

THE SIMPLE MATHS OF TIME.

The fundamental relation between Human time (τ) and clock-time (t) is:

$$\Delta\tau \propto \frac{\Delta t}{t}$$

which simply says that a short interval in Human Time (Left hand Side) is, as we found, proportional to the corresponding interval in Clock Time *divided* by the Clock Time up to that point (Right hand Side). Thus for small t (when we are young) Human Time runs faster.

Integrate the above equation and

$$\tau = a + b \ln t$$

where \ln is the Natural Logarithm function and a and b are two arbitrary constants (numbers) we can pick at our convenience, one arising from the Integration, the other from the proportional sign in the first equation. Picking values for a and b then links the two time schemes together numerically.

My choice of a and b links the two schemes together at the beginning ($\tau = t = 4$ years old) and towards the end ($\tau = 70$ years old) of our natural lives in which case:

$$\tau = -28 + 23.06 \ln t$$

or

$$t = \exp\left[\frac{\tau + 28}{23.06}\right]$$

I have chosen 4 because most of us don't remember much from before our fourth birthdays. But you can make alternative choices, though the significant results will turn out to be much the same.