Dynamic Motivation in Goal Pursuit

ABSTRACT:

We use a dataset of over 5 million US high school track times from 2009 to 2019 to examine the dynamics of motivation as athletes approach and surpass round number performances. Previous research has found that goals and round numbers increase provision of effort. For high school boys running 1,600 meters, 5:00 acts as a reference point, with approximately 20% higher density at 4:59:XX than 5:00:XX. In this study, we investigate how near-misses (e.g., 5:01:XX) and recent successes (e.g., 4:58:XX) impact subsequent motivation and performance. We find a significant discontinuity in subsequent performance around 5:00. Athletes who have run 4:59:XX are 10% less likely to improve in their next race or in the remainder of their season relative to athletes who have just run 5:00:XX. We observe a similar pattern at 6:00 with high school girls running 1,600 meters.