

Middle Distance Racing

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(MENTOR, Teacher, Inspiration, CATALYST)



Young Lady – Old Lady -- Bunch of Lines

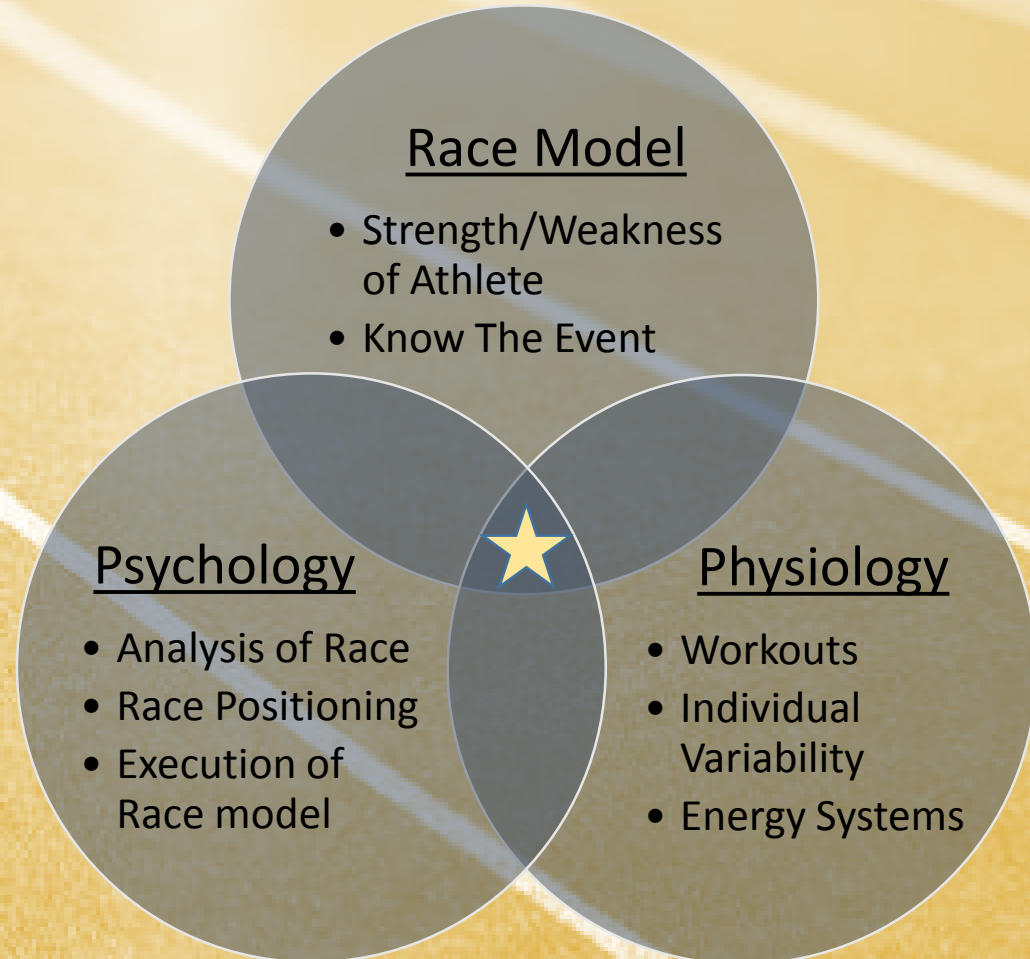


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MANTRA'S: Aristotle: “We are what we repeatedly do.
Excellence, then, is not an Act, but a Habit.”

Yoda: “ Do or Do Not. There is no Try.”

“All skills are transferable” “Character is learned & developed”

“There are always 3 possibilities, + / 0 / - ”

What does it take to “ WIN “ races !!!!!

I use a ***RACE MODEL*** that helps **BOTH** the Coach & Athlete to have common ground and converse with each other about races & racing.

It allows for a BIG picture, little picture & snapshot view of any race.
I use this for a race analysis that reveals the strenghts & weaknesses of the athlete, both mental & physical as well as MY coaching approach.

There is a Big Learning Curve when it comes to successful racing.
So much of it involves making the right decisions, ie. Execute Race Plan
Understanding “HOW” to race is as important as “being in shape” to race.

Using the RACE Models help shorten this Learning Curve.

I. What it takes to Compete/RACE:

A. 400m FINISHING SPEED!!!!

for..... 800-1600/mile-3k/3200m-3k steeple races

(OR: 500-700m if a slow, first 1/2 of race)

<u>National USA H.S.</u>	<u>60 sec</u>	<u>---</u>	<u>57 sec</u>
<u>NCAA conference</u>	<u>58</u>		<u>56</u>
<u>Top 3: NCAA finals</u>	<u>56</u>		<u>54</u>
<u>USA finals</u>	<u>54</u>		<u>52</u>
<u>World: OLY/WC/WR</u>	<u>52</u>	<u>.....</u>	<u>?</u>

Is the athlete ready for the Challenge/Journey ??? (Mental vs. Physical)???

B. Race Model 1500/mile-3000m: (break into 4 components for each race)

World Records: = almost even pace the whole way, every 400
mile=(55.6-56.0-56.6-55.2) 3k=(2:26.8-2:27.6-2:27.3)

Championship Wins: A. fast—slowest—faster—fastest

[start—settle—pickup—kick]

2012 Olympic: (58.3---60.3---56.1---39.3 [52 /400]) = 3:34

B. 1st two components slow pace—Pickup and KICK!

2016 Olympic: (66.9---69.8---55.3---38.0 [50.6/400]) = 3:50

800m Race MODEL = Controlled Fade 2 – 4 seconds (400m splits)

		<u>200</u>	<u>400</u>	<u>600</u>	<u>800</u>	
1:44	=	25	(26	26) = 52	27	
			51	1:17	53	
1:48	=	26	(27	27) = 54	28	
			53	1:20	55	

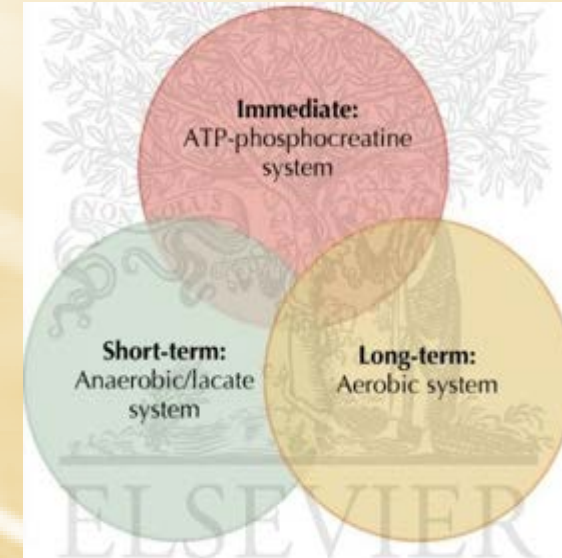
The Best article on 800m racing model/energy systems to date =
<http://www.britishmilersclub.com/bmcnews/2002autumn.pdf>

2:00	=	29	(30	30) = 60	31	
			59	1:29	61	2 SEC
2:09	=	31	(32	33) = 65	33	
			63	1:36	66	3 SEC
2:12	=	33	(34	35) = 67	36	
			67	1:42	71	4 SEC

C. Energy Systems = Creatine Phosphate...Lactic System...Aerobic System

Energy Contributions of the Aerobic and Anaerobic Energy Systems to Track Running Events

Event	Males		Females	
	Aerobic Energy Contribution	Anaerobic Energy Contribution	Aerobic Energy Contribution	Anaerobic Energy Contribution
100 m	21%	79%	25%	75%
200 m	28%	72%	33%	67%
400 m	41%	59%	45%	55%
800 m	60%	40%	70%	30%
1500 m	77%	23%	86%	14%
3000 m	86%	14%	94%	6%



Training Better Distance Runners
 Martin, D.E. and P. N. Coe 1991; Leisure Press, Champaign IL, USA p127
 Table 3.4
 The difference in energy sources that contribute to racing performances in Olympic Distance Events:
 800m: Phosphate 5%, Lactate 38%, Aerobic 57%
 1500m: Phosphate 2%, Lactate 22%, Aerobic 76%
 3000m: Phosphate <1%, Lactate 12%, Aerobic 88%
 5000m: Phosphate <1%, Lactate 7%, Aerobic 93%
 10000m: Phosphate <1%, Lactate 3%, Aerobic 97%
 Marathon: Phosphate <1%, Lactate <1%, Aerobic 99%

Event	Aerobic energy system contribution	Anaerobic energy system contribution
200m	5%	95%
800m	34%	66%
1,500m	50%	50%
3,000m	60%	40%
5,000m	80%	20%
10,000m	90%	10%

1960-1980's Model

D. What time of year to work on these systems:

American: XC: (peak aerobic, little lactic, no CP)
Indoor Track: (maintain aerobic, accelerate lactic, CP)
Outdoor Track: (Refresh aerobic, finish lactic, high CP)

European: General prep—Special prep—Pre Comp—Comp prep
Direct Competition—Major Competition

5 PACE Theory: Within a training block; train at 5 different racing paces
(200/400/800/mile/3-5k) (400/800/mile/3-5k/10k)

3 Phases of WORK	1st phase: 67%	Aerobic	33%	Lactic/CP
(Volume of Work)	2nd phase: 50%	Aerobic	50%	Lactic/CP
	3rd phase: 33%	Aerobic	67%	Lactic/CP

Example:	XC	= 5-6 x 1 mile	pace: 5:00
(miler)	Indoor	= 3-4 x 1 mile	4:40
(hard days)	Outdoor	= 2-3 x 1 mile	4:20

II. Training for 800 – 1500/mile – 3000 meters:

A. Workouts for Athletes: Train to Race..... DO NOT—Train to Train.

Racing Distance: 400/800 800/mile 800/mile/ 3000m

Energy system

Workouts

CP: flying 60m accelerations 100's sprint/jog
 100-150m sprints 200 repeats

-----100-150m-200 In and outs-----

LACTIC: fast 300's fast 400's
 5 x 300 progress to 4 x 400 2 x 4 x 400 to 6-10 x 400
 Then 3 x 500 to 2-3 x 600 2 x 3 x 500 to 3-5 x 600

-----Cut Downs.....(4 – 8 x 400's or 800's)-----

AEROBIC: 4 x 800 at 70-80% of mile 3 x mile at 70-80% of mile
 3 x 1200 at 70-80% 3 x 3000 at 70-80%

-----Cut downs---Steady state pickups---Tempos-----

Best articles on this subject = <http://bieganie.pl/uploads/Lananna.pdf>

<http://www.ustfccca.org/assets/09-symposiums/endurance-training-for-the-400-mike-holloway-florida.pdf>

B. How to integrate these workouts into a whole race:

1. old fashion/ tried and true: work each system on seperate days

Example: Mon: 8 x 400 Tues: 4-6 x 200 Wed: 3-6 x 1200 @ 70%

2. modular/tier system: one day = 3 x 1000----3 x 400----3 x 200

Example: 1000's @ 72/400 = 3:00 400's @ 60 200's @ 26

3. broken system: 1000 = 500 — jog — 300 — jog — 200

Use the broken system to establish high intensity work:

Example: 3 x 1000: 500 jog 300 jog 200

pace = 100m 15 14 13

400m 60 56 52

acutal time 75 42 26 = aprox. 2:23

jogging 100-200m 100-200m

C. Racing Skillsets:

<u>800:</u>	Start—Break—200	200—500
	500—600—700	700—Finish
<u>1500/mile/3000:</u>	Start—Break—300/400	settle-in phase
	PICK IT UP !!!	KICK & Last 80-100

Practice Racing Skillsets: (leaning how to multitask for the race)

Physical: Train each skillset according to YOUR race model's pace

Work on form in practice, eventually it becomes a natural habit in the race

Mental: Train each phase of the race with a group, 2-3 others, around you at the appropriate place on the track.

(Use a rolling start of 10 meters except for the start.)

D. Racing too HARD, too EARLY & too MUCH:

Avoid as often as possible. Biggest Mistake you will make

Who is relaxing under duress???

Note the calmness of the leader and increase in facial strain as place increases



800m Olympic Final
10meters from finish



Uncomfortable

Slight Strain

Relaxed

Significant Strain

Visible Discomfort

More Uncomfortable

III. Developing the Character of your athlete:

**Psychology
&
Physiology**

Excellence is a HABIT. All Skills are transferable
Mylin Sheath = motor skills & neuromuscular pathways:
Thinking & Choices & Anticipating

Paradox: Athlete, finishing last 100m, hears all 3 persons

Coach= Sam finish! Mom= Sam Kick! Dad= Sam Relax!

A. Learn to relax under duress: Push to Finish... but not too HARD !!!!

How???Give them a workout they can't finish but are so close...

Lactic system: week #1--2 x 4 x 400 at 60-61 pace 120 sec int./ 5 min break

week #2--same workout but 90 sec int./5 min break

week #3--same workout same rest 90 sec int./5 min break

week #4--same workout but 60 sec int./5 min break

Athlete has to keep great form and composure, only time can slow down!!

4:02-06 miler

#1 = 60-61-60-62 ... #2 = 60-61-63-63

This is mental focus not effort. If one can't handle week 4...

REPEAT THE 4-WEEK CYCLE!!!

The **ATHLETE** must be fully rested and willing/mentally ready to try this.

Who is relaxing under duress???

Note the calmness of the leader and increase in facial strain as place increases



800m Olympic Final
10meters from finish



Visible
Discomfort

Significant
Strain

More
Uncomfortable

Uncomfortable

Slight Strain

Relaxed

B. Mental side of executing the race plan:

Athlete will not execute a certain phase of a race plan!

They are Feeling the Discomfort Zone:!!!!!!

Comfort vs. Uncomfortable vs. Discomfort

What to do?... Have **“A” Conversation** = ...I Didn't feel right !!!!

Solution:

1. Keep working on it. Patience. = Next year Maybe
2. Max VO2 or Theshold 1000m workouts = increased Aerobic fitness
4 x 400m @ pace = middle of race model = lactic system
Longer rest for the High Intensity work = been working too hard
3. Eating right? ... carb/protien mix after hard days? Vitamins?
Sleep? / Stress? / Personal problems?

C. FOCUS on Race Positioning:

While keeping their race position, the Athlete is **executing** the race plan from the model or race situation.

(Study your opponets racing HABITS to anticipate their moves)

Example Videos

(Slowest) (2nd Fastest)

[2015 USA Final](#)

24.7

26.1

27.5

27.3

1:45.59

[2016 Trials Final](#)

25.0

26.5

26.6

26.7

1:44.76

[2016 NCAA 1500m Final](#)

[2016 Olympic 1500m Final](#)

NCAA Men 1500m Final 2016

	300	400	400	400	1500
Murphy	42.0 (56.0)	60.6	57.9	55.8	3:36.38
Yorks	42.13 (56.1)	59.79	57.85	58.30	3:38.06
Wynne	41.84 (55.8)	60.33	57.83	58.36	3:38.35
Kidder	42.31 (56.3)	60.46	58.58	59.33	3:40.67

IV. Continued Development of the Athlete:

A. Per Season: After the completion of each work phase run longer first.
If miles came down for the end of the phase, up they go.
As the miles go up.... pace gets slower, refresh yourself !

In the next work phase, race a longer distance first.
Don't go "kill it" right away, race for time. Win as easy as possible.
Vary your race distances till your championship meets.

B. Per Year:

To make a yearly advance you need to have a complete log of your
workouts/times/rest periods and importantly:
splits for their races.

Armed with this information you can set the next years plan easily.

Evaluate strenghts 1st, weaknesses 2nd.

Set new goals both Mentally & Physically.

Add supplemental exercises to give you a new load.

Stretching, flexibility and mobility exercises; rolling out

Before during and after workouts. Keep supple muscles.

V. Extra Coaching Resources:

Kung Fu Panda 1 & 2 DVD

The Talent Code Daniel Coyle

The Power of Habit Charles Duhigg

Good to Great Jim Collins

How They Train: Vol. 1 Fred Wilt

Middle Distances

A Logical Basis for the Training of Runners

Winning Running: Successful 800m & 1500m

Peter Coe

Racing and Training

SPECIFIC TRAINING

Alberto Juantorena

FOR THE 400-800M RUNNER

<https://beaconhillstriders.co.uk/wp-content/uploads/2015/05/Alberto-Juantorena-Training-for-400m-800m.pdf>

Mylin sheath <http://ezinearticles.com/?Neuromuscular-Pathways-in-the-Body&id=4150888>