


Natural frequency is the [frequency](#) at which a system tends to [oscillate](#) in the absence of any driving or [damping](#) force.¹

What is meant by resonance?

- If a system is forced to oscillate at its natural frequency ' f_0 ', the amplitude of the motion will increase and we say that the system is in **resonance**.
- All objects have a natural frequency. For example a wine glass will ring at its natural frequency f_0 .
- If someone sings loudly enough at f_0 , the glass can be made to resonate and the amplitude may grow enough to shatter the glass.



Understanding that I am not a physicist, let me propose an analogy of natural frequency to the physics of echo chambers.

Supposing the natural frequency of the echo chamber in which we reside is f [rightness]. An external application of f [rightness] will cause the echo chamber to oscillate and achieve resonance i.e. resonate with us. In simple terms, “they are playing our tune” or “on my wave length”.

So what’s the problem? The application of f [rightness] at increasing amplitude can grow enough to, as in case of a glass, shatter the object. Perhaps my analogy breaks down with destruction, but I think, at a minimum, it supports Nicholas Kristof’s assertion: *Whatever our politics [et al], inhabiting a bubble makes us more shrill*.

I do believe that if we are exposed to increasingly stronger reinforcement of our rightness, in the absence of any driving or dampening force, it will result in unhealthy (destructive) consequences. For the system (echo chamber) to achieve resonance and allow us to reside there healthily, there must be driving or dampening forces to protect the system.

It is my premise that awareness and acceptance of our human fallibility fills that requirement. I would also suggest that a natural frequency analogy supports the idea that individual action can be a force that prevents destructive outcomes.

Hopefully, this discussion can help explain the importance of awareness and acceptance of our human fallibility. Unfortunately, in the face of our unrelenting desire to be right, the question of how to we achieve awareness and acceptance of our human fallibility remains.