

MOTUS

If you're asked whether an ant is fast or slow, you would be dumbfounded. Ants have tiny bodies and can only take tiny steps; hence, they have low velocities. But when their legs are observed closely, you'll notice that they move astonishingly fast. It's almost like watching a video at a high playback speed.

Well, what is fast or slow motion? Let us call this "playback speed" that we're measuring 'Motus' (Latin for Motion).

This difference of Motus is fairly visible in our surroundings. An elephant appears to be walking in slow motion, but it does have a decent velocity on account of its large steps. Ever pondered upon the fact that the huge dinosaurs portrayed in movies like "The Jurassic Park" move with less Motus? It should be noted that size here is relative; large elephants may be watching *us* move as ants, that is, having high motus.

Over to Mathematics, it is evident that:

Motus(μ) \propto 1/V, where 'V' denotes volume.

Now, we even possess the ability to change our Motus. For example, you may have seen a dancer performing a slow-motion step. Well, this is a complex process but basically, she/he covers a lesser distance than she/he would normally in a given time.

Simplifying, we have a higher Motus while running than when we are walking. This gives us another relation:

$\mu \propto u$, where 'u' denotes the speed of an object.

$\mu \propto u/V$

Although mathematically μ isn't unitless, it can be thought of as a ratio representing the "playback speed" of an object. The above math obviously does not apply to the real-life complicated phenomena.

Another interesting observation that can be made is that generally, creatures with high Motus have a shorter life span. A tortoise' Motus is quite low (apparently) and it lives a long life. Insects have high Motus and short life spans. Perhaps, thirty minutes of a human life corresponds to an "insect year". From their perspective, they may be having a sufficient life span, who knows! Having a higher Motus, they can perform a lot more work than us humans in a given time; even their habitat is as small as a bedroom!