

The Theory of Sport Training

Basic Principles

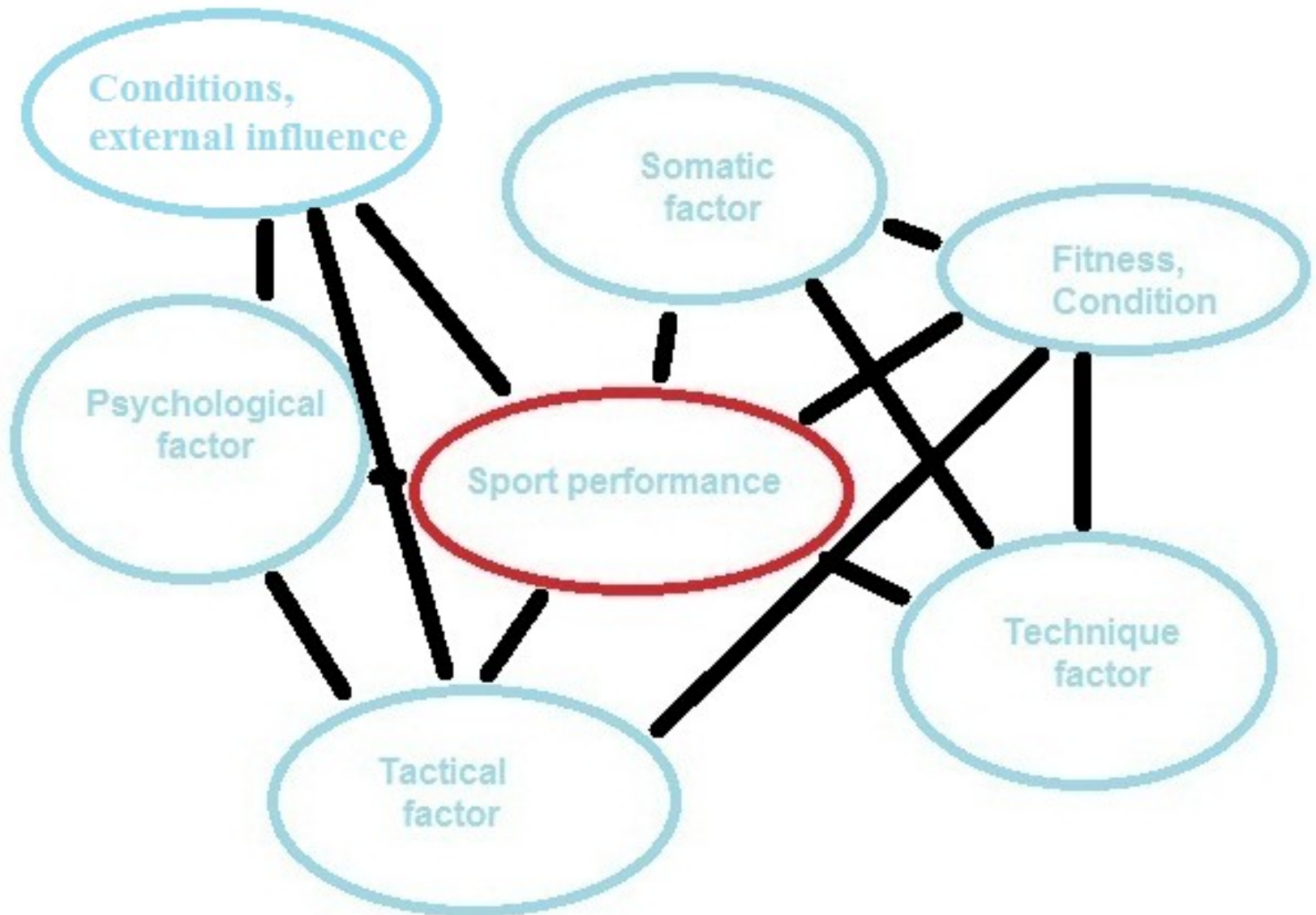
LESSON 2

Structure of Sport Performance

The kinds of sports

- Racing, competitive sport (children, youth, adults, recreational, second level performance sport, top sport...)
- Sport for health
- Sport of disable people

Structure of Sport Performance

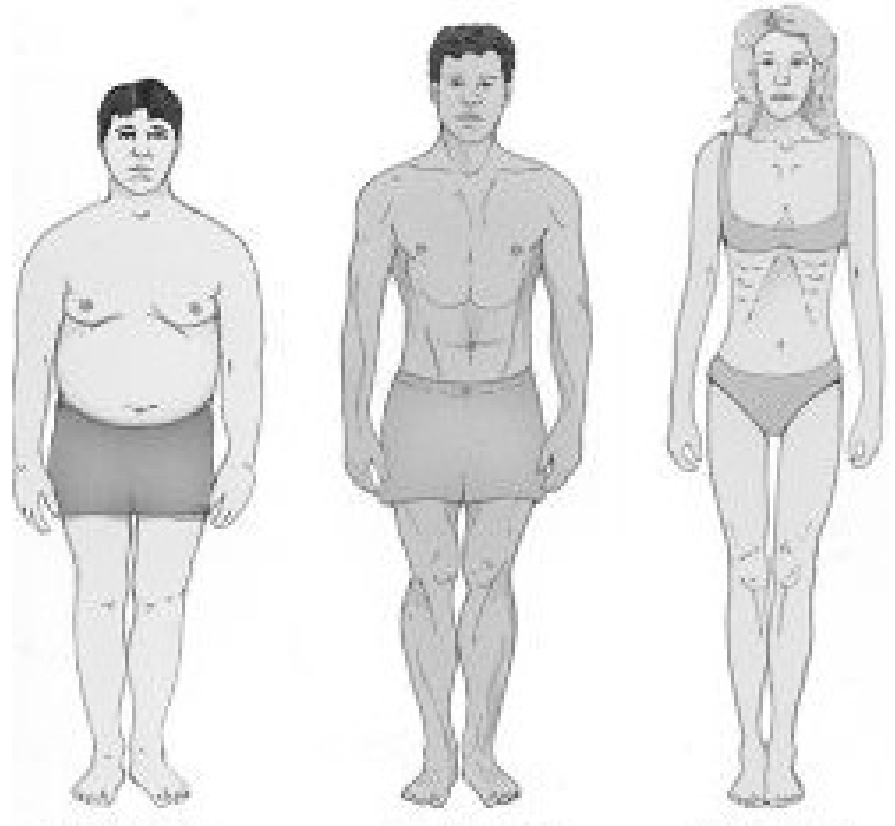


Somatic factor

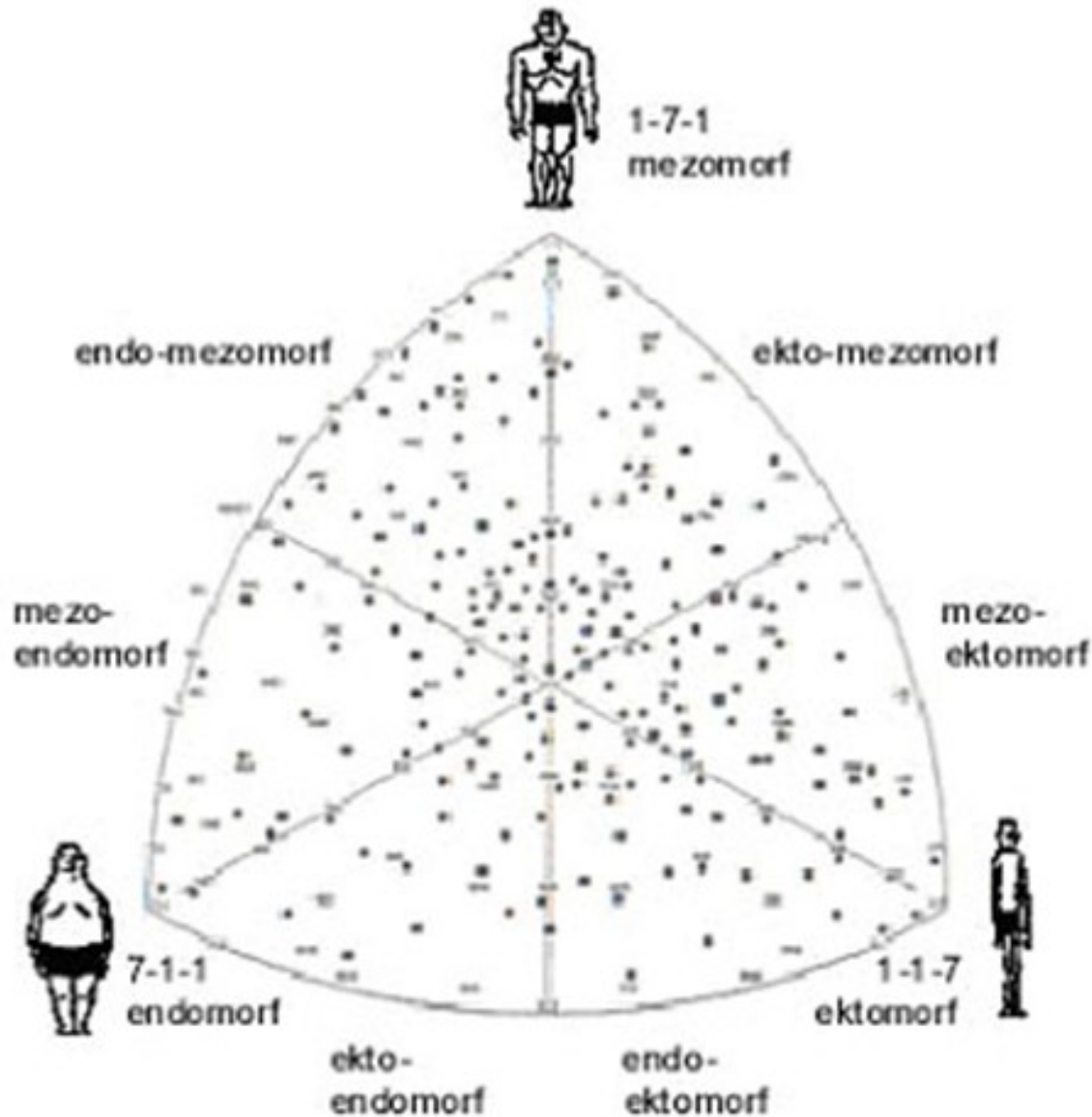
- Physique
 - external appearance of athlete (somatotyp), anthropometric dimension – H, W, Length of extremities
 - composition of body – internal environment

Type of body

- Picknic
- Athletic
- Asthenic



Sheldon somatograf



Somatic factor

- Internal environment - composition of body
- The quality of systems – cardiovascular
 - respiratory
 - neural system
 - hormonal
- Precondition to the performance start with rate of tissue

Factor of technique

- The ability to learn new movement structure and use it during competition

Condition factor

- Precondition to carry out the movement, motor abilities

Tactical factor

- The ability to use the experience and knowledge to gain advantage over opponent

Psychological factor

- The development of individuality, social abilities etc.

Classification of the SP

- Speed – strength performance
- Aesthetic – technical performance
- Endurance performance
- Games
- Combat sports
- The sport performance connected with the handling of some apparatus, animal or sport equipment
- Sensorimotor performance

Speed – strength performance



Speed – strength performance

- Sports ?
- The aim: get over the distance as fast as possible, take the highest, longest jump, lift the heaviest barbell
- Motor abilities – strength, speed, co-ordination
- Motor skills – simple structure, locomotion, (cyclic, acyclic, combined), the number of skills- small, variability ???
- Physiology – great energy cost during short time, nBM – 10 – 30000%
- Psychology – big concentration of volitional effort in short time

Aesthetic – technical performance



Aesthetic – technical performance

- Sports ?
- The aim: solution of difficult movement task
- Motor ability: co-ordination, flexibility, strength, speed,
- Motor skills: great number of skills with difficult structure, variability ???
- Physiology: not very high energy cost, aer-anaer. metabolism, load – middle, nBM – 2 – 5000%
- Psych. –creativity, courage

Endurance performance



Endurance performance

- Sports?
- The aim: get over the given distance in shortest time
- Motor ability: endurance, strength
- Motor skills: small number, structure simple , variability
???
- Physiology: middle energy cost per minute, but total cost during the whole time of race is enormous
2-5000% nBM, aer. metabolism,
- Psych: long term volitional effort and concentration, get over fatigue, persistence of effort

Games, collectives sport performance



Games, collective sport performance

- Games??
- The aim: get over active opponent
- Motor ability: all

- Motor skills: high number, structure – very complicated, variability ???
- Physiology: load middle and changing, aerobic-anaerobic metabolism, 1 – 2000% nBM
- Psych: creative tactical thinking, team motivation (team spirit), anticipation, accept the social rule of team

Combat sports, individual sports



Combat sports, individual sports

- Sports ?
- The aim: get over active opponent
- Motor ability: all
- Motor skills: great number, structure – very complicated, variability ???
- Physiology: small to high energy cost, 400-1500%
BM, aer- anaer. metabolism
- volitional activity, the ability get over pain, control of aggression, decision under deficit of time, anticipation

The sport performance connected with the handling of some apparatus, animal or sport equipment



The sport performance connected with the handling of some apparatus, animal or sport equipment

- Sports ?
- The aim: get over distance, optional exercise in shortest time
- Motor ability: all
- Motor skills: from low to very high number, structure – very various, variability ?
- Physiology: energy cost 500-1000% nBM, rather aer. than anaer. met.
- Psych: decision under time deficit, get over the fear, scare, courage, risk, danger, solve the unexpected problems

Sensorimotor performance



Sensorimotor performance

- Sports ?
- The aim: the most accurate hit of the target
- Motor ability: co-ordination
- Moto skills: small number, structure simple, variability???
- Physiology: energy cost low, 400-700% nBM,
- Psych: high level of concentration,