



GALGOTIAS
UNIVERSITY

**School of Computing
Science and Engineering**

**Topic : Timing - Staging –
Arch Motion - Perspective.**

Slow In and Slow Out

Slowing in and out in an animation is organizing the frames in a way that it has more frames in certain parts of the movement.

Cushioning an action with more frames in the beginning or the end of an action makes it seem like the movement slows in and slows out of the action. (Johnston & Thomas 1981.)

This has been illustrated with a small candle flame in picture.

A small candle flame bopping up and down, the graph illustrating the highest points of the different drawings



Arcs

With most living creatures, their movements follow arcs instead of straight lines. This is because how the inner structures, such as joints, work. When we move our 10

arm, the whole arm moves in an arc, because the shoulder joint only allows this kind of movement. Using a straight line of action makes the movement look very mechanical - or powerful if done fast – so guiding the actions in arcs can help retain the feeling of naturalness. (Johnston & Thomas 1981.)

Secondary Action

An extra action supporting the leading primary action is called a secondary action.

A secondary action enforces the idea behind the main action and should not conflict with it or become dominating over the main action, unless meant so.

For example, when a sad character turns away, a secondary action of wiping a tear from their eye can be added.

It complements the idea of the feeling the character has and the mood of the scene.

Care must be given to make the actions work together as intended and for them all to be clear for the viewer.

Secondary actions can be used to make the scene more interesting, the actions more natural, and tell more about the character's personality when used well. (Johnston & Thomas 1981.)

Timing

Before in animation the number of frames used to determine how long an action takes.

Nowadays, this is not always the case, as the frames-per-second can be altered freely.

As such, timing can be described as how long an action takes to happen. Changing the timing of a certain action can give it a completely different feel; if someone moves their head quickly, they seem surprised, but if the same movement happens very slowly, the character seems very tired or bored. (Johnston & Thomas 1981.)

But timing is not only about showing a personality or a state of mind, as it can also be used to create an illusion of huge size for example, because larger entities of mass move slower than smaller objects (Gilland 2009).

Exaggeration

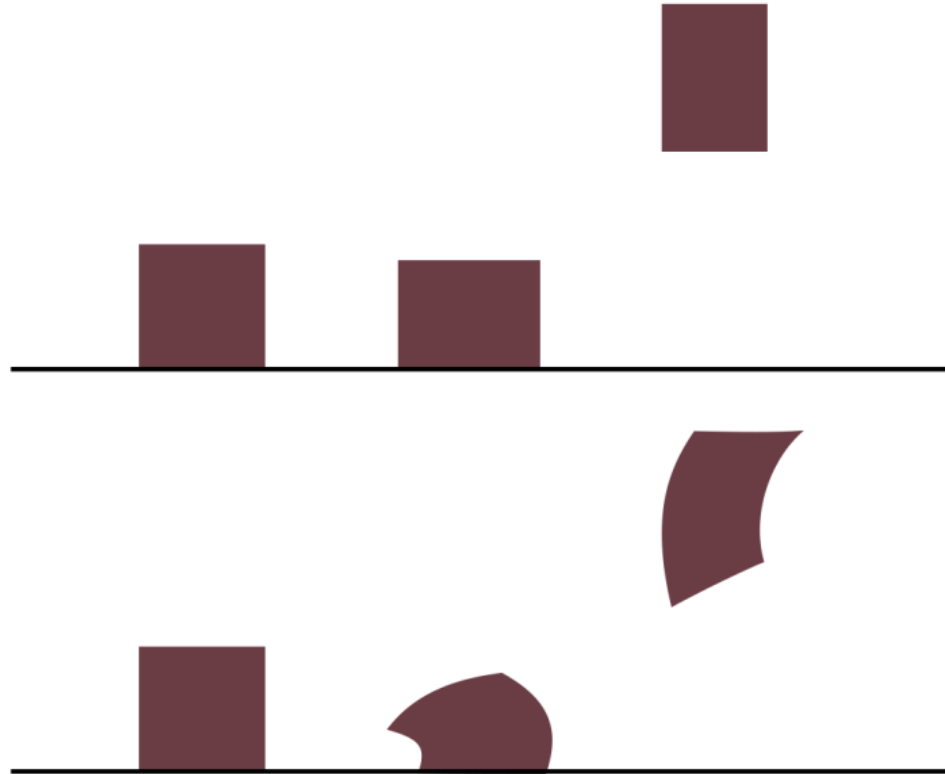
Exaggeration is taking actions a bit further than intended. This makes the actions more interesting and clearer.

With animation, realistic movements are the goal, but it is better to take the realism farther with exaggeration.

That way, it becomes not only more convincing and clearer, but also more interesting for the audience. (Johnston & Thomas 1981.)

An example of exaggeration's effect on the animation can be felt from picture 5

A toned-down version and an exaggerated version of a cube's jump.



Solid Drawing

During the process of creating an animation, in most cases the animated objects must be drawn many times, from many different angles and in many different positions.

The task will be a struggle for the artist if they're unable to draw these frames. Therefore, one of the important principles of animation is solid drawing, or in other words, being proficient at drawing.

Animation is no exception when it comes to art, as all the drawings need to have the basics of solid, three dimensional drawings: weight, depth, and balance. (Johnston & Thomas 1981.)

Appeal

Appeal does not mean that designs must be beautiful, handsome, or cute, but rather they must be fascinating and interesting.

This is because people rather look at something that is pleasing to watch for them, whether it is an expression, a character's design, a movement, or a whole situation.

If a drawing is crude or a character is ugly, it can be unpleasant to watch. On the other hand, if used purposefully, unsightly pictures can be a powerful tool in evoking certain emotions in the viewer. (Johnston & Thomas 1981.)



Thank You