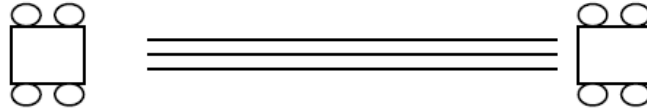
- Distance
- Direction
- Path
- Speed
- Acceleration

Motion Depiction Study

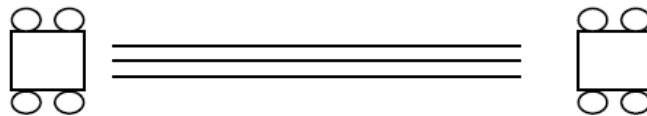
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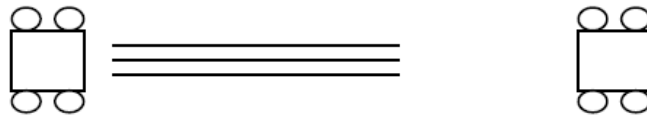
B.



C.



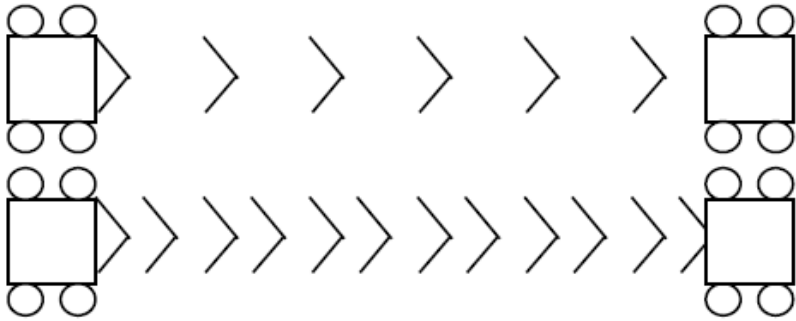
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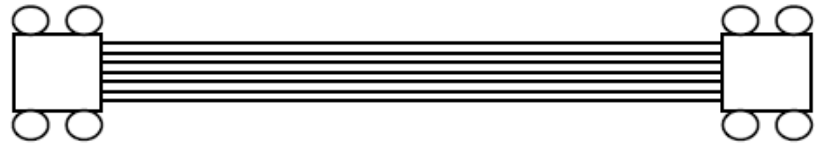
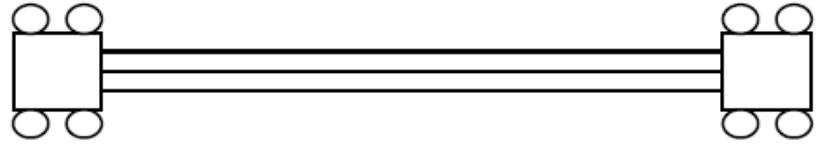
E.



Motion Depiction Study



A.



B.



Motion Depiction Study



References

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Thank you!