**PERSPECTIVE**

**Every day, in addition to physical exercise, I also do mental exercises.**

**One of the exercises that I do to exercise my short-term “working memory”**

**is called “dual-n-back” training:**

[**http://brainscale.net/dual-n-back/training**](http://brainscale.net/dual-n-back/training)

**But this article is not about that training.**

**It is about the mathematics of progressing towards goals.**

**From the beginning, I kept daily records of my performance.**

**It took me about 6 months to reach a level**

**where my percentage of success equaled about 99.852%.**

**I thought to myself,**

**“Wouldn’t it be nice to reach 99.9% and be able to say**

**that I only make a mistake ... once in every 1,000 chances.”**

**One year later, my percentage was ... 99.854% (virtually no change).**

**Why was it so difficult to add a measly 0.05%?**

**To see why, it is necessary to turn the question around**

**and examine it from the other side;**

**in other words, from the perspective of the errors**

**rather than from the perspective of success rate.**

**To reach the goal of 99.9%,**

**you are allowed only 1 error every 1,000 chances.**

**99.85% equals 1 error every 667 chances.**

**Now, to make it easier to visualize, let’s use 2,000 chances:**

**At 99.9% you are allowed 2 errors. At 99.85% you are allowed 3 errors.**

**To improve your success rate from 99.85 to 99.90**

**requires that you cut your error rate by 33%.**

**What seemed so easy when viewed from one perspective**

**(improve by 0.05%)**

**is actually a whole lot more difficult**

**when viewed from the opposite perspective (improve by 33%).**

**Neither view is right or wrong. Both are mathematically valid.**

**It’s all a matter of perspective**