

A Case Study of Distance Training

Steve Magness
University of Houston

PEAK PERFORMANCE



PEAK PERFORMANCE

Brian in HS

- 1:57.5- 800m
- 4:13.5- 1,600m
- 9:05- 3,200m

Mike A. Myers Stadium - Austin, TX - 5/10/2013 to 5/11/2013

Event 502 Boys 3200 Meter Run 5A

```
=====
National: ! 8:34.23 2008      German Fernandez, Riverbank, CA
State: + 8:52.34 1987      Eric Henry, Conroe McCullough
Conf 5A: * 8:52.34 1987    Eric Henry, Conroe McCullough
Name                Year School                Finals Points
=====
```

Finals

```
1 Domanic, Robert      Lewisville Hebron          8:57.95    10
2 Sansone, Joe         Southlake Carroll          9:03.05     8
3 Ammons, Robert      Strake Jesuit              9:03.60     6
4 Wells, Austin       Northside Clark            9:07.89     4
5 Barraza, Brian      EL Paso Franklin          9:15.90     2
6 Martinez, Jose      Weslaco East              9:18.40     1
7 Lara, Frank         Strake Jesuit              9:23.02
8 Hedges, Brigham     Woodlands                  9:30.13
9 Irvin, Craig        Woodlands                  9:30.15
```

PERFORMANCE

Intake: What are we working with?

- Physiological
- Psychological

Physiology and Biomechanics

- How they handle:
 - Volume
 - Intensity
 - Density
- Recoverability
- Peaking
- Injury

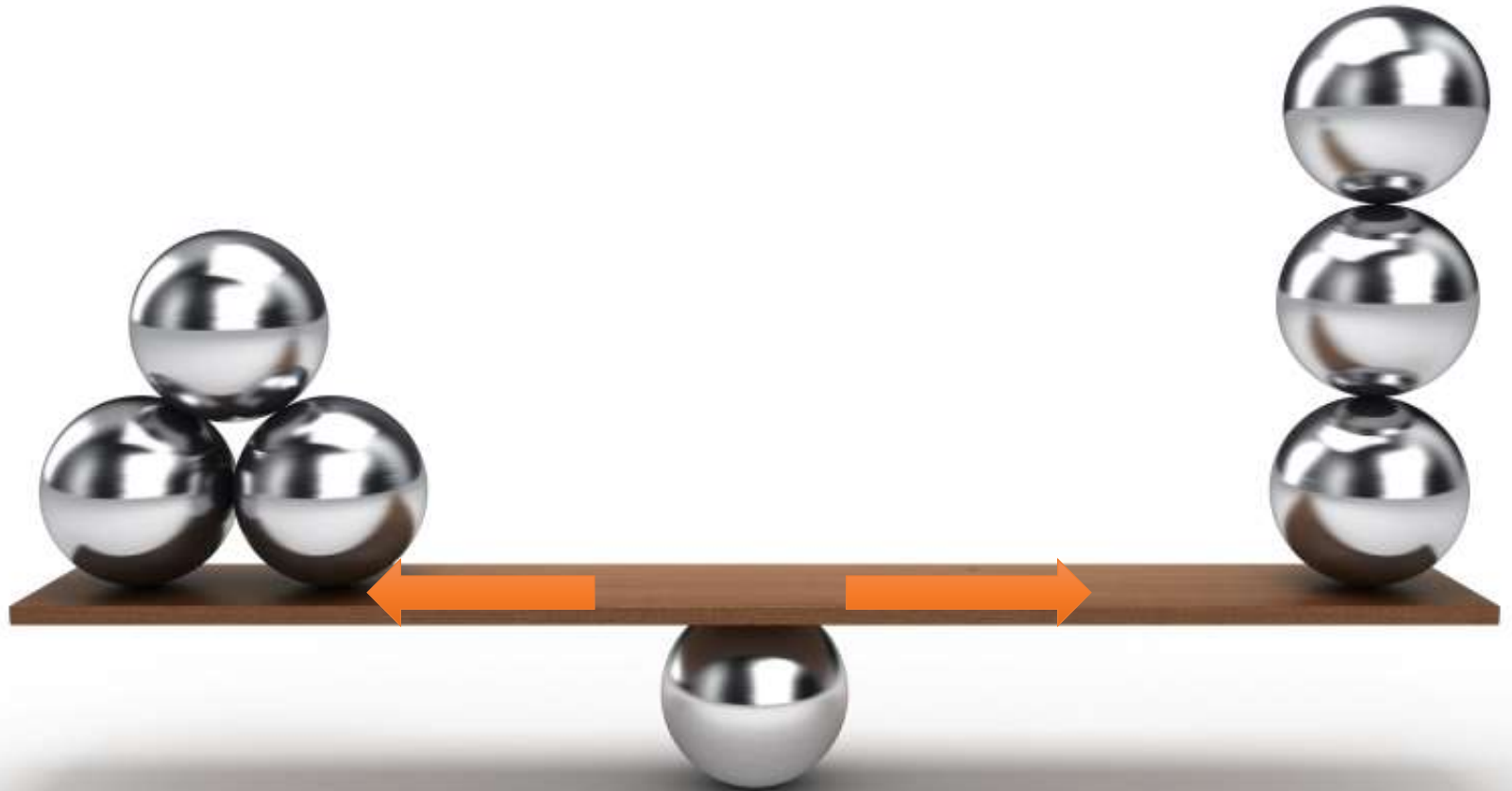
Sample Questions: Aerobic abilities

- What's your longest run ever?
- Have you noticed a mileage “threshold” that if you cross you start to feel sluggish/lose pop in the legs?
- During a longer run or race(10k+) does breathing or leg fatigue seem to limit you?
- Briefly describe a typical workout that you have done in the following categories:
 - long run-
 - tempo run-
 - longer repeats(i.e. mile repeats)-
 - Medium Length Repeats (600,800,1000s)-

Balance

Speed

Endurance



Psychological

- Trying to Figure Out:
 - Motivation- Internal or External
 - Goals- What they hope to get out of it
 - Resiliency- How they handle failure (and success)
 - Team vs. Individual Focused
- Their **WHY**

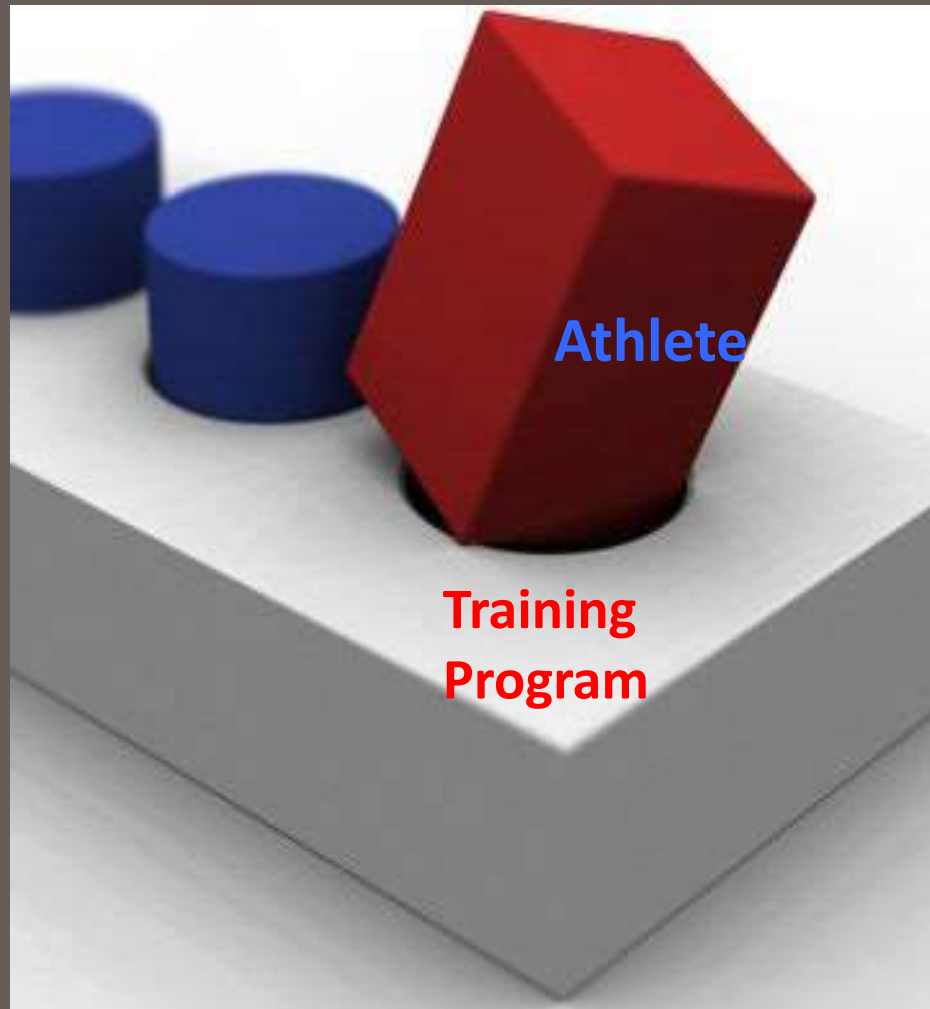
Psychological Framework

- **Stress/Anxiety**
 - THREAT vs. CHALLENGE
- **Competition- Success/Failure**
 - Fear of Failure vs. Drive to Win
- **Motivation**
 - INTERNAL vs. EXTERNAL
- **Passion**
 - OBSESSIVE vs. HARMONIOUS

Brian's Intake

- Low Mileage
 - Aerobically Inclined
 - No “extra gear” - speed lacking
 - Handled a high density of interval work
- Smooth mechanically
 - Lacks Power....”spins wheels”
- Psychological
 - Positive
 - Intrinsically driven
 - Willing to Learn/Coachable
 - Resiliency/Toughness- solid but room for growth

Traditional Model



Athlete Centered Model



Goals

- Gradual Progression
- Maximize Strength (aerobic ability)
- Improve “Weak Link”

Aerobic Progression

- Mileage

	PEAK	Average (Season)
Freshman	63	55
Sophomore	75	65
Junior	80	75
Senior	90	80
5 th Year	95	80



High End Aerobic

- Areas to Address:
 - Struggled at first...
 - Sustained- concentration, rhythm
 - Became mental training
- Workout Targets
 - Tempos/Thresholds
 - 3-6mi @ low 5's
 - Added "stuff" to them as we increased pace
 - Long Progression Runs
 - Started with 6miles (5:45→5min), extended to 9 miles (5:40→4:50)
 - Alternations
 - Example: 5.5miles of alternating 800m in 2:20 and 800m in 2:45

SO XC

<p>Alternating 800's:</p> <p>Yonas-5.5miles alternating 800m at 2:26, 800 at 2:55</p> <p>Brian- 4miles with <u>Yonas</u>, break, then last 800 w/ <u>Yonas</u></p>	9miles	9miles	<p>3mi warm up, <u>workout</u>, 2mi cool down</p> <p><u>Yonas</u>, <u>Brian</u>, 4x300, 4x200 w/ 200m jog</p> <p>300's- cruising- rhythm focus 200's- 29-30s</p>	9miles	<p><u>Yonas</u>, <u>Gabe</u>, James,- 15mi</p> <p>John, Brian- 14miles</p> <p>Trevor, Nate, <u>Lex</u>, Zach- 13m</p>	<p><u>Yonas</u>, Gabe- 8miles easy</p> <p>Brian - Off</p>
---	--------	--------	---	--------	--	--

SR XC

<p>GJ, Wallace, Gabe, Blake, <u>Parms</u>, Devin- 5x1mile with 3min rest 5:05->4:45</p> <p>Brian- 1 mile-5:00 800m steady (2:50-45) 2.5miles 800m steady 2x1mile- 4:50-4:40 w/ standing rest</p>	9mi with double in evening	9-10miles	<p>Brian- 4x250m hills <u>fartlek</u>- 4x3min @ 10k effort w/ 90sec easy 4x250m hills</p>	Brian, Gabe, GJ, Devin- one of your doubles (split it even 6/6 or similar)	<p>Brian, Gabe-16mi GJ, Wallace -14</p>	<p>Gabe, Brian, GJ, Chris W- 7 miles</p> <p>Everyone else-off</p>
--	----------------------------	-----------	--	--	--	--

Speed Progression

1. Increase basic speed
2. Smooth at faster speeds
3. Get strong enough to utilize what he's got.
4. Change Gears

SPEED!

- Hill SPRINTS!
 - Weekly during summer, included throughout year.
- Extend Speed
 - Ran 4x400 occasionally
 - 200s down to 25 with decent rest
- Smooth at faster speeds
 - Rhythm work-
 - 8-10x200m w/ 200m jog in 30→27
 - 300's and 400's where focus was on relaxed at speed versus killing it

*“The **personal search** for a rhythm, rather than an **imposed** rhythm, is an outstanding opportunity for athletes to explore their relationship with their bodies”*

-Jim Denison and Joseph Mills

Change Gears

- Workouts were progressive:
 - 8x800 w/ 2min rest (2:20→1:59)
 - 4xmile (4:35-30-25-18)
- Last rep- “Wind it Up”
 - Progressive close- example last 800m (62/58)
- Pace Change
 - 5.5miles of alternating 800m in 2:20 and 800m in 2:40

Results:

- HS- 1:57.4
- Freshman- 1:55.55- dead EVEN the whole way...
- Senior- 1:52.06 indoors

- Mile- 4:13.5 → 3:58.66 indoors

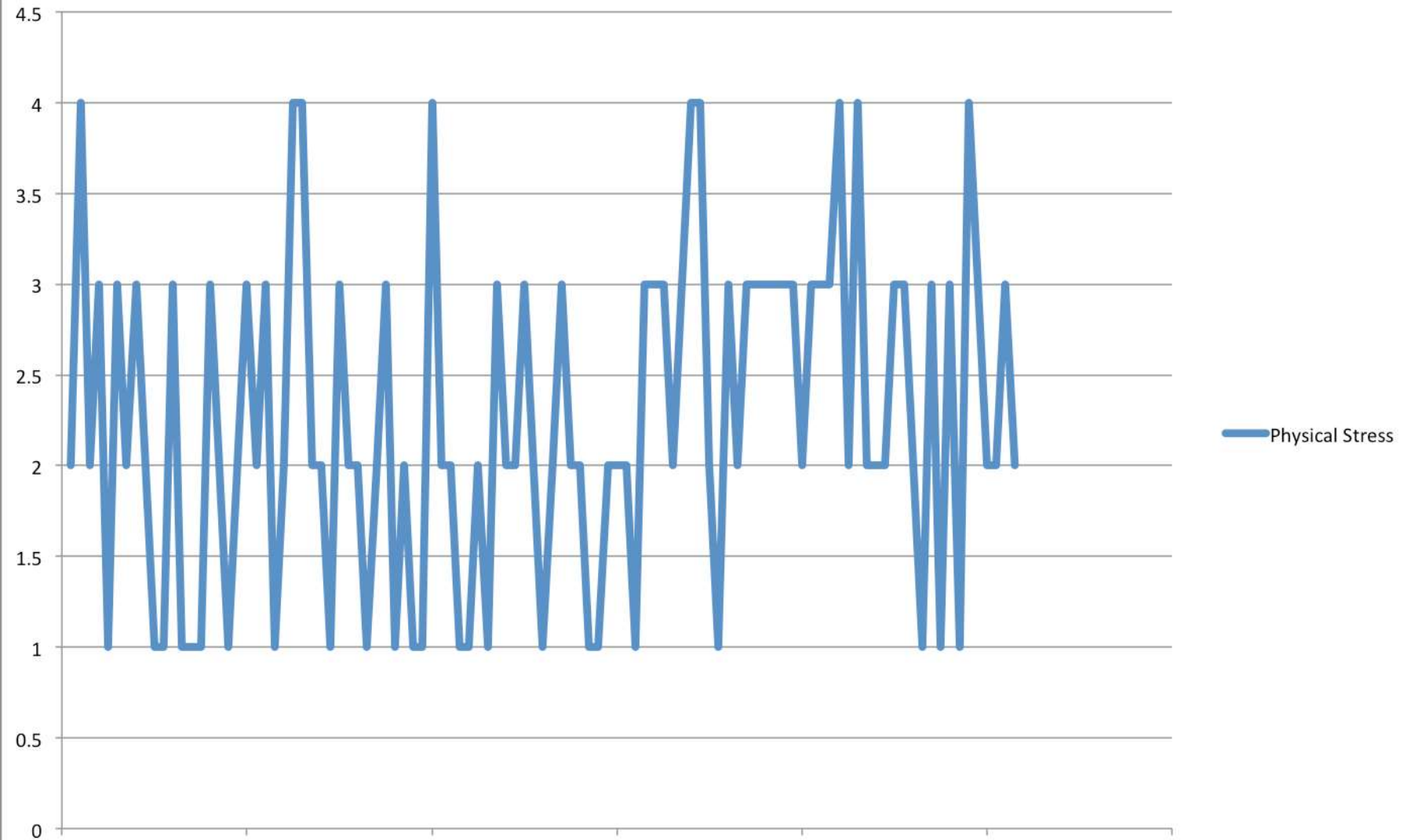
How hard do we need to go?

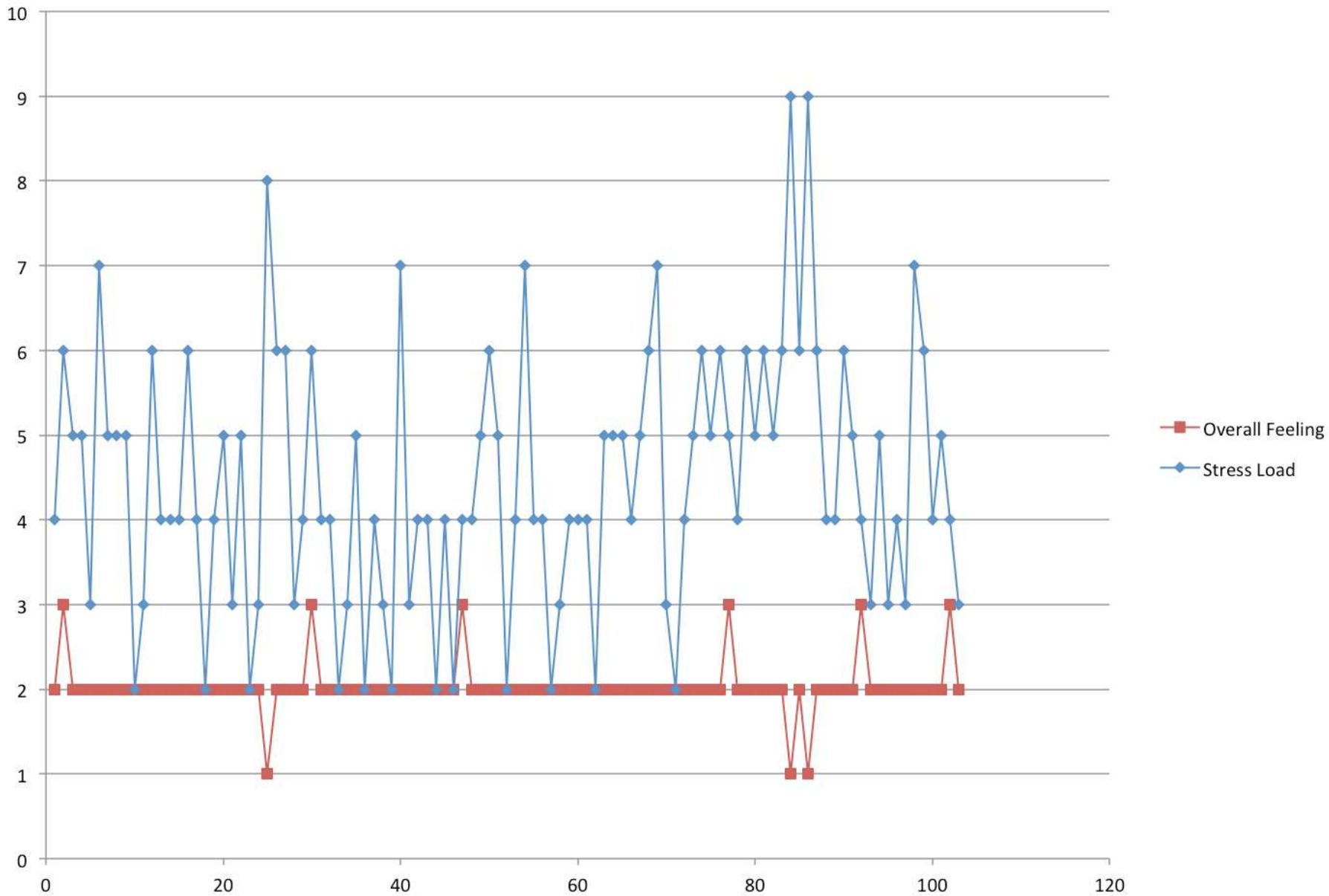


PEAK PERFORMANCE

How hard do we need to go?

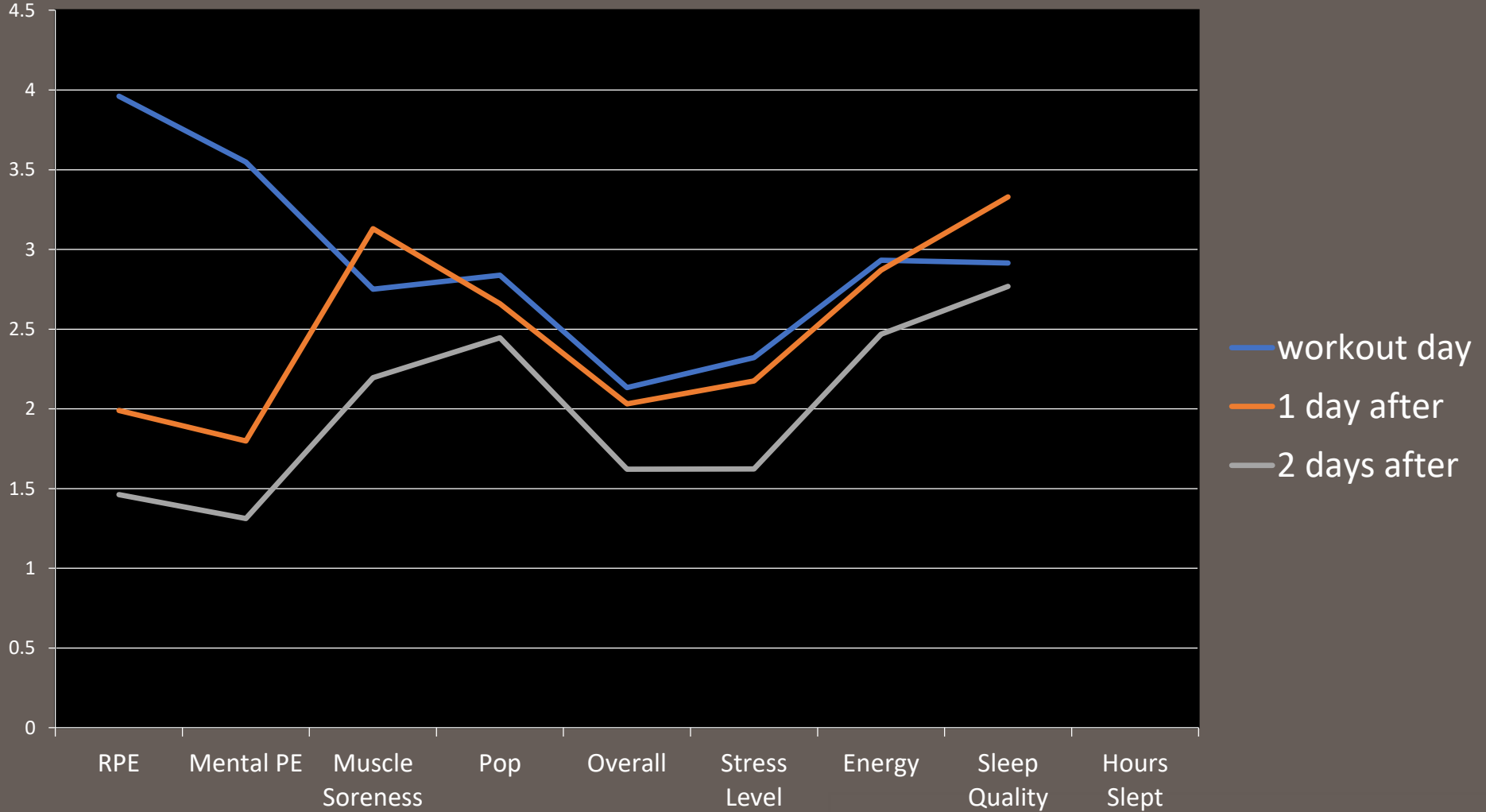
Physical Stress





Response to Workouts

(Long Intervals- 8k-15k pace, 5-8mi of volume)



- Lesson Learned?
 - Good, solid consistent work



Psychological: “Toughness”

- Mindset
 - People to model
 - Neely Spence- 13th World XC
 - Jackie Areson- 15:12 5k (13th at World Track Champs)
 - Ryan Dohner- 28:05 10k
 - Upper Classman
 - Drevan Anderson-Kappa (2x 800m conference champ)
 - Yonas Tesfai (1:48/4:03)
 - Selena Sierra (Conference Champ-2steeple)

Response to Failure

- Response to Failure
 - SO:
 - 180+ at NCAA XC
 - Missed DMR nationals by less than 2 seconds
 - JR year
 - missed NCAA 10k nationals by 1 second
 - 5th year XC
 - Great pre-nationals, subpar NCAA championship
 - Throughout
 - 2nd place at Conference 5+ times! (Marc Scott- 13:22 5k)

“Toughness” - Coping Strategies

- **Calm conversation.**
 - Focusing on having a calm conversation with yourself allows you to have the space needed to assess how you feel, how the race is going and how to execute your race plan.
- **Focus on responding, not reacting.**
 - A reaction is something that you do without thinking, whereas a response requires you to take a moment, process what is going on and what the best course of action is.
- **Break it down.**
 - Segmenting any race into smaller, more manageable pieces can help you process it better. The emphasis shifts to dealing with what is happening in that moment in particular rather than being overwhelmed by the task in its entirety.
- **The debate.**
 - In the middle of any hard effort there are two sides: the part of you that wants to keep going and the side that wants to slow down or give up. Given that the outcome of any effort is usually to run fast, your job becomes winning the debate for the side that wants to persevere.

“Toughness” - Coping Strategies

- **Purpose.**
 - This is anything bigger than yourself that you can think of mid-effort to help you refocus. This can be your team, your family, the university, etc.
- **Brain off and follow.**
 - This is where you just “zone out”. The race around you is background noise that you pay the smallest possible amount of attention to until it is time for you to “wake up” and start racing for real.
- **This one is for free.**
 - This strategy is aimed mainly at practice. Here, you imagine that any rep you do with people is one that you don’t really have to run. You’re only “charged” for what you run solo.
- **Go to a bad place.**
 - This is an advanced technique for people with a good grasp on other strategies looking to challenge themselves and grow. Let your mind spiral out of control a little bit until you find yourself fighting panic, then figure out how to get out of it.

So
What?
!!!

Coach...

The Athlete

Not The
System.

Coach...

People.

Not Numbers.

Teach.

Not Train.

Lessons/Rules

1. Understand what you are working with
2. Minimize “Kink in the pipe”
3. Next Logical Step

PEAK PERFORMANCE

A balance must be held between exhaustive work, rest, and the breaking down of the spirit, i.e., the ego, the confidence in oneself, and one's self-respect.

All work, effort, whether it be for success in athletics, or any other objective must be done with a purpose. And not merely an ultimate purpose, or goal, but a definite purpose related to the present effort, or exertion.

Merely to go out and train without a strongly held idea of why we are doing this particular form of training is to place training in the same category as a child who idly kicks at something, or adults who wander pathetically through life without any real goals, ambitions or reasons for perpetuating their existence.

A strongly viewed purpose implies deep thought. Deep thought involves the ability to concentrate the whole of one's mind, or personality, upon the task of the moment.

It is from the faculty to concentrate, to become wholly absorbed in the effort, and a belief in the worthwhileness of the effort, both as to itself and its contribution to the eventual goal: from this alone can ever come worthwhile development. With this development, involving as it does,

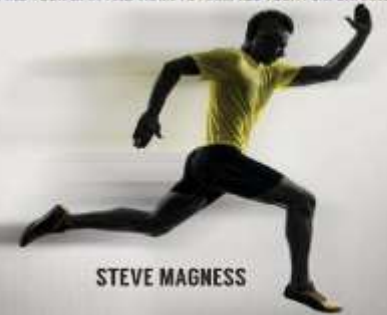
Thanks!

www.ScienceofRunning.com

THE SCIENCE OF RUNNING / STEVE MAGNESS

The
**SCIENCE OF
RUNNING**

HOW TO FIND YOUR LIMIT AND TRAIN TO MAXIMIZE YOUR PERFORMANCE



STEVE MAGNESS

A GUIDE TO GOING ALL IN,
FINDING SUCCESS, AND
DISCOVERING THE
BENEFITS OF AN
UNBALANCED LIFE

NOISSION
THE PARADOX

BRAD
STULBERG

STEVE
MAGNESS

COAUTHORS OF THE BESTSELLING
PEAK PERFORMANCE

ELEVATE YOUR GAME,
AVOID BURNOUT,
AND THRIVE WITH
**THE NEW SCIENCE
OF SUCCESS**

PEAK
PERFORMANCE



BRAD
STULBERG

STEVE
MAGNESS