HISTORY, PRINCIPLES AND FOUNDATION OF PHYSICAL EDUCATION

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Introduction

The brief history of physical education would start in just about 1820 when schools focused on gymnastics, hygiene training and care and development of the human body. By the year 1950, over 400 institutes had introduced majors in physical education. The Young Men's Christian Association launched its very first chapter in 1851 and focused on physical activities. Colleges were encouraged to focus on intramural sports particularly track, field and football. But physical education became a formal requirement following the civil war when many states opted to pass laws that required schools to incorporate a substantial physical education component into their curriculums. But it was not till 1970 that an amendment was made to the Federal Education Act that allowed women from high school and college to compete in athletic competitions. Sex-based discrimination was completely outlawed from government funded programs at this point.

Physical Education is a course taught in school that focuses on developing physical fitness, which could be thought of as having the ability to perform and enjoy day-to-day physical activities with ease. Kids also gain knowledge of movement and an ability to develop and refine skills necessary to participate in a wide range of activities, such as soccer, basketball, or swimming. Regular physical education classes prepare kids to be physically and mentally active, fit, and healthy into adulthood. An effective physical education program should include engaging lessons, trained P.E. teachers, adequate instructional periods, and student evaluation.

Physical education should include instruction that helps students develop physical skills and confidence. For example, elementary and middle school curriculum should include activities that help kids obtain and improve skills such as: running, catching, throwing, and striking, which could be applied to sports such as baseball, volleyball, or karate. Another example would be balancing skills that could be applied to dance or gymnastics. High school curriculum should focus on lifetime sports skills for example tennis or aerobic dance, with a secondary emphasis on team sports.

Physical Education in College

College athletics received a major stimulus when a National Collegiate Athletic Association was created in the early twentieth century's. There was a rise in popularity of sports within colleges and universities and funding greatly increased. Colleges took great pride in their athletic programs and sports scholarships became a norm. There was also a surge in people who enrolled in sports education programs to meet the growing demand for professionals in the field.

Decline in Physical Education

But this is not meant to imply that the history of physical education has been all rosy. Late in the twentieth century there was certainly a decline in the commitment to physical education. The growing offering of extra subjects and electives in schools means that the shift was focusing away from physical education and towards academics. The country also faced a recession around

1970 and 1980 and the dearth of government funding means that physical education programs were often the first to be cut from schools and universities.

In a broader context, physical education is defined as a process of learning through physical activities designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active living, sportsmanship, and emotional intelligence. Thus, Physical Education is not only aimed at physical development but also includes the development of the individual as a whole.

With Physical Education students will acquire a variety of expressions are closely related with the personal impressions of fun as well as various expressions of a creative, innovative, skilled, have the physical fitness, healthy habits and have the knowledge and understanding of human motion. Physical education is a course that focuses on developing physical fitness in the youth. Same as Music, Gym and Math, this is a required course in primary and secondary school. Most of the time, it is also required in college. To understand what physical education, we must understand physical fitness which it intends to promote. Physical fitness is comprised of the following:

Cardiovascular fitness - This is the ability of your heart and lungs to deliver the oxygen your body needs for its daily tasks. This is the fitness component that is addressed by such aerobic activities as brisk walking, jogging, running, dancing and swimming.

Strength - This is the amount physical power that a muscle or group of muscles can use against a weight or resistance. This is addressed by such activities as weight lifting and body weight training.

Endurance -This is the ability of a muscle or group of muscles to repeat movements or hold a position over a certain period of time. Long-distance running is an activity that helps to develop endurance.

Flexibility - This refers to the body's range of movement. Pilates, yoga and gymnastics help promote this particular fitness component.

Body composition - This refers to the ratio of the body's fat component vs. its lean mass. Exercises that address cardiovascular fitness, strength, endurance and flexibility also promote the reduction of fat and the build-up of muscle.

Students of Music, Gym and Math often have to be challenged, in order to be interested. To break the monotony of the traditional Physical Education courses, many schools have updated their programs. These are some of the trends that are pervading the Physical Education programs across the country:

The inclusion of activities that the students can use for life, like brisk walking, Frisbee and bowling. The principle behind this is that if students learn to like these activities early, they can easily adopt these into their current lifestyle and even carry them into adulthood. The inclusion of non-traditional sports - This makes Physical Education a cultural immersion at the same time. It teaches cultural sensitivity and can be a lot of fun.

Patterning the Physical Education program after health club programs - The advantage of this is that the student is exposed to a whole variety of activities that can only make Physical Education more fun for her. Here, the student may do Tae-bo one day and do yoga the next. The

combination of cardio and strength training activities also promote overall fitness. Adopting a sports league model - In this scenario, the Physical Education class is run like a sports league. Students take turns playing the roles of referees, players, scorers and coaches. This aims to develop the students into better-rounded, balanced individuals.

Including martial arts and self-defense - Not only do these activities capture the interest of the students - they also promote their safety and well-being. This is a practical improvement on the usual Physical Education program. Inclusions of health and nutrition topics - Most Physical Education programs in the US include health and nutrition topics such as the following: hygiene, stress and anger management, self-esteem and bullying. Some states even require that Physical Education teachers are also certified as Health teachers.

Exposures to technological enhancements - Students are taught how to use modern gym equipment as well as other fitness-related devices such as pedometers and heart-rate monitors. Although the primary goal of Physical Education is still to promote the physical fitness and well-being of each student, all these trends and advancements have changed the face of Physical Education forever. Music, Gym and Math will never be the same!

But recent awareness of the need for balanced curriculums particularly given the national concern over the state of obesity and children's attention towards non-physical activities like video games has brought physical education back in the spotlight. The government has re-signaled its commitment to physical education by making it mandatory in public schools in early classes. But it remains an elective at the high school level. One of the most interesting developments in the history of physical education has been how the definition of physical education has evolved. While it only encompassed traditional sports in the beginning, it now includes several less physical activities such as yoga and meditation which are considered critical to helping students develop a sense of control in such a stressful age.

Learning About Health and Wellness and Developing Social Skills

Physical education classes should include lessons on the health benefits of regular exercise and healthy food choices along with the health risks associated with inactivity and unhealthy food choices should be an integral part of the physical education program. For example, students of all ages might be asked to dedicate themselves to making a few small improvements in diet and exercise for a period of six weeks. They would be expected to make the changes and journal about how they feel during the six weeks. At the end, they might be asked to reflect on how healthy changes affect performance and mood.

Physical education should also help students develop social skills. For example, asking students to play team sports helps them learn to recognize and respect others, contribute to a team goal, and socialize as a player. Physical health is critical for overall well-being and is the most visible of the various dimensions of health, which also include social, intellectual, emotional, spiritual and environmental health. Some of the most obvious and serious signs that we are unhealthy appear physically. Addressing this dimension is crucial for anyone attempting to sustain overall health and wellness.

Needs of Physical Education

All children need physical education. It is integral to the complete education of every child. The quality physical education program is planned and provides instruction which provides participants with many benefits.

1. Improved learning aptitude

2. Improved Physical Fitness

3. Improves cardiovascular endurance, muscular strength and endurance, flexibility, mobility, and body composition.

4. Improves power, agility, reaction time, balance, speed, and coordination

5. Skill Development

6. Children learn and practice motor skills in a safe environment. This allows for satisfying and successful participation in physical activities like individual and team sports.

7. Stress Reduction

8. Regular physical activity helps to release tension and anxiety. It also helps to build resilience and emotional stability.

9. Improved Self Confidence

10. As children master skills they become more confident in their abilities. When children are successful in a safe learning environment they become more confident, assertive, self-controlled, and independent.

Defining Physical Health

Traditional definitions of 'physical health' prior to the onset of modern medicine would have considered someone physically healthy if he or she was not stricken with a serious illness. With modern medical innovations came longer life spans, which changed the way we define physical health. Today's definition can consider everything ranging from the absence of disease to fitness level.

While physical health consists of many components, here is a brief list of the key areas that should be addressed:

- Physical activity - includes strength, flexibility, and endurance
- Nutrition and diet - includes nutrient intake, fluid intake, and healthy digestion
- Alcohol and drugs - includes the abstinence from or reduced consumption of these substances
- Medical self-care - includes addressing minor ailments or injuries and seeking emergency care as necessary
- Rest and sleep - includes periodic rest and relaxation, along with high quality sleep

Components of Physical Health

Below are ways that each key area of physical health can be addressed through lifestyle choices:

Physical activity: Most healthy children and adults should be active on a daily basis. This should be a mix of both leisurely physical activity and structured exercise. Examples of leisurely physical activity include hiking, biking, and walking. Examples of more structured forms of exercise include strength training, running, and sports.

Nutrition and diet: A well-balanced diet should contain carbohydrates, proteins, fats, vitamins, and minerals. Restricting specific nutrients should only be done under the supervision of a licensed health professional. Fluid, ideally in the form of clean water, should be regularly consumed. Meals and snacks should be consumed throughout the day, and portion sizes should be sensible.

Alcohol and drugs: Substances that alter mood or other bodily processes should be limited or avoided. Those with addictive tendencies or other health risks should consider complete abstinence from these substances.

Medical self-care: Basic items, such as bandages, lozenges, and over-the-counter pain-relieving medications, should be easily accessible from home. Long-term coughing, fevers, or other ailments should be addressed through primary care. Emergency treatment should be sought when signs and symptoms are significant or life-threatening.

Rest and sleep: While regular activity is essential for physical health, allowing the body to rest is just as important. Spending time relaxing or taking short naps can help rejuvenate the body. Sleep should take place in a quiet, dark environment and should last approximately 7-9 hours. Consistent sleep that is much shorter or longer than this duration, or is low quality, may need to be addressed by a health professional.

Physical Health Assessments

If you have visited a physician or personal trainer recently, you might know that assessing physical health can be done in a variety of ways. The following measurements can be used to test certain aspects of physical health.

- General assessments - includes weight, body mass index (BMI), and reflex tests.
- Disease risk factor - assessments includes blood pressure, cholesterol, and blood glucose tests.
- Fitness assessments - includes body composition (body fat percentage), flexibility, muscular strength, and endurance tests

Here are some simple, yet effective, examples of the various ways you can assess your own physical health:

Heart rate: This can be taken by pressing lightly on the underside of the wrist on the thumb side. Count the number of beats you feel in 15 seconds and multiply by four. The average adult has a heart rate between 60 and 100. Lower heart rates are typically the result of advanced levels of physical conditioning. Heart rates outside of this range, especially when accompanied by fatigue, shortness of breath, or dizziness, may be signs

Emotional Impact of a Cardiac Event

Roughly 70% of patients get an acute stress reaction to their event to their event.

• This is a normative adjustment reaction that usually resolves within 8 weeks post event, resolves within 8 weeks post event.

• Up to 25% of cardiac patients experience clinical depression, man y y remains depressed at 1 year.

• 17% to 40% suffer from subclinical depression; up to 40% of this group develops major depression later.

• Approx. 33% experience severe anxiety post event; up to 25 % have Panic Disorder. • Up to 50% experience marked irritability.

Definitions of Physical Education

Physical Education in the care and development of the human body, stressing athletics and including hygiene.

An element of an educational curriculum concerned with bodily development, strength, physical co-ordination, and agility.

Training of the bodily organs and powers with a view to the promotion of health and vigor.

Training in the development of and care for the human body; stresses athletics; includes hygiene

Training in the development of and care for the human body; stresses athletics; includes hygiene

Knowledge acquired by learning and instruction; "it was clear that he had a very broad education"

Systematic instruction in sports, exercises, and hygiene given as partof a school or college progra m.

The **main goals** of the **physical education** program are to develop motor skills, applied knowledge, a positive attitude and **physical** fitness. In addition, the program assists students in developing teamwork and individual skills that are transferable to other areas of their lives. The program recognizes a wide range of abilities and, as such, is student- centered. It is comprised of varying activities with a progression of difficulty and levels of achievement. This philosophy contributes to an active, healthy and productive lifestyle.

Physical education helps us to develop our mental awareness, skills in sports, and for us to be aware on how being physically fit is very important.

Physical education, **PE** is an educational course related to the physique of the human body, taken during primary and secondary education that encourages psycho motor learning in a play or movement exploration setting to promote health.

Physical education which is commonly a part of the curriculum at junior / senior college, includes training and maintaining one's physical body through educational means. It is also about sharpening overall cognitive abilities and motor skills via athletics, exercise and various other physical activities like martial arts and dance. Here are some of the benefits that highlight the importance of physical education.

Why Physical Education is Important

With obesity at an all time high, schools and universities alike are encouraging students to take part in activities that require physical involvement, be it in the form of exercise or sports. Some even come with their own fitness centers to give students a chance to enroll in their many programs. Campuses today that are conscious about such issues, stress on the importance of

physical education by making sure students are constantly taking part in different activities and sport functions. Here are the reasons why a child should be health-conscious at a younger age.

Developing One's Motor Skills

Being physically active means strengthening one's cognitive processes and sharpening one's skills as a result. Exercising is a great way to keep the body in shape, and help it fend off illness while keeping kids at a healthy weight if they're considerably fit. Exercising doesn't mean pushing the body to do strenuous workout routines, but also taking part in other areas of physical fitness like aerobics, swimming, tennis, badminton, and the sort.

Fueling Self-Confidence

Kids when overweight tend to blend into the wallpaper, often being ignored by others or just not being the social type to engage and be of assistance. They're usually the target of verbal abuse and teasing, where physical education classes are often skipped with weak excuses. They can't see themselves in pretty / cool clothes because it is difficult to go out shopping or find their size. So they tend to wear over-sized outfits to hide their unsightly bulges, or avoid shopping all together. By being involved in physical activity, they can be sure that a dietitian could care for their eating habits, or a school counselor that can advise parents on being more health-food conscious and supportive to their kids when it comes to being more active and outdoorsy. It would build on their self-esteem when they reach a body type that doesn't fall in the overweight category. It helps them take part in events, be more open to team building activities, and gives them a fair idea of how to take care of their bodies.

Learning Right and Wrong with Food Types

Parents if not conscious about what they eat, tend to automatically feed their kids unhealthy foods. It is wise to hold parent-teacher conferences about healthy eating and how it is affecting kids and their performance in junior / senior college. Physical education classes also have sessions on healthy food habits and hygiene (which is also another important area). Kids will know from a young age about the right and wrong kind of foods, and how to limit such eatables before they grow and not even realize it. Teachers in charge of such classes should show graphic representations of what they speak of, to imprint the idea even more so in the minds of children both young and old.

Hygiene is everything

Physical education classes may not always stress this point, but a lot of them do. It is an important habit to remain clean and fresh everyday, where kids tend to be messy and unclean when they're young. Classes stressing on the importance of regular baths, keeping fingernails clean, putting sweaty clothes away for cleaning and so on, are a must in any school. Once they have that drilled into their minds, they will follow it religiously as they grow older.

Physical education is an important part of the learning process, and without it we'd have lazy, obese, and unhygienic kids multiplying all over the world. Parents need to take responsibility for their kids as well as those in charge of physical education, when it comes to being and remaining physically active.

Aims

The aims of physical education are to enable the student to:

- appreciate and understand the value of physical education and its relationship to a healthy, active lifestyle
- work to their optimal level of physical fitness
- become aware of movement as a creative medium connected to communication, expression and aesthetic appreciation
- develop the motor skills necessary to participate successfully in a variety of physical activities
- experience enjoyment and satisfaction through physical activity develop social skills that demonstrate the importance of teamwork and cooperation in group activities
- demonstrate a high level of interest and personal engagement showing initiative, enthusiasm and commitment
- show knowledge and understanding in a variety of physical activities and evaluate their own and others' performances
- demonstrate the ability to critically reflect upon physical activity in both a local and intercultural context
- demonstrate the ability and enthusiasm to pass on to others in the community the knowledge, skills and techniques that have been learned.
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Objectives

The objectives of any MYP subject and of the personal project state the specific targets set for learning in the subject. They define what the learner will be able to do, or do better, as a result of studying the subject. The objectives of MYP physical education are split into five sub-groups that correlate with the final assessment criteria.

A. Knowledge and Understanding: At the end of the course students should be able to:

- demonstrate an understanding of the principles and concepts related to a variety of physical activities
- understand the importance of physical activity to a healthy lifestyle recall and understand the various components that contribute to health-related fitness.

B. Movement Composition: At the end of the course students should be able to compose and communicate meaning and ideas through movement.

C. Performance and Application: At the end of the course students should be able to:

- display acquired motor skills necessary to perform a variety of physical activities
- apply tactics, strategies and rules in both individual and group situations
- use movement concepts appropriately in relation to themselves, others and their physical environment
- apply health and fitness principles effectively through a variety of physical activities.

D. Social Skills: At the end of the course students should be able to:

- work cooperatively
- respect themselves and their social and physical environment
- support and encourage others (towards a positive working environment)
- develop attitudes and strategies that enhance their relationship with others
- show sensitivity to their own and different cultures.

E. Personal Engagement: At the end of the course students should be able to:

- show initiative, creativity and a willingness to improve themselves
- take responsibility for their own learning process and demonstrate engagement with the activity, showing enthusiasm and commitment
- show self-motivation, organization and responsible behavior
- recognize, analyze and evaluate the effects of a variety of physical activities on themselves and others
- reflect upon and evaluate their own performance in order to set goals for future development.

Importance of Physical Education in present era

We know that healthy mind lies in healthy body. Now a day's video games and computer games have taken the place of our traditional games. Man does not have time to play indoor or outdoor games in the modern age of technology. Sport is important for man's all round development and for living healthy life. Today very fast changes are seen in the field of physical education. First of all man gets physical education and then gets social education Thus man's social education has the basis of physical education. Today it has become technological education. Thus very deep change is seen in education. The education has become so much dependent on technology that man does not spare enough time to take care of his or her body which is a very valuable gift of nature to man. Man has stopped physical exercises because of technological tools and other facilities. Previously man used to remain healthy by playing various outdoor games and thereby doing physical exercise. Now the games are played on computer so the life has become idle. The body has become the storehouse of various diseases. Physical education makes the immunity of our body stronger and so makes body more beautiful. In today's world physical education is essential. Man can live healthy and better life only by doing physical exercise. Today new and new diseases are emerging and have made big harm to man's body. Man's life has become dependent on medicines. For example digest medicine, medicine for excretion, medicine for sleep, etc. Because of these medicines man has become like a walking robot. In such condition is it fair to waste this body like this? How sad it is that man has time to do the service of technical gadgets like car, freeze, television but he does not have time to take care of his valuable body. Through physical education man can live his day to day life healthily. Physical education plays

important role in man's development and proves helpful for better physical, mental, social, emotional and spiritual life. Here the author wants to introduce the importance of physical education in our modern life.

1 Helpful for Natural Development: Man's body develops very naturally from the prenatal stage to the old age. When this natural development is accompanied with some physical exercises it improves the energy level of the body. Considering this fact even special body exercises are suggested for the pregnant women. In the same way there are different types of exercises for different age stages like infant, adolescent, young, adult and old age. This exercise becomes like a supplement to natural development in scientific way. The balanced emotional development is possible only with good body health and development. It can be considered as a fundamental use of physical education.

2. Body Charm Beautiful body is considered as the first step towards success in life. Therefore people do so many efforts for well figured body. The beauty of the body depends on healthy muscles. Body can be well shaped through physical exercise just as an expert sculpture brings out a beautiful idol by carving an ordinary stone structure. The secret of charming body lies in the muscles of the body. From the very ancient time sculptures have been giving the importance and value to the beauty of the body. Keeping that image of beautiful and handsome body in our mind, we can also mould our body by giving enough exercise to the muscles. Thus we can get proper advantage of physical education.

3 Strong and Healthy Body We can make our body stronger and healthier through physical education. The significance of strong body lies in the happiness that we get after doing some hard physical or mental work. In other word for a strong person hard work does not remain a matter of tiredness. The reason of physical weakness found in the society is that physically man is not strong and healthy. Man feels weakness and tiredness even after small physical work. Its psychological effect takes place that man does not stand for any physical work. Therefore on the large scale the society has to suffer as a lack of work efficiency and willingness for that. But the truth is that the peace and happiness of fresh life is possible only through hard work. It is physical work and effort through which we can fulfill our all the basic needs. Strong body is always healthy. Strong and healthy body can protect itself from various diseases because its immunity also remains strong. Healthy man can suffer hardness of all the seasons whether it is hot or cold or rainy season. In short, he can enjoy the pleasure of all things in nature.

4. Boosts the Self Confidence There is no doubt about the advantages of physical education for strong and healthy body. Therefore the saying is also heard that healthy mind resides in healthy body. A healthy body is the gateway for reaching the Supreme soul. Strong and healthy body can give boost strength and increases the self confidence. And for the man who is full of self confidence even the problems become a game playing. He can pass his life with full happiness and peace of mind. It will become a service to humanity, if this psychological secret of advantage of physical education is spread and attract the people towards it

5 Development of Discipline Physical educations develop not only self discipline but also supports to maintain external discipline on man. Discipline is as important as the food for life. People with uncontrolled behavior deny any kind of restriction and control. But they don't know that the real freedom lies in restriction. The pain of restriction itself becomes the pleasure of freedom. Physical education is a never failing key to bring discipline. Self discipline comes in man while concentrating on and following different rules of the games. This self discipline comes into action through different activities and arts and thereby creates interest in life. Well organized life style leads man towards living happy and peaceful life.

6. Character Building in Life The presence of the three qualities- energy, character and beauty in life is very important for being a complete man in Indian culture. Energy and beauty are the direct advantage of physical education but indirectly it builds character too. Character can be developed well by physical education. The process of character building through physical education is so gradual that it cannot be seen directly but can be felt. All the weaknesses from man's life fall down like the dry leaves from the tree. The ideal form the culture and the civilization of any nation and society is developed through good character. All the vices like violence, wars, jealousy, unhealthy competitions, hatred, etc. give way to the character.

7. Constructive Use of Time It is man's natural desire that he or she wants relaxation from work. In the state of relaxation man neither works too much nor takes complete rest but he combines both the work and the rest. In combining the rest and the work, most of the people waste time in gossiping, playing card games, and other useless activities. Physical education provides new option in place of such useless activities. And this option is always healthy. Today there are entertaining games and skills available for playing. The saying "One way for Two" comes to true when man gets both the physical advantage and the entertainment through physical education. In this way physical education becomes the best means of entertaining activity or time pass during the spare time.

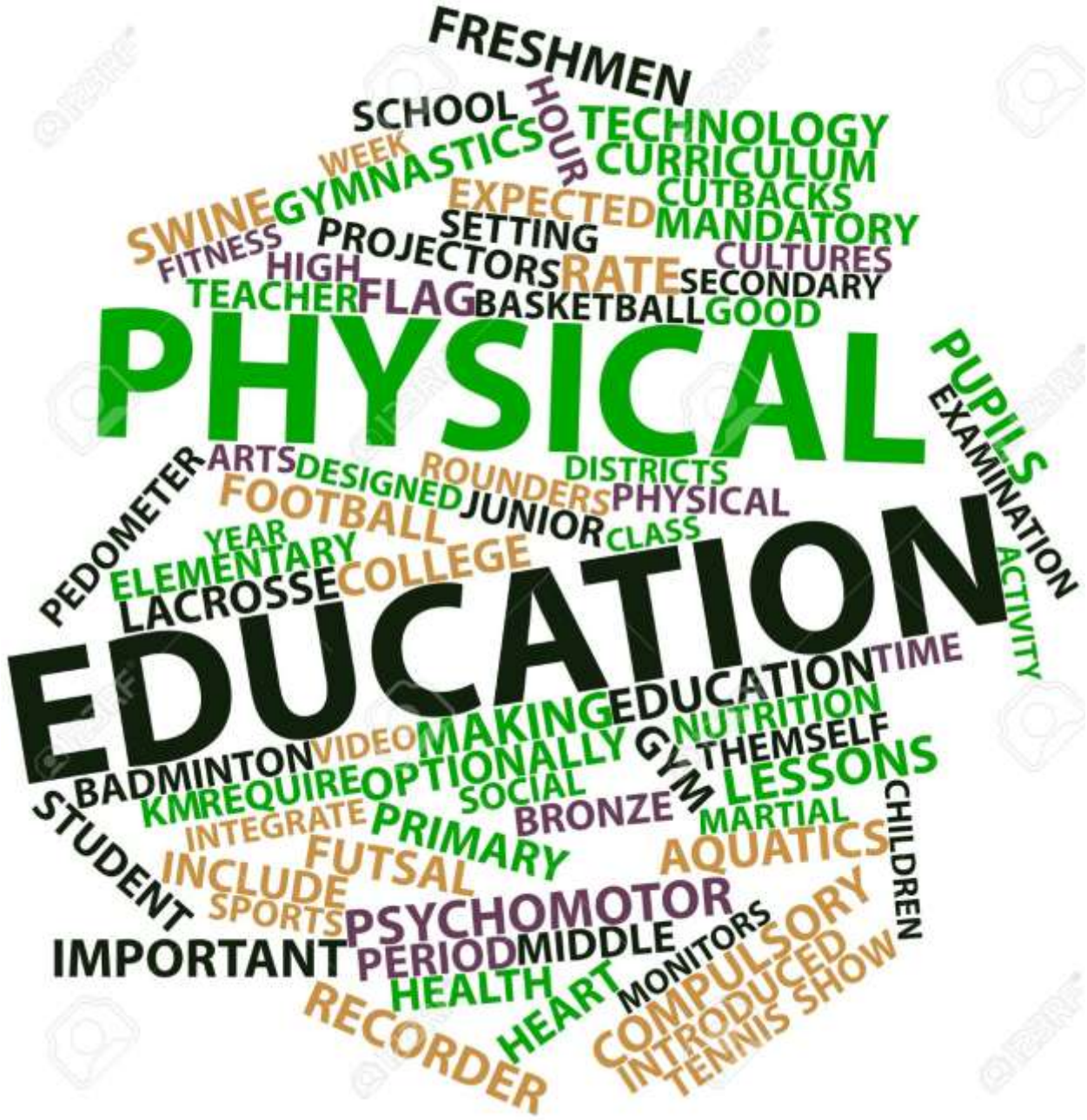
8 Helpful for Awareness in Society Physical education is helpful for creating intimacy with society. In physical education team spirit is very important. Team is like a family. It is a miniature form of society. Team is the centre where the person gets opportunity to know the importance of co operation with other people. According to the saying "With One Hand No Clap", the person cannot get complete advantage of physical education on his own. This limitation motivates man to co operate with others. Thus man develops faith in the feelings of communality and oneness with others. This faith becomes a part of man's character and connects man with his or her family, society, nation, and the world. Physical education prepares an ideal citizen unknowingly and unintentionally. And such ideal citizen breathes in the air of freedom in the society being free from limited narrow mindedness. He creates happiness not only for himself but also for the society. Thus people devoted to the society, nation and the world can be prepared through physical education.

Need and importance of physical education in modern era are as follows:

a. A physical educator considers the child as a storehouse of various mental, social and physical qualities. He tries to develop all the innate qualities with the help of various physical activities, which are parts of physical education.

b. Various kinds of physical activities help in developing the organic system and functioning of the body. They also improve the abilities of human being to resist fatigue, to remain active and perform efficiently.

c. Physical activities help in developing various kinds of intellectual qualities inherent in a child. Thus with the help of physical education, it is possible to develop children intellectually.



d. By participating in various kinds of physical activities, children becomes emotionally mature.

e. Generally, more than one player participate in physical activity and when people' of different background and society come into personal contact with each-other, they learn to work in groups, with utmost co-operation and co-ordination.

f. By participating in physical activities, qualities of group efforts, loyalty to the team and strong ties can be developed in participants. These qualities help in building a good moral character of the individuals.

g. To participate in any event, all the players are required to learn the fundamental skills and rules of the games as well. If they do not work according to the rules, they can be disqualified even from the game.

h. Human body is a composition of muscular and nervous systems, and to keep the body in proper condition, it is necessary to keep these systems fit and in good working conditions.

These systems will function properly if there be a kind of co-ordination between them. Such kind of co-ordination can be developed with the help of various physical activities. Thus, physical education helps in developing the neuro-muscular systems of the human body.

i. In all the team sports or in those activities in which more than one player participate, one player is appointed as the captain who functions as a leader.

When such kind of act is done at school level, player working as a leader gets various qualities of self-confidence, intelligence and loyalty, which helps him not only in school time but throughout the life time.

j. When children or any individual participate in any sport or physical activity, the first thing that he is taught is that they are playing or participating in the game not to win but to perform well.

k. Today, activities of physical education are being organized on national as well as on international levels. When players of more than one country take part in the games, they come in personal contact with each other.

On the basis of above discussion it can be said that physical education plays a very important role in the modern world and everyone must participate in any kind of physical activity.

Misconceptions about Physical Education.

Physical Education

This, at least in the UK, is a compulsory curriculum subject. It's main aim is to foster physical development and movement competence. It involves students in a wide range of physical activities with the ultimate aim of encouraging and preparing them for a active and healthy lifestyle beyond school.

The idea that physical education is just a break from the more serious business of an academic education misses the whole point of PE and severely undervalues it's part in developing the whole of the pupil. Physical education isn't a break from cognitive work, it fully embodies it and is unique in the physical development of a child. Physical education rejects the dualism of the mind and the body being two separate entities, but views that they are intertwined and for true potential to be achieved, both must be developed and maintained.

At its heart physical education promotes physical literacy. *'Physical Literacy can be described as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life.'* (Whitehead, 2014). Although the development of physical literacy is a lifelong task, teachers of PE are uniquely placed to promote it. However, high quality physical education can also assist in the mental, emotional and social development of a child. It promotes education as a whole and if approached in the right way can foster self-esteem and confidence.

The current Department for Education purpose of study for Physical Education is:

'A high-quality physical education curriculum inspires all pupils to succeed and excel in competitive sport and other physically demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect.'

I think making sport such a focus of curriculum PE is a key reason leading to misunderstanding of the nature of physical education and being counterproductive in its overall aims. However sport does have its place in Physical Education.

Sport

In my mind you don't need to called it 'competitive sport' as all sport in its nature is competitive. Individuals, pairs, small groups and large teams compete against each other with the sole objective of winning.

Sport Accord, which is the umbrella federation for both Olympic and non-Olympic sports uses the following criteria, determining that a sport should:

- *have an element of competition*
- *be in no way harmful to any living creature*
- *not rely on equipment provided by a single supplier*
- *not rely on any "luck" element specifically designed into the sport*

There are opposing views on the competitive nature of sport, probably derived from the original *desport* meaning leisure. There has been a movement to widen the definition of sport to include all physical activities and therefore widen participation. The Council of Europe includes all physical activity, including those participated for fun, however this loses the essence of what sport is.

Unesco definition of sport amalgamates a lot of ideas. It is understood as *all forms of physical activity that contribute to physical fitness, mental well-being and social interaction. These include play; recreation; organized, casual or competitive sport; and indigenous sports and games.* This then can lead to more confusion and misunderstanding about what sport exactly is and what it contributes to physical education. However I am very much in favor of many aspects of their policy to promote high quality physical education.

The key issue is that many people think sport **is** physical education, including those in government. I can see how that would come about. It certainly was my experience of my PE at school as it was for many others. It probably still is for many. This comes from teachers strengths and experiences, confidence in teaching, facilities, equipment and resources. This raises issues about training and qualifications for PE teachers. I don't think my sports science degree and PE PGCE prepared me well enough to teach PE. Sport shouldn't be the predominant experience within physical education and it certainly shouldn't be confused with physical education, which has a far wider scope, especially focusing on physical competence, skilful movement and perseverance.

However should sport be exclusive to after school provision? I think not. This narrows the chance at participation and makes it elitist in many ways. Therefore is only accessible to the most talented students or those supported by parents. The question of whether sport should be part of curriculum PE and/or extra-curricular provision is the wrong one. It is whether competition should be. If your answer is no, then you need to think of many of the practices we have in education, our examination system and our society as a whole, but perhaps that is a topic for another blog.

Recreational physical activity

If you take part in what is commonly thought of as a sport, without the competitive element, for health benefits then it is recreational physical activity. Swimming, cycling and running are great examples of this. It still has structure, but less so than sport. It is a self-chosen activity engaged in for sole purpose of enjoyment and health.

It has it's place within PE, especially if lessons are based around showing how students can participate in recreational physical activity, how they can bring them into their life and also the benefits to their overall health and wellbeing. However a physical education curriculum that is full of recreational physical activities, especially with older students, devalues it. Therefore we must be careful when and how we engage students in it. Doing is important, but then so is knowing. Ensuring children are competent and confidence in movement through physical education will hopefully allow them to pursue recreational physical activity out of school and part of their daily lifestyle.

Play

Play is the work of children. It consists of those activities performed for self-amusement that have behavioral, social, and psychomotor rewards. It is child-directed, and the rewards come from within the individual child; it is enjoyable and spontaneous

For some reason this one is never mentioned in the media. It is overlooked, but is hugely important in the physical and social development of the child. Whilst PE in many schools may be two hours a week (although this is in decline), this is low in comparison to the amount of break time students have over the course of the week. How much time, effort, money and resources are

put into ensuring an environment that encourages children and students to physically play, especially at secondary schools?

There may be the need for physical education to remind older students how to play and encourage them how to do this in their own free time, especially within school. Ensuring there are enough places for children to play outside of school and encouraging it is essential in supporting what is being taught in physical education.

Conundrum

A lot of comments I read in the news about physical education, especially about what it is and it's importance within school is in my mind fundamentally wrong. Most people confuse sport with physical education and that misconception can lead to bad practice both from teachers of PE and from those who hold power to make decisions within education. There is minimal talk in the press on how to improve the quality of PE. Instead it is focused on why can't state schools produce more world class athletes like private schools. One of the reasons why there are so many issues with poor levels of health and activity is because there is no consensus and understanding. Until this is achieved, especially at a political level and in the media, then real debate and discussion on how to improve provision of physical education will never truly occur.

The one thing that can do all these things and much more is daily physical education. Training your body how to move is critical to physical, mental, emotional, social, and financial well-being. The reality is the vast majority of children and adults are not getting enough daily physical activity. This is leading to dramatic increases in Type 2 Diabetes, Obesity, and other chronic diseases.

Did you know that if a person develops Type 2 Diabetes before the age of 30 the personal lifetime medical costs will be over $300,000? This is the out of pocket expense to treat just one chronic disease! People getting Type 2 Diabetes before age 30 will shorten their lifespan by 12-15 years and they will be in poor health..

A daily physical education program lasting 20-30 minutes can decrease the risk of getting a chronic disease by half. Physical Education improves behavior, focus, intelligence, self-esteem, and health. Even though we know the many benefits of physical education the vast majority of children do not participate in daily physical education. Many adults have misconceptions about physical education

from their experiences as children. This report will discuss several of these misconceptions and provide information on why physical education should be part of everyone's daily routines.

Youth Sports are Physical Education

Youth sports are great and our children learn a lot from these activities. Unfortunately, youth sports have become highly competitive and specialized. We see children participating in one sport year round starting at a young age. Children are also participating in select or travel teams at 10 years old or younger. These factors and others lead many children to drop out of youth sports. By age 12, more than 70% of all children do not participate in youth sports. This means that few children are involved in physical activities during their leisure time.

Researchers also found that during youth sports practices, most children get less than 20 minutes of physical activity during a 1 hour practice. Much of practice time is spent working on strategy, team concepts, or sport specific activities.

Children not involved in youth sports need daily physical education to get their physical activity as well as develop movement skills. Children participating in youth sports need daily physical education to improve coordination, mobility, strength, endurance, and movement skills.

Interactive Video Games are Physical Education

Interactive video games are fun, can get a person's heart rate up, and get the blood pumping. Many people believe that active video games are quality physical education but do our children need to spend more time using media? Currently, children and teenagers spend over 7 hours per day using media. Playing video games can also lead to repetitive strain injuries as well as soft tissue injuries from uncontrolled movements, factures, falls, and contusions. The movements in video games are limited by the design of the game.

While video games are enjoyable, children need to explore a variety of movements through a daily physical education program. These movements help build the brain

body connection which helps to improve athleticism that can be applied in real world situations.

Physical Education is not Fun

Many adults had bad experiences with physical education when they were in school. They do not want their children to experience the same emotional pain they felt in middle school. Parents do not want their children to experience being the last one picked or being embarrassed by the coach or PE teacher. They do not want their children to feel the pain of being hit in the face with a dodge ball.

Physical education should be fun. You do not need the old football coach yelling at you and making you feel inadequate. We are designed to move. You can see the joy children have in movement when we let them play. Physical education should be taught in an environment with minimal stress. The focus should be on having fun and allowing the child to explore a variety of movements. The more positive the learning environment, the better the results we see. Using learning exploration and guided discovery as teaching techniques children are allowed to try different movements in a safe environment. Our bodies usually figure out movements if we provide enough time for practice and repetition.

Physical Education Requires a Large Space

When people think about physical education they think it must be done in a large space with a large number of people. This is what many adults remember from their childhood experiences. Having a large space is great but most physical education activities can be done in a small space and do not require large groups.

Many people do not have access to a large space or cannot go outside due to extreme weather conditions or health issues. Physical Education or movement training can be done in a space such as a living room, play room or hallway. Children can learn to skip, shuffle, hop and jump in a small indoor space. Basic strength training can also be done at home. Bodyweight training exercises are critical for building foundational strength. These exercises require little or no equipment and can be done at home.

Physical Education in not Necessary

Physical Education is being reduced in schools and there is very little information on physical education for homeschoolers. Many people involved in education feel that there is not enough time to focus on math, science, and reading so physical education gets cut or neglected.

The truth is that daily physical education is critical to academic success as well as health and wellness. Physical Education teaches movement skills that help people develop gross motor skills. Gross motor skills are movements that involve large muscle groups. Gross motor skills help people walk, run, jump, throw and catch. They also help people maintain good posture, maintain strength and muscle tone, and are the foundation for developing fine motor skills. Fine motor skills are important for writing, drawing and manipulating small objects. Physical Education can be used to learn and reinforce concepts learned it math and science. If done correctly, physical education is a great way to manage and relieve stress. Research shows that daily physical education has increases attention span and improves behavior.

Spending as little as 30 minutes each day on physical education will make a huge impact in your child's life. It will help develop the brain body connection which will improve athletic ability. If physical education is done in a fun way, it will be something your child looks forward to or even asks to do every day. Put the video games away, clear out a space and start moving with your kids. In a few weeks you will notice that this small investment of time will put your family on a path to better physical, mental, and emotional health and wellness.

Relationship of Physical Education with General Education

If the aim of **Education** is enrichment of personality, Physical Education contributes too much extent. If the aim of Education is self realization, again no doubt physical Education provides opportunities to develop the sense of self realization.

To achieve and realize the aim and objectives of Education, physical Education plays an important role and assists in developing those objectives more practically. Therefore, it is said that physical education is an integral part of general education process.

Whole Educational processes become more easy and efficient when physical Education put its contributions. Physical education is an essential part of total education process. Secondary Education Commission (1952-53) enlisted four aims of education i.e.

(i) Development of democratic approach,

(ii) Improvement of vocational efficiency,

(iii) Development of personality and

(iv) Development of qualities of leadership.

Physical education puts its great contribution in developing these qualities in an individual. Two statements 'A sound mind lies in a sound body' and 'physical Education an integral part of total Education', one statement empowers the other statement. A complete personality is consisted of healthy body and healthy mind.

In other words it can be said physical educations assist whole educational process in developing all round personality. Only theoretical approach may produce a sound mind, but for a sound body physical approach is required. Therefore only class room education itself cannot be considered as a complete educational programme until and unless physical education is regarded as an integral part of the programme.

Relationship of physical education with general education is well recognized and understood. It is therefore, physical education found essentially place in regular curriculum of every education institution.

Physical Education is an integral part of the total education of every child from kindergarten through grade 12. Therefore, every student should have the opportunity to participate in a quality physical education program. It is the role of quality physical education programs to help students develop health-related fitness, physical competence in movement activities, cognitive understanding, and positive attitudes toward physical activity so that they can adopt healthy and physically active lifestyles. Quality programs are also important because they provide learning experiences that meet a student's developmental needs, which in turn helps to improve the mental alertness, academic performance, readiness, and enthusiasm for learning. According to

the National Association for Sport and Physical Education (NASPE) (1) guidelines, a high-quality physical education program includes the following components: opportunity to learn, meaningful content, and appropriate instruction.

Quality physical education programs should provide the student with the following benefits:

- Skill development – Develops motor skills that allow for safe, successful, and satisfying participation in physical activities.

- Regular, healthful physical activity – Provides a wide range of developmentally appropriate activities for all children and youth. It encourages young people to choose to be physically active and aware of the benefits.

- Improved physical fitness – Improves the health-related components of physical fitness (cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition).

- Support of other subject areas – Reinforces knowledge learned in/across the curriculum and serves as a laboratory for application of content in science, math, and social studies, communication skills, and literacy.

- Self-discipline – Facilitates development of responsibility for personal health, safety, and fitness.

- Improved judgment – Influences moral development and students assume leadership roles, cooperate with others, and accept responsibility for their own behavior.

- Stress reduction – Physical activity becomes an outlet for releasing tension and anxiety and facilitates emotional stability and resilience.

- Strengthened peer relations – Physical education is a major force in helping children and youth socialize with others successfully and provides opportunities to learn positive social skills.

- Improved self-confidence and self-esteem – Instills a stronger sense of self-worth based on their mastery of skills and concepts of physical activity. Children become more confident, assertive, independent, and self-controlled.

- Goal setting – Gives children and youth the opportunity to set and strive for personal, achievable goals.

Once established, it is difficult to change sedentary habits. Experts agree that childhood is the time to begin development of active lifestyles, and adolescence is an important time to prevent the decline in physical activity levels. Therefore, it is extremely important to equip young people with the fitness levels, knowledge, motor skills, and personal/social skills they need to be active both now and in the future.

What are Standards?

Standards are statements that define what students should know and be able to do upon completion of specific levels of instruction as well as how they will respond to their environment. Standards serve as a guide for excellence and are differentiated from minimum competencies or outcomes because they describe the challenging goals for expanding and improving education.

The Benefits of Standards:

NASPE has offered a description of the benefits that are derived from having standards for physical education. NASPE states in its standards document, Moving Into the Future (2004) (1). "A significant benefit to physical education offered through the delineation of a comprehensive set of standards and accompanying assessments is that they combat the uninformed idea that physical education is an "academically soft" area of study. The standards essentially say that physical education has academic standing. They say there is such a thing as achievement, that knowledge and skills matter, and that mere willing participation is not the same as education".

How are Standards to be used?

The purpose of developing these standards at the state level is to better serve schools and the local community in the process of curriculum development. Curriculum development is a local issue and may differ from school to school while the standards remain the same for all schools in the state.

A general description of the Standards includes the following:

Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. The intent of this standard is development of the physical skills needed to enjoy participation in physical activities. Mastering movement fundamentals establishes a foundation to facilitate continued motor skill acquisition and gives students the capacity for successful and advanced levels of performance to further the likelihood of participation on a daily basis. In the primary years, students develop maturity and versatility in the use of fundamental motor skills (e.g., running, skipping, throwing, striking) that are further refined, combined, and varied during the middle school years. These motor skills, now having evolved into specialized skills (e.g., a specific dance step, chest pass, catching with a glove, or the use of a specific tactic), are used in an increasingly complex movement environment through the middle school years. On the basis of interest and ability, high school students select a few activities for regular participation within which more advanced skills are mastered. In preparation for adulthood, students acquire the skills to participate in a wide variety of leisure and physical activities.

Standard 2: Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.

The intent of this standard is facilitation of learners' abilities to use cognitive information to understand and enhance motor skill acquisition and performance. It enhances the ability to use the mind to control or direct one's performance. This includes the application of concepts from disciplines such as motor learning and development, sport psychology and sociology, and biomechanics and exercise physiology. It includes, for example, increasing force production through the summation of forces (e.g. hitting a baseball, lifting a heavy object), knowing the effects of anxiety on performance (e.g. impact of relaxation techniques), and

understanding the principle of specificity of training (e.g. you don't have a person swimming if you want them to become a golfer). Knowledge of these concepts and principles and of how to apply them enhances the likelihood of independent learning and therefore, more regular and effective participation in physical activity. In the lower elementary grades, emphasis is placed on establishing a movement vocabulary and applying introductory concepts. Through the upper elementary and middle school years, an emphasis is placed on applying and generalizing these concepts to real-life physical activity situations. In high school, emphasis is placed on students independently and routinely using a wide variety of increasingly complex concepts. By graduation, the student has developed knowledge and ability to independently use his/her knowledge to acquire new skills while continuing to refine and improve existing ones.

Standard 3: Participates regularly in physical activity.

The intent of this standard is establishment of patterns of regular participation in meaningful physical activity. This standard connects what is done in the physical education class with the lives of students outside of the classroom. Although participation within the physical education class is important, what the student does outside the class is critical to developing an active, healthy lifestyle that has potential to help prevent a variety of health related problems among adults. Students make use of the skills and knowledge learned in physical education class as they engage in regular physical activity outside of the class. They demonstrate effective self management skills that enable them to participate in physical activity on a regular basis. Voluntary participation often develops from the initial enjoyment that is derived from the activity coupled with the requisite skills needed for participation. As students develop an awareness of the relationships between activity and its immediate and identifiable effects on the body, regular participation in physical activity enhances the physical and psychological health of the body, social opportunities and relationships, and quality of life. Students are more likely to participate if they have opportunities to develop interests that are personally meaningful to them. Young children learn to enjoy physical activity, yet they also learn that a certain level of personal commitment and earnest work is required to reap the benefits from their participation. They partake in developmentally appropriate activities that help them develop movement competence and should be encouraged to participate in moderate to vigorous physical activity and unstructured play. As

students get older, the structure of activity tends to increase and the opportunities for participation in different types of activity increases outside of the physical education class. Attainment of this standard encourages participation commensurate with contemporary recommendations regarding the type of activity as well as the frequency, duration, and intensity of participation believed to support and sustain good health.

Standard 4: Achieves and maintains a health-enhancing level of physical fitness

The intent of this standard is development of students' knowledge, skills, and willingness to accept responsibility for personal fitness, leading to an active, healthy lifestyle. Students develop higher levels of basic fitness and physical competence as needed for many work situations and active leisure participation. Health-related fitness components include cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition. Expectations for improving students' fitness levels should be established on a personal basis, taking into account variation in entry levels and the long-term goal of achieving health-related levels of fitness based on criterion-referenced standards. Students progress in their ability to participate in moderate to vigorous physical activities that address each component of health-related fitness. Moreover, students become more skilled in their ability to plan, perform, and monitor physical activities appropriate for developing physical fitness. Middle school students gradually acquire a greater understanding of the fitness components, the ways in which each component is developed and maintained, and the importance of each component in overall fitness. Secondary students are able to design and implement an appropriate personal fitness program that enables them to achieve health-related levels of fitness.

Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

The intent of this standard is achievement of self-initiated behaviors that promote personal and group success in activity settings. These include safe practices, adherence to rules and procedures, etiquette, cooperation and teamwork, ethical behavior, and positive social interaction. Key to this standard is developing respect for individual similarities and differences through positive interaction among participants in physical activity. Similarities and differences include characteristics of culture, ethnicity, motor performance, disabilities, physical characteristics (e.g., strength, size, and shape), gender, age, race, and socioeconomic status.

Achievement of this standard in the lower elementary grades begins with recognition of classroom rules, procedures, and safety. In the upper elementary levels, children learn to work independently, with a partner, and in small groups. Throughout elementary school, students begin to recognize individual similarities and differences and participate cooperatively in physical activity. In middle school, adolescents identify the purpose of rules and procedures and become involved in decision-making processes to establish the rules and procedures that guide specific activity situations. They participate cooperatively in physical activity with persons of diverse characteristics and backgrounds. High school students initiate responsible behavior, function independently and responsibly, and positively influence the behavior of others in physical activity settings. They participate with all people, avoid and resolve conflicts, recognize the value of diversity in physical activity, and develop strategies for inclusion of others. High school students begin to understand how adult work and family roles and responsibilities affect their decisions about physical activity and how physical activity, preferences, and opportunities change over time.

Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

The intent of this standard is development of an awareness of the intrinsic values and benefits of how participation in physical activity provides personal meaning. Physical activity provides opportunities for self-expression and social interaction and can be enjoyable, challenging, and fun. These benefits develop self-confidence and promote a positive self-image; thereby, enticing people to continue participation in physical activity throughout their lifespan. Elementary children derive pleasure from movement sensations and experience challenge and joy as they sense a growing competence in movement ability. At the middle school level, participation in physical activity provides important opportunities for challenge, social interaction, and group membership, as well as opportunities for continued personal growth in physical skills and their applied settings. Participation at the high school level continues to provide enjoyment and challenge, as well as opportunities for self-expression and social interaction. As a result of these intrinsic benefits of participation, students begin to actively pursue life-long physical activities that meet their own needs.

Assessment: The standards are considered to be consensus statements about what a student should know and be able to do, and how they will act. They not only provide a basis for developing physical education programs at the national, state, and local levels, but also provide a basis for student assessment. Assessment is the process of gathering evidence about a student's level of achievement in a specified subject area and of making inferences based on that evidence for a variety of purposes. The primary goal of assessment should be seen as the enhancement of learning, rather than simply the documentation of learning and assigning a grade. Whereas a

broad range of assessment techniques could well be used to determine whether a given standard is being met, assessment should (1) reflect the subject content that is most important for students to learn, (2) enhance learning through a connection with instruction, (3) provide reliable evidence of student performance, and (4) yield valid inferences about student learning. The instruction and assessment process should be dynamic and continuous, yielding information about student progress toward the achievement of the content standards in physical education.

The relationship between physical activity and mental health

The relationship between physical activity and mental health is not as simple as to say that activity will invariably lead to improved mental health. For youngsters to be engaged in physical exercise, it is important that the needs of the particular child be taken into account. Forced and frightening activities should be avoided. The context should be one of enjoyment rather than of harsh discipline and skill-dependent games where many children are apt to fail.

Mental disorders are of major public health significance. It has been claimed that vigorous physical activity has positive effects on mental health in both clinical and nonclinical populations. This paper reviews the evidence for this claim and provides recommendations for future studies. The strongest evidence suggests that physical activity and exercise probably alleviate some symptoms associated with mild to moderate depression. The evidence also suggests that physical activity and exercise might provide a beneficial adjunct for alcoholism and substance abuse programs; improve self-image, social skills, and cognitive functioning; reduce the symptoms of anxiety; and alter aspects of coronary-prone (Type A) behavior and physiological response to stressors. The effects of physical activity and exercise on mental disorders, such as schizophrenia, and other aspects of mental health are not known. Negative psychological effects from exercise have also been reported. Recommendations for further research on the effects of physical activity and exercise on mental health are made.

This leaf let is for anyone who wants to know:

- how being active can make you feel better
- how exercise can help depression
- how active you need to be to feel better
- how to get more active safely.

Introduction

Exercise keeps our hearts and bodies healthy. But how?
We often talk about the mind and body as though they are completely separate – but they aren't. The mind can't function unless your body is working properly – but it also works the other way. The state of your mind affects your body.

So – if you feel low or anxious, you may do less and become less active – which can make you feel worse. You can get caught in a harmful cycle:

Why bother with exercise?

To work properly, your body needs regular exercise - and most of us feel good when we are active.

Until the last 100 years or so, you had to be quite active to just live your everyday life. Now, in modern Western societies, so much of what we used to do is done by machines. We drive cars,

so we walk less, vacuum cleaners make cleaning easy, and washing is done by a machine. At work we may not even have to move around in the office - it's enough to sit at the computer. It doesn't help that modern high-energy foods make us put on too much weight – or that, (in the West at least), food has never been cheaper or easier to buy.

So how can you start to get more active, day to day? You may be turned off by the word 'exercise' because:

- I've never done it
- I wasn't good at sports at school
- I would feel silly
- Other people would make fun of me
- It won't help unless it hurts - 'No pain, no gain'
- It's sweaty and uncomfortable
- I'm too tired
- I would rather do something else
- It's expensive
- I think it will make me feel worse
- I don't have anyone to do it with
- I don't know where, when or how to start.

But - it doesn't have to be about running around a track or working out in a gym. It can just be about being more active each day – perhaps just walking more, or taking the stairs rather than the lift. If medical problems stop you from doing one thing, there may be others that you can do.

What happens if you don't do very much?

Some people can get away with doing very little and live to a ripe old age – but most of us can't. Broadly speaking, the less you do, the more likely you are to end up with:

- low mood / depression
- tension and worry.

If you keep active, you are:

- less likely to be depressed, anxious or tense
- more likely to feel good about yourself
- more likely to concentrate and focus better
- more likely to sleep better
- more likely to cope with cravings and withdrawal symptoms if you try to give up a habit, such as smoking or alcohol
- more likely to be able to keep mobile and independent as you get older
- possibly less likely to have problems with memory and dementia.

So - don't worry about not doing enough – get started by building a bit more physical activity into your daily life now. Even a small change can boost your morale, give you a sense of achievement and help you to feel better in yourself.

Why does exercise work?

We are not yet exactly sure. There are several possibilities:

- Most people in the world have always had to keep active to get food, water and shelter. This involves a moderate level of activity and seems to make us feel good. We may be built – or "hard wired" - to enjoy a certain amount of exercise. Harder exercise (perhaps needed to fight or flight from danger) seems to be linked to feelings of stress, perhaps because it is needed for escaping from danger.
- Exercise seems to have an effect on certain chemicals in the brain, like dopamine and serotonin. Brain cells use these chemicals to communicate with each other, so they affect your mood and thinking.
- Exercise can stimulate other chemicals in the brain called "brain derived neuro-trophic factors". These help new brain cells to grow and develop. Moderate exercise seems to work better than vigorous exercise.
- Exercise seems to reduce harmful changes in the brain caused by stress.

How much exercise is enough?

- Firstly – any exercise is better than none.
- **BUT** a **moderate** level of exercise seems to work best.
- This is roughly equivalent to walking fast, but being able to talk to someone at the same time.
- You need to do about 30 minutes of moderate physical exercise on at least 5 days of every week. This can be done in one 30 minute session or broken up into shorter 10 or 15 minute sessions.
- This can not only lower the risk of heart disease, diabetes and cancer, but also seems to help depression – so you get a double benefit.
- Don't start suddenly - build more physical activity into your life gradually, in small steps.

When should I exercise?

As regularly as you can. There will be days when you just don't feel like exercise – you may feel tired or be too busy or anxious about something. If you keep to your routine and exercise at times like this, you will almost certainly feel better. Why?

If you are tired, exercise tends to give you energy. If you are worried, it can take your mind off your concerns for a while. Even if you can't 'exercise', a 15 minute walk can help you to clear your mind and relax. You may find it helpful to listen to music at the same time.

It's best not to do too much in the evening. Being active will generally help you to sleep but, if you exercise late in the evening, you may find it difficult to settle.

Eating and energy levels

Caffeine and high energy snacks will boost your energy quickly - but after an hour or so you will probably feel more tired than you did before. A short walk will boost your energy level for much longer.

Exercise and Coping

If you are active you will probably find it easier to deal with life's problems and challenges. So - if those problems stop you from regularly exercising, it's worth remembering that finding time for exercise may well help you to deal with such problems.

Exercise can also help you to cope better by improving how you feel about yourself and getting you together with other people.

How well does exercise work for depression?

For mild depression, physical activity can be as good as antidepressants or psychological treatments like cognitive behavioral therapy (CBT).

It can certainly be harder to get active when you are depressed. But being active lifts your mood and gives you a sense of being in control and in touch with other people.

What's the downside?

Not much. If you are normally very active, you may get depressed if, for any length of time, you can't exercise because of an injury. If this does happen, you can carry on with exercises using those parts of your body that are not injured. This will help you to keep fit, feel more in control and keep in touch with other people. It can help to set yourself targets – both for the next few days and longer, for the next weeks or months.

Some people with eating disorders use exercise to lose too much weight. Some athletes (such as those in weight-related sports like horse racing, boxing and gymnastics) are more likely to develop eating disorders. Physical exercise can cause injuries and some health problems – but you are much more likely to get ill if you don't keep active. If in doubt, ask your doctor.

Getting down to it

Any physical activity needs to be something that you can do regularly. But lots of things can stop you, especially if you feel depressed. You may feel that you:

- don't have the energy
- don't feel confident enough
- don't know anybody to exercise with
- don't have the right clothes
- can't afford it
- just aren't the 'exercise or sporty type'
- won't feel any different for doing it.

Exercise can be about playing sport or doing hard-core exercise – if you want that. For other people, it is just about being more physically active and sitting around less. It doesn't have to be hard – but try to do something every day.

Some things aren't expensive – walking is free and jogging just needs a pair of trainers (cheap ones are fine). If you have a bike already, try cycling to work (or for any regular journey) – you may even save some money.

- **But don’t overdo it!**

If you haven’t been active for a while, doing too much when you start can make you more tired – particularly if you also have a health problem (including depression) that makes you tired. One day you may have the energy to be really active but feel completely exhausted the next. Whatever you choose to do, start with something easy – like walking round the block. Build your level up gradually, perhaps by just doing a minute or two more – or a few meters more - each day. Try to do something most days, even if you feel tired. Start by working out how much you do already – you can use a pedometer to show you how many steps you take every day. Or you could keep a diary for a few days of how long you spend doing active things. Then set yourself some goals. Make sure they are:

S – Specific (clear)

M – Measurable – you will know when you’ve achieved them

A – Achievable – you can achieve them

R – Relevant – they mean something to you

T - Time-based – you set yourself a time limit to achieve your goals.

They need to be things you can see yourself doing – and take pride in, so you feel good about yourself. You may be able to do it on your own, or with some help from others.

Nobody’s perfect. You will have setbacks when you can’t meet a short term goal, or just feel too tired to do anything. Recognize it when it happens, but don’t worry about it. Tomorrow is another day and short term setbacks don’t matter in the bigger picture of your longer-term goals. And, if you need to, do ask someone else to give you a hand.

Public Relations for Physical Education

In today's highly competitive world, more than just a good product is required for a business to survive. A sound public relations campaign is needed to generate publicity and extol the product's benefits and the same can be said of a physical education (PE) program. When viewed from a business perspective, the greatest threat to physical education is having unreliable or no information regarding the advantages of high quality physical education. It is important that physical education programs adopt sound business principles and that every effort be made to enhance relationships between physical education specialist

and members of allied publics. This article discusses the groups or individuals who are able to assist and improve PE programs that physical educators may encounter in overall school settings.

PR is vital to outreach programs.

- PR is all about building relationships to advance, promote, and benefit the reputation of you yourself, your department and institution
- PR is about communicating your message to gain allies, advocates, supporters, etc. in the community and the institution
- It aids in marketing the department for recruitment purposes and can lead to improved quality of student applicants
- It demonstrates to funding agencies that you are making a difference and actually have results
- It can improve the reputation of an individual department
- It can also serve the greater physics community by convincing the public that “quarks, quantum dots, and nanostructures are cool”
- It can lead to strong community and industrial partnerships, and even financial support

The more PR you do, greater potential for even more media exposure.PR is not just media relations

- "doing outreach" itself is PR
- Other PR examples include:
    -
    - Special Events
    - Special Promotions
    - Public Affairs
    - Internal Relations
    - Community Relations
    - High Tech PR: blogging, social networking

Physical Education as an Art and Science.

The Physical Education Program

To be successful in the field, a physical education student must like to work with people, be adequately skilled in physical activities, have a commitment to fitness and be interested in the physical, biological and social sciences. The physical education teacher education (PETE) program emphasizes teaching and provides students with skills and techniques necessary to potentially have a successful career in K-12 physical education. The program is aligned with the National Association for Sport and Physical Education's (NASPE) PETE Standards. The courses are strategically structured to be sequential in nature. Students start the program in the Department of Health, Nutrition and Exercise Sciences (HNES) and complete their degree requirements through the School of Education (SOE). Application and interviews to the SOE will occur during the spring semester of a student's junior year. Completing the degree

requirements for a physical education degree in the SOE certifies a graduate to teach physical education from kindergarten through grade 12.

The student majoring in physical education will be studying the art and science of human movement, which includes classes in elementary, middle and high school activities; motor learning, physiology and psychology of human movement; the art of teaching and motivating potential of all individuals; and appreciation of the individual differences of all people and their communication skills.

Students will successfully complete all 100-level courses before advancing to the 200-level courses, etc. The courses provide a firm scientific foundation, while providing vast experience in practice teaching. Students must earn a grade of B or better in all core physical education courses and must keep a 2.75 cumulative grade point average to stay in full-standing in our program. A graduate leaves prepared to teach in a professional manner, while demonstrating exemplary ethical behavior, and displays up-to-date best practices; graduates are expected to provide positive role models for K-12 students in the area of physical education, physical activity and sports.

Technology in Physical Education

Physical education majors at NDSU are taught how to use and apply heart rate monitors and pedometers in activity settings; the Tri FIT computer-based health management system which allows for exercise evaluation, nutrition evaluation and health-risk assessments. Students will use video cameras and computer software to analyze sport skills and improve teaching effectiveness, K-12 student accountability and personal reflection.

Double Major

Because of No Child Left Behind legislation, it is strongly recommended that physical education majors double major in health education.

School Health Education Major-- For further information about school health education, please refer the Health Education Fact Sheet.

Career Opportunities

Graduates in physical education find career opportunities teaching in public or private educational settings, coaching within the community, athletic programs including coaching at high-education institutions, community sports positions with parks and recreation facilities, and/or local organizations like the YMCA. If interested in coaching at the higher education institutions, students are encouraged to maintain a 3.0 grade point average to ensure acceptance into the graduate school to pursue the needed master's degree required to coach at this level.

The Physical Education program provides opportunities for students to develop their academic background, teaching skills and physical talents, as well as preparing them to enter the work force.

The demand for allied health professionals is expected to increase to meet the current and future healthcare needs in the U.S. and beyond. Physical fitness and wellness play key roles in our society, underscoring the need for qualified professionals in physical education, wellness, and recreation. Sports, once viewed only as a national pastime, have become a lucrative industry with significant employment opportunities.

As a student in John Carroll's Exercise Science, Physical Education, and Sports Studies program, you'll have a wide range of opportunities in pursuing careers in fitness and wellness, physical education, or the sports industry. The program emphasizes the value and importance of physical activity in all people's lives, helping them reach maximum achievement of individual potential. You can choose from three majors:

- **Exercise Science**
- **Physical Education for the Pre-K to 12th Grade Licensure Program**
- **Sports Studies**

Adapted Physical Education (APE) is the art and science of developing, implementing, and monitoring a carefully designed physical education instructional program for a learner with a disability, based on a comprehensive assessment, to give the learner the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness

The Sport, Health, and Physical Education program provides students with the knowledge and experience to pursue numerous careers in physical education (e.g., education, fitness/wellness management, movement science, outdoor leadership, physical therapy, coaching, athlete development, and sports management). Students will explore the nature of human movement and learn essential skills to communicate, administrate, and lead groups in physical activity settings. In addition, students will gain an appreciation of the disciplinary knowledge and its application to various physical activity-related professions. The program provides students with diverse learning environments and applied experiences including lectures, labs, activity classes, online learning, and applied research. The objective is to prepare undergraduates in the field of physical education with the skills, knowledge, and experience to promote physical activity and healthy lifestyles.

Principles of Physical Education-

The goal of physical training is to produce these long-term changes and improvements in the body's functioning.

• Over time, immediate, short-term adjustments translate into long-term changes and improvements.

• These principles include: – Specificity: the training principle that the body adapts to the particular type and amount of stress placed on it. – Progressive overload: the training principle that places increasing amounts of stress on the body causes adaptations that improve fitness (FITT Principle). Reversibility: the training principle that the body will return to its original homeostatic state when amount of physical stress is removed for a specific time. – Individual differences: each individual's body adapts to the stress differently.

To develop a particular fitness or skill component, you must perform exercises designed specifically for that component; this is the principle of specificity. Weight training will develop muscular strength but will not be very effective in improving cardio respiratory endurance or flexibility. A well-rounded exercise program includes all components of fitness designed to improve different parts of the body or towards specific sport activities

The amount of overload is important since too little will not have much effect upon fitness levels, and too much will increase the likelihood of an injury.

• Progression is critical since exercising at the same levels will not provide adaptations and can lead to a plateau.

• FITT: a principle for overload

– Frequency—How often

– Intensity—How hard

– Time—How long (duration)

– Type—Mode of activity

This Physical Education (PE or Phys Ed) course offers a comprehensive introduction to the topic and investigates the basics: from muscle response to the physiology, biology, and the science of sports. It covers the scientific basis of fitness and concludes with training principals and methods. It is an ideal course for those studying for a qualification in health or fitness or for sports enthusiasts. It is also an excellent resource for trainers or managers in fitness, health or sports related activities.

CERTIFICATION

To qualify for your official ALISON Diploma, Certificate or PDF you must **study** and complete all modules and score 80% or more in each of the **course assessments**. A link to purchase your Diploma **certificate** will then appear under the My Certificates heading of your My Account page.

LEARNING OUTCOMES

On completion of this course you will have a good understanding of muscle architecture and muscle groups such as the motor unit, muscular force, muscle fibers, joint actions, microscopic muscle structure, muscle contractions and much more. This will be extremely beneficial for involvement in fitness activities. You will gain knowledge of your heart rate and ATP-PC, lactic

acid and aerobic energy systems. You will know all about food conversion for energy which is so important to understand for effective training. This course will teach you the four training principles: overload, specificity, reversibility and individual differences. You will have a great understanding of the importance of maximum volume of oxygen consumed by the body, acute responses, fatigue, and recovery and glycogen restoration.

Physical Culture, Physical training and Physical Education.

This is about the fitness movement; for the study of the physical aspects of cultures, see Anthropology, Cultural Anthropology, and Social Anthropology.

Physical culture is a health and strength training movement that originated during the 19th century in Germany, England, and the United States.

The physical culture movement of the 19th century owed its origins to several cultural trends. German immigrants after 1848 introduced a physical culture system based on gymnastics that became popular especially in colleges. Many local Turner clubs introduced physical education (PE) in the form of 'German gymnastics' into American colleges and public schools. The perception of Turnen as 'non-American' prevented the 'German system' from becoming the dominating form. They were especially important mainly in the cities with a large German-American population, but their influence slowly spread.

By the late 19th century reformers worried that sedentary white collar workers were suffering from various "diseases of affluence" that were partially attributed to their increasingly sedentary lifestyles. In consequence, numerous exercise systems were developed, typically drawing from a range of traditional folk games, dances and sports, military training and medical calisthenics.

Physical culture programs were promoted through the education system, particularly at military academies, as well as via public and private gymnasiums. Industry began the production of various items of exercise-oriented sports equipment. During the early and mid-19th century, these printed works and items of apparatus generally addressed exercise as a form of remedial physical therapy. Certain items of equipment and types of exercise were common to several different physical culture systems, including exercises with Indian clubs, medicine balls, wooden or iron wands and dumbbells.

Combat sports such as fencing, boxing and wrestling were also widely practiced in physical culture schools, and were touted as forms of physical culture in their own right. The Muscular Christianity movement of the late 19th century advocated a fusion of energetic Christian activism and rigorous physical culture training.

Physical culture is a difficult concept to relate to in our day and age. As civilization advances, we are becoming less reliant on our physical nature to accomplish everyday tasks and less aware of physical culture as a whole.

In our physical culture… instead of walking to work, we drive a car or ride a bus. We take the elevator or the escalator instead of the stairs. Instead of playing games outside, we play games inside. We are more inclined to lift metal plates and ride a cardio machine than compete in a sport, build a stone wall, or enjoy a walk or run outdoors. We even ride ATV's, dirtbikes, and snowmobiles on walking trails instead of WALKING on them.

The motivation to write this article about physical culture came as a surprise to me. I actually looked up the keyword "physical culture" in a google search, and clicked on the first result – a Wikipedia entry. I was looking forward to a thorough analysis, and to possibly learning something new or at least understanding a different perspective. What I got was not only disappointing, it was downright infuriating. Here is the exact Wikipedia entry that I pulled up on February 23, 2009.

*"*Physical culture is the promotion of muscular growth, strength and health through various physical exercise regimens like resistance training, bodybuilding, sports, stretching, and posture correction techniques. Eugen Sandow, William Muldoon, Bernarr Macfadden and Edmond Desbonnet were among its earliest popularisers.

Firstly, "muscular growth" should not be the first thing on that list. I'm getting disgusted with the volume of instances where I hear that getting big muscles is an essential pursuit. It's definitely not, and a lot of people are worse off because of that widespread heresy that pervaded the American physical culture when bodybuilding erupted as a sport a few decades ago. Secondly, both bodybuilding and sports are listed, yet bodybuilding IS a sport – why the distinction? Thirdly, the term "stretching" is included – yet stretching is quite vague and misleading with all of the current research. If you include the practice of stretching, you should also include items like joint mobility training, proprioceptive neuro-muscular facilitation techniques (PNF), dynamic stretching, static stretching, corrective exercise, all the different forms of yoga, and every other recuperative or preventative technique that physical therapists, coaches, and trainers use every day.

Physical culture is an idea that is created when a community (micro) or society (macro) joins together to establish a philosophy, regimen, or lifestyle seeking maximum physical, mental, spiritual, and social development through methods such as fitness, diet, athletics, martial art, and mental discipline – among others.

The physical benefits for being a part of a physical culture include improvements in health, appearance, mobility, strength, endurance, and other general fitness attributes as well as greater proficiency in athletic activities. Although, the benefits are much more far-reaching than that when you factor in the mental, spiritual, and social development that can take place.

A strong physical culture is also confident, bold, and assertive. It is mentally clear and intellectually strong. We know that strength of health and body correlates with strength of mind – they are connected.

A strong physical culture is able to focus, meditate, sacrifice, and foster humility among other things. Simply put, a physical culture is better able to seek and serve God.

A strong physical culture is a close-knit group, sharing a common bond much like a brotherhood. Groups of people that have shared challenging experiences together form strong relationships that accept and encourage individuality as well as share the common vision, purpose, and goals of the whole. Relationships are made stronger by participating in physical activity, whether recreation, competition, or work-related.

That's not to say that everyone experiences holistic benefits from the participation in physical culture. Some choose to enhance their mental, spiritual, and social life from their physical activity, but not everyone does.

Something else to consider is that everyone has a unique perspective on physical culture. While I think most people can agree that the above points are generally true of physical culture, the expression of those points can be drastically different from person to person. Some people enjoy the pursuit of fitness by lifting weights and running. On the other hand, this could be pure torture for someone else who wouldn't want to do anything else other than climb a mountain or attempt a white-water rafting trip for pure physical enjoyment.

Physical activity and physical education are two terms that are often mistakenly used interchangeably. While there are inherent similarities and overlapping, there's one point that needs to be made clear—physical education and physical activity are not synonymous.

For example, say there are two children. Both get adequate physical activity—playing at recess, at home, and on the weekends. Only one of them has been fortunate enough to receive physical education throughout elementary, middle, and high school. Fast forward to the future. Chances are that the child who took PE is the one who has brought health into their adulthood.

Physical Activity

Recess is fantastic. It's a time for kids to run around and around with only their imaginations, a few swings and a basketball hoop. It's what makes being a kid so great. This kind of fun counts for physical activity, not education.

When kids are at home and head out to play freeze tag or red light green light, or when they head to dance practice, or when they chase lightning bugs around the yard, it also accounts for physical activity. It's important. It releases endorphins, builds muscle and bone density, and improves coordination.

But physical activity does not complete the picture of good health for our children. Physical education contains physical activity, but it also contains a lot of other things that set up children for long-term health of the body, mind, and spirit.

Physical Education

According to the 2010 Shape of the Nation report conducted by the National Association for Sport and Physical Education (NASPE) and the American Heart Association, "Physical education is based on a sequence of learning … [which] also includes health, nutrition, social responsibility, and the value of fitness throughout one's life."

Unfortunately, the past few years have been unkind to those gym and health classes (collectively, PE) that were cut as a result of schools "teaching to the test." Math, science, and reading took precedent over PE time, which doesn't quite fit in to decreased budgets. The Shape of the Nation report continues: "Providing time for unstructured physical activity is not the same as providing instructional time for meeting the goals of quality physical education."

Besides, as students grow and head into high school, the "unstructured physical activity" they get during free periods might consist of walking to the nearest convenience store or idly wandering about the hallways.

This just won't do, especially as students are studying for tests that will decide where they head next, be it vocational school, college or into the workforce or military.

It won't do in younger students either, when they're learning material that gives them basic skills and knowledge everyone should know: simple math, critical reading and spelling, and the science of our world. Why? Physical education provides physical activity, which studies show helps to improve academic performance. Physical education also provides knowledge—the knowledge every human being needs to stay healthy throughout their lifetime.

So what is physical education exactly? The education aspect comes into play when teachers combine motion with minds. For example, middle school challenges can involve running to different locations to put together a puzzle, or to seek out objects on a map. Also, education can focus on specific skills and coordination, like how to throw a flying disc or use a hockey stick. High schools will learn the value of nutrition and pair that will circuit training. They'll learn how to set goals and how to stay active in achieving those goals.

Research is the basis for each of these strategies. These examples and others are proven to work, not only to improve the health knowledge of students, but to improve their ability to comprehend other subjects as well. The American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) is an association dedicated to the health and well-being of America's youth.

The Alliance's members (NASPE, for one) are a wealth of information about the importance of physical education, the research behind the information, and why it's important in the first place.

Renowned institutions such as the Centers for Disease Control and Prevention and the National Academy of Sciences as well a plethora of science and teaching journals have cited SPARK's physical education curriculum, and the HSC Foundation has even named SPARK as the only program it recommends for both PE and physical activity. And that's what this is all about. SPARK has the difference between physical education and physical activity down to a science—literally. School districts with struggling attendance, lagging productivity and underwhelming test scores must look at the research. Recess is not enough.

Many of these schools are under federal and state government mandates to perform well in math, science and reading. If they don't, teachers could see pink slips and students could be subjected to a longer school day or year. However, the government also provides help. The Department of Health and Human Services is an excellent source of funding for a school to institute a physical education program that is proven to be effective in raising academic performance. More educated movement, better test scores. And it's not just the test scores that will improve. The health and well-being of the students, their abilities, their outlook, their potential — all of it will improve.

Physical activity is **defined** as any bodily movement produced by skeletal muscles that require energy expenditure. **Physical** inactivity has been identified as the fourth leading risk factor for global mortality causing an estimated 3.2 million deaths globally.

Physical fitness is a general state of health and well-being and, more specifically, the ability to perform aspects of sports or occupations. **Physical fitness** is generally achieved through correct nutrition, exercise, hygiene and rest.

Historical Development of Physical Education in India

India has had a long history of physical education, far more ancient than Greece. But in our times When the Olympic Games occurring every four years have become probably the biggest planetary event, most people know that the Games originated more than two thousand years ago in Greece. In addition, Greeks have given the Western world through many beautiful statues a keen sense of bodily perfection, an ideal of physical beauty unsurpassed to this day. There was such an emphasis on the importance of beauty and physical prowess's that some of the highest honors in Greek society were bestowed on athletes, to an extent unknown before and unsurpassed since.

India had already very cultured society one or two millennia at least before the Greek awakening around 800 B.C. Yet, if ancient Greeks are easily perceived as very physical in their preoccupations, Indians in contrast are rather seen as metaphysical beings, hardly interested in material things. And it is indeed true that at a certain stage of the development of Indian culture,

a deep influence has been cast on Indian collective psyche, bringing about a tendency to consider physical life as somewhat unreal.

Yet India is also well known as the native place of Yoga. Therefore knowledge about body and spirit and methods appropriate to perfection of body and spirit could evolve in India. Could this have happened in an environment generally indifferent to physical exercises and physical education?

We should remember the heroes that India gave to herself who rep resent not only great qualities of courage and valour but also of physical strength and excellence. Here is how Valmiki. describes Rama in the opening verses of the Ramayana:

There is a famous king by the name of Rama, born in the line of great Ikshwaku. He is of subdued sense and of exceeding might. He has mighty arms reaching to the knees. His throat is marked with three auspicious conch shell lines. He has high and broad shoulders, well-formed head, graceful forehead, strongest jaws, and deeply embedded collar bones. His eyes are large, and his colour is of soft lustrous green. He is neither too tall, nor very short, but well-formed and of symmetrical limbs. This highly beautiful and mighty Rama is supremely intelligent, and of eloquent speech.

Centuries later, Rama was described again by the poet Kalidasa echoing Valmiki's description:

Young, with arms long as the pole of the yoke, with sturdy shoulders, with a chest broad as a door panel, and a full broad neck, Raghu was above his father by the excellence of his body, and yet through his modesty he looked smaller.

Let us think of Arjuna, as described in Mahabharata:

Without him whose arms are long and symmetrical, and stout and like unto a couple of iron maces and round and marked by the scars of the bow-strings and graced with the bow and sword and other weapons and encircled with golden bracelets and like unto a couple of five-headed snakes, without that tiger among men the sky itself see meth to be without the sun.

Similarly for Bhima, whose body was beautifully proportioned, perfect specimen of manhood with his broad chest, slim waist and narrow hips.

and Kama, tall like a golden palm tree capable of slaying a lion and many others, endowed with resplendent bodies, whose feats of strength, endurance and agility fill the pages of Mahabharata. These heroes are not abstract images, their bodies are not less praised than their commitment to dharma, their loyalty , their devotion or their generosity.

What was the secret of this superhuman force of body and mind which we see pulsating in the heroes of Ramayana and Mahabharata? What was, it that stood behind a civilization which produced such characters? Without a great and unique discipline involving a perfect education of body, soul and mind, this would have been impossible. We will see later how physical education was an integral part of the educational curriculum, but first it must be said that, at the basis of the ancient system of education was the all important discipline of Brahmacharya. Ancient Indians knew that, in the same way a wave is not separate from the ocean, man is not separate from the universe and the universal energy. The same force which moves in stars and planets moves in man. And they knew that the source of energy is spiritual but in the physical world the basis, the foundation on which it stands is physical. Man can increase his capacity as a receptacle of this energy. By the discipline of Brahmacharya, by keeping alive his burning aspiration for the

knowledge of the Brahman, by having control over his desires and passions, by maintaining a receptive state of mind, he can retain and even largely increase energy in his soul, brain and body.

And indeed, if we turn to the ancient texts, the Vedas and Upanishads, we will see that the body, far from being regarded by spiritual seekers as an obstacle, something to be discarded, was considered as a receptacle for strength (bald}. Strength was among physical qualities the most praised:

There was a lot of appreciation about those who were strong, stout and in possession of vigor and might. Up to twenty-two adjectives in Sanskrit can be used to praise the strong! The Rishis of the Vedas and Upanishads believed in a body with firm limbs, strong and hard like stone:

May our body become invincible like a rock?

During the Vedic and the Upanishadic periods, and even later, there was an emphasis on the pursuit of an integral aim of life, which deter mined the discipline of integral education. Both the material and spiritual poles of the being had their place in this system. The ancient Sanskrit adage *"Shariram adyam khalu dharma sadhanam"* (a sound body is the veritable instrument of the pursuit of the ideal law of life) underlined the importance of physical education. And indeed it occupied an important place in the. educational curriculum. Among the large variety of sciences and arts offered to students, 3 Upavedas, or sciences, were in some way related to the education of the body: the Upaveda of Rigveda, called Ayurveda (the science and art of sustenance, protection and maintenance of long life); the Upaveda of Yajurveda, called Dhanurveda (science dealing with weapons of war and art of warfare); and the Upaveda of Samaveda, called Gandharvaveda (science of music, singing, dancing and dramatics).

When one studies Ayurveda, the real extent of the importance given by ancient India to the body, its proper development and its proper training, stands fully revealed. Ayurveda, also known as the science for prolongation of life, makes a thorough study of the human body, its different types and needs, and proposes accordingly specific exercises and methods for optimum body development, with emphasis on strength and agility. There are many important parts of Ayurveda, such as its science of nutrition and others; but presently we shall concentrate on its views on physical exercises. In Ayurveda, strength was considered as the basis of health and physical development. By the acquisition of strength, each and every internal organ, the heart, the brain, the lungs, the liver and the kidneys, the external senses, the limbs, ought to be able to perform their functions without any fault or disorder.

Exercise or Vyayama was considered the surest means of acquiring strength. Therefore, the knowledge of physical exercises, their nature, types, exact measure of exercise, benefits of exercise and even contra indications and many details about the science of exercise were included in the curriculum elaborated by Ayurveda. To give a small example of how detailed were the prescriptions, it was said, for instance, that the appearance of perspiration on the nose, the forehead, the joints of hands and legs and dryness in the mouth were the symptoms which indicated that one has taken exercise to the half extent of one's capacity. Exercise was also used by the ancient physicians as a modality of treatment, like in modem medical science. For some of the diseases certain exercises were prescribed but exercises could be prohibited altogether in other specific cases.

Ayurveda strongly advised to exercise in right measure. Susruta recommends daily exercise, because it leads to the development of the complexion of the body, strengthens and shapes the

muscles, improves the appetite and produces lightness in the body, helps in warding off laziness and gives power to endure hard work, mental strain, thirst, cold or heat. Imbecility and senile decay never approach him who exercises properly, and the muscles of his body remain firm and steady. Charaka relates the fitness of the body with a non-diseased existence: the man who is well-proportioned in flesh, well-knit in figure, and firm of sense is not likely to be overpowered by violent disease.

Physical exercise brings about lightness, capacity to work, stability, immunity to ailments, elimination of morbidities as well as a good metabolism.

At the base of Ayurveda is an important distinction between different types of bodies: the body can be of three kinds: *Sthula* (obese), *Madhya* (medium) and *Krsa*(thin). However, Ayurveda holds that every individual has his own physical personality beyond these types and it should be recognized as such. Of the three types the medium type personality is considered best by Ayurveda. There is another classification of body types based upon the preponderance of the three basic humours, *Vata* (wind). *Pitta* (bile), *Kapha* (phlegm). So there are Vata types, Pitta types and Kapha types. The ideal is to have the three humours equally balanced, which leads to perfect health. For each type of body different regimens are suggested. In addition, there are other factors influencing the personality, which are to be taken into consideration before one begins to take physical exercise, such as strength, diet, as well as the season of the year and the physical nature of the country.

One important outcome of a regular practice of appropriate physical exercise is the symmetrical development of body parts. The concept of such development was highly elaborated in Ayurveda. The Sanskrit literature of the epic period has ample references describing the ideal symmetrical body: the neck is strong and stable, the shoulders are broad and muscular, the arms long and heavy, the chest broad, the waist or girdle slim like conch, the forehead broad and the head round, etc. Charaka and Susruta both have described such ideal development. They gave minute descriptions of every part of the body and of the signs and symptoms of their perfect and ideal development. They described all parts of the body, up to the smallest, from the sole of the feet up to the texture of hairs. Charaka has described ideal and proportionate development of about thirty three different parts.

Ayurveda has sometimes been called "the science of positive health", and it is obvious, if only through the brief notes given above, that at its basis was a vast knowledge about the human body, not only a theoretical knowledge but a very practical one that had been elaborated through observation and experimentation.

Of the three Upavedas studied by the young men of ancient India, the second was Dhanurveda. Unlike the name suggests, it does not exclusively deal with archery, but stands for the study of all weapons of war. A military training was given mostly to kshatriyas but far from exclusively. Firstly, it is interesting to point out that the teachers of Dhanurveda (like Dronacharya, the teacher of the Pandavas and the Kauravas) were specifically from the brahmana class. Secondly, the Mahabharata refers to the acquisition of knowledge about war and weapons for all the four *varnas*. Kautiliya also approves of the participation of *vaishyas* and *shudras* in the army. Therefore the popular notion that the military profession was the exclusive, monopoly of the *kshatriyas* is without foundation.

To be able to develop high proficiency in weapons and movements of war, one naturally required a lot of endurance, strength, suppleness, speed and generally a high level of physical fitness. All these qualities had to be developed through exercises (*Vyayama*) and sports like hunting (*mrigaya*). There was a specific training — involving a lot of physical exertion— in various methods of warfare. The armies consisted of four divisions ("chaturanga": horses, infantry, elephants, war-chariots); skills in arts like horse-riding, chariot-driving, elephant-riding were taught. Young warriors had also to learn the use of different kinds of weapons such as sword, lance, javelin (*tomara*), axe, mace, nooses (*pasha*), slings, etc.

Wrestling or *Bahuyuddha* (literally, fighting with arms) was the only sort of fight without weapons. A wrestler was supposed to have a precise and detailed knowledge of all the vital parts of the body (*marma sthana*), the nerves, the muscles, the joints and ligaments. Only with this knowledge could he vanquish his opponent. In the Mahabharata, we find a lively description of a wrestling tournament at the court of king Virata. Bhima, who lives there in hiding, is known as the cook of the king. But this extraordinary cook is going to show that he is capable of amazing physical feats: And there came athletes from all quarters by thousands, like hosts of celestials to the abode of Brahma or Siva to witness that festival. And they were endued with huge bodies and great prowess, like the demons called Kalakhanjas. And elated with their prowess and proud of their strength, they were highly honoured by the king. And their shoulders and waists and necks were like those of lions, and their bodies were very clean, and their hearts were quite at ease. And they had many a time won success in the lists in the presence of kings. And amongst them there was one who towered above the rest and challenged them all to a combat. And there was none that dared to approach him as he proudly stalked in the arena. And when the athletes stood sad and dispirited, the king of the Matsyas made him fight with his cook. And urged by the king, Bhima made up his mind reluctantly, for he could not openly disobey the royal behest. And that tiger among men then having worshipped the king, entered the spacious arena, pacing with the careless steps of a tiger. And the son of Kunti then girded up his loins to the great delight of the spectators. And Bhima then summoned to the combat that athlete known by the name of Jimuta who was like unto the Asura Vrita whose prowess was widely known. And both of them were possessed of great courage, and both were endued with terrible prowess. And they were like a couple of infuriate and huge-bodied elephants, each sixty years old. And those brave tigers among men then cheerfully engaged in a wrestling combat, desirous of vanquishing each other. And terrible was the encounter that took place between them, like the clash of the thunderbolt against the stony mountain-breast. And both of them were exceedingly powerful, and extremely delighted at each other's strength. And desirous of vanquishing each other, each stood eager to take advantage of his adversary's lapse. And both were greatly delighted and both looked like infuriate elephants of prodigious size. And various were the modes of attack and defense that they exhibited with their clenched fists. And each dashed against the other and flung his adversary to a distance. And each cast the other down and pressed him close to the ground. And each got up again and squeezed the other in his arms. And each threw the other violently off his place by boxing him on the breast. And each caught the other by the legs and whirling him round threw him down on the ground. And they slapped each other with their palms that struck as hard as the thunderbolt. And they also struck each other with their outstretched fingers, and stretching them out like spears thrust the nails into each other's body. And they gave each other violent kicks. And they struck knee and head against head, producing the crash of one stone against another. And in this manner that furious combat between those warriors raged on without weapons, sustained mainly by the power of their arms and their physical and mental energy, to

the infinite delight of the con course of spectators. And all people... took deep interest in that encounter of those powerful wrestlers who fought like Indra and the Asura Vritra.

And they cheered both of them with loud acclamations of applause. And the broad-chested and long-armed experts in wrestling then pulled and pressed and whirled and hurled down each other and struck each other with their knees, expressing all the while their scorn for each other in loud voices. And they began to fight with their bare arms in this way, which were like spiked maces of iron. And at last the powerful and mighty-armed Bhima, the slayer of his foes, shouting aloud seized the vociferous athlete by the arms even as the lion seizes the elephant, and taking him up from the ground and holding him up from the ground and holding him aloft, began to whirl him round, to the great astonishment of the assembled athletes and the people of Matsya. And having whirled him round, and round a hundred times till he was insensible, the strong-armed Vrikodara dashed him to death on the g found."

Of all the arts of war, archery was certainly the noblest. It is the one that has inspired epic poets the most. They regarded it as a symbol of supreme victory and incomparable prowess. It is deeply embedded in the Indian culture and even now is still strongly engraved in the mind and imagination of the people of India. Who in India does not have a special place in his heart for the image of the two brothers, Rama and Laksman, bows resting on their shoulders, quivers on their backs, walking through the forests? Who does not shudder when he recalls the mighty Arjuna at Kurukshetra, facing the army of Dhritarastra, and so overcome by grief that he abandons his bow and arrows?

Having said so Arjuna with his mind overwhelmed with agony threw away his bow together with the arrows and sat idle on the chariot in the battle-field.

"The trial of the princes" by Nandalal Bose — a depiction of the archery test conducted by Dronacharya for his students, the Pandavas and the Kauravas.

Who does not remember king Dushyanta removing his bow with respect at the entrance of the peaceful hermitage of the great Rishi Kanva?

The practice of archery was a stupendous task. The Indian bow, as even the Greeks testify, was as long as a man's height and the Indians used an arrow which was three cubits in length with a heavy point. It naturally required a powerful man to handle such weapons. The Greek writers testify to the fact that such an arrow, when released from the powerful bow was thrown with such a tremendous force that it could pierce iron plates of great thickness. To secure an unerring aim with such a bow required constant practice. The practice which Arjuna is said to have had as a pupil under Drona was long and arduous, and it is stated that he used to practise even at night. The object of such practice was to secure unerring aim and achieve rapidity of throw. The archer was also expected to practise in all sorts of positions. Bows were of different lengths depending on the uses and the users. They were classified according to their weights and the strength of their cords. To pull the string of some bows or even to fix the string on to a bow was an extremely difficult task. In Chhandogya Upanishad we find the binding of a hard bow amongst examples of actions requiring a great strength:

Other examples of actions that need strength are: churning of wood sticks to produce fire, running in the battle field, stretching of a powerful bow...

However warriors were so well trained that they were able to practice archery even on horse-back. They first learnt to hit a stationary target, then a moving target while standing still, then

they practiced aiming at targets while they were moving either backwards or in a circle. They were even able to aim at a target while riding and moving away from the target.

The youth of ancient India used to take a keen interest in learning the art of archery and also a great delight in exhibiting their skill in big tournaments specially held for this purpose. Sometimes they would win a bride for themselves in "Svayamvara" by showing their skill in archery. In the Mahabharata, we have a fascinating account of the Svayamvara of Draupadi, the daughter of king Draupada. The competitors were asked to bend the specially mighty bow and shoot five arrows at a fish hanging from the ceiling in such a way that it was continuously moving. The catch was that the participants in the contest had to hit the target while looking down at the reflection of the moving fish in a water vessel kept on the floor below. Arjuna won by demonstrating extraordinary skill. It is interesting to note that this particular feat called Radhavedha was one among various other such feats which took place in tournaments not only during the epic period but even later.

Indeed it must be said that the study of Dhanurveda continued long after the end of the historical period of ancient India known as the epic period. Indian princes of later ages were intensively trained in Dhanurveda and were famous for their military valour. King Hemangada of the Kalingas bore scars on his forearm on account of the constant practice of archery. We are told of the hands of some princes whose skin had become very hard by the constant friction of the bow string. A king like Samudragupta who was named the "prince of poets" was no less proficient in the sterner arts of the warrior. On some coins, he is depicted trampling on a live tiger, which falls back as he shoots it. Wearing only waist cloth, turban and some jewellery, he stands as the very picture of energy. All these princes had a hall of exercises attached to the palace where they were able to exercise daily. In Bana's "Kadambari", we have a vivid description of the kind of education that was imparted to the princes. He tells us that King Tarapida of Ujjain had a "palace of learning" built for his son, the prince Chandrapida, outside the city. Underneath was a vast gymnasium. The young prince stayed there for years, preparing for adult life. Let us have a look at the vast range of his studies and let us see how physical education was deeply interwoven in the curriculum of the prince:

Chandrapida undisturbed in mind kept to his work by the king, quickly grasped all the sciences taught him by his teachers, whose efforts were quickened by his great powers, as they brought to light his natural abilities; the whole range of arts assembled in his mind as in a pure jewelled mirror. He gained the highest skill in word, sentence, proof, law, and royal policy; in all kinds of weapons such as the bow, quoit, shield, scimitar, dart, mace, battle axe, and club; in driving and elephant riding; in musical instruments, such as the lute, fife, drum, cymbal and pipe; in the laws of dancing laid down by Bharata and others and the science of music such as Narada; in the management of elephants, the knowledge of a horse's age and the marks of men; in painting, leaf-cutting, the use of books and writing; in all the arts of gambling, knowledge of the cries of birds, and astronomy; in testing of jewels, carpentry, the working of ivory, in architecture, physics, mechanics, antidotes, mining, crossing of rivers, leaping and jumping and sleight of hand; in stories, dramas, romances, poems; in the Mahabharata, the Puranas, the Itihasa and the Ramayana; in all kinds of writing, all foreign languages, all technicalities, all mechanical arts, in metre and in every other art. And while he ceaselessly studied, even in his childhood an inborn vigour like that of Bhima shone forth in him and stirred the world in wonder. For, when he was put in play the young elephants, who had attacked him as if he were a lion's whelp, had their limbs bowed down by his grasp on their ears and could not move; with one stroke of his scimitar

he cut down palm trees as if they were lotus-stalks; his shafts, like those of Parasurama when he blazed to consume the forest of earth's royal stems, cleft only the loftiest peaks; he exercised himself with an iron club which ten men were needed to lift.

We can see that the programme of physical education was integrated to such an extent that it lost its separate existence and identity and became one with the whole programme of education.

Directly linked with Dhanurveda, because of the need to develop strength and fitness of the warriors, were a wide range of exercises (*Vyayama*), sports and games (*Krida*). Actually these were not exclusively meant for people supposed to join an army. People from all walks of life were advised to practise them according to their different capabilities.

Amongst the physical exercises called *Vyayama,* some of them were very strenuous. For instance *Bharasrama* consisted in lifting heavy weights made of sandbags of various sizes. They had to be lifted several times by hands and legs. Another exercise, still prevalent today, was *Stambhasrama. Stambha* signifies pillar and Stambhasrama means exercise performed on the pillar or with the help of a pillar. The athlete was supposed to exercise by grasping the pillar with his arms and legs and whirling round the pillar. This exercise is now known as *mullakhamba*. These are only two among many other types of exercises like boxing, swimming, running, etc.

Amongst many sports and games of ancient India, we must mention the games with wild beasts and the games with horses. *Gajavahyali Vinoda* (sports with elephants) was a kind of race-competition between a man and a elephant. It, took place in a stadium built specially to this effect. It was, of course, extremely dangerous as the man could be trampled on by an angry elephant.

Other kinds of sports existed where a man fought unarmed with beasts such as elephants, bulls, buffaloes, etc. In the tournament held by King Virata, referred to above, Bhima had to fight against tigers, lions and elephants. During the great war he fought unarmed with the elephant of king Bhagadatta by entering through hind legs under the belly of the elephant and from there giving blows with his clenched fists. The Bhagvata Purana gives interesting accounts of Krishna fighting a furious elephant, of Balarama killing an ass by catching hold of his hind-legs, whirling him about and thrashing him against a tree. It gives a description of Krishna killing a wild bull by holding the two horns and wringing its neck. Even during the later periods, such fights were still in use. The kings of the Gupta dynasty were lovers of manly sports like these fights with wild beasts.

Asva-kanduka-krida, the sport with horses, was perhaps the most sophisticated game of ancient India. It was practised in a special play ground of specific dimensions called *Vahyali*. The game was played by two teams. The riders held strong sticks of cane (*geddika*) and had to strike a round ball made of wood covered with leather. Each team tried to send the ball towards the opposite goal. This game was very similar to what we now call polo.

To all these exercises and games must be added hunting, already mentioned. Hunting was believed to be an excellent activity for keeping fit.

There is an amusing scene in Kalidasa's Shakuntalam where ill effects and benefits of hunting are debated. Vidusaka, the jester, the king's confidant, complains about the hardships of the chase: "O my fate! I am tired of being friends with this king who is so addicted to the chase. 'Here is deer', 'There is a boar', 'Yonder's a tiger', thus, even at mid-day we wander about from forest to forest, amid rocks of woods with summer-thinned tree-shades. We drink hot, stinking

waters of mountain-torrents, astringent from the mixture of leaves. At irregular hours, we get our meal consisting chiefly of meat roasted in pits. And even in the nights, I cannot have enough sleep, as my joints are all dislocated by riding on horse-back." The General of the king, on the contrary, states that hunting makes one intimate with the art of striking down moving targets, give understandings of the signs of fear and ferocity of wild beasts and endows the body with excellent qualities owing to a conquest over fatigue. He adds that hunting reduces fat, controls the abdominal overgrowth and keeps the body light and agile. We may add that hunting was part of the duty of a king, as he had to protect the hermitages of the forest against wild beasts.

Education as seen by the Rishis of ancient India aimed at perfection — a perfection of the total human nature. It would have been surprising then if this education did not look after the aesthetic needs of the individual. As a matter of fact, openness to poetry, art, and beauty was a quality very much part of the ideal of a perfect man. And since our main concern here is the body, it must be mentioned that, if ancient Indians cherished their ideal of a strong body, they did not forget that a perfect body is also a body which can move with grace; which, through various postures, can express feelings or ideas, which can coordinate with ease its different movements, which is able to feel and follow a certain rhythm. This is why Gandharvaveda was part of the subjects taught to the students. This Upaveda was derived from Samaveda and it is a well known fact that the entire Samaveda is meant to be sung. Gandharvaveda was mainly concerned with the art of singing, dancing, playing instruments but it also included dramatics. Later around the 3rd century A.D, an important treatise on music, dance and drama, the Natya Shastra was written by the sage Bharata. It described in detail the different modes of dancing, the gestures of hands and feet, the many different postures. It seems that even in the Vedic period dancing was practised by both men and women. We hear of some groups of ascetics or recluses, the Ajivikas, who used dance and music as a means of spiritual progress. In the Mahabharata, we find that Arjuna, the great archer, was also expert in dancing and, while Bhima served King Virata as cook, he , under the pseudonym of Brhannala, offered his services as a dance-teacher. He taught the art of singing, playing of various instruments and dancing to the royal princess, Bettara and her maids.

Dancing was one of the sixty-four arts that a cultured lady was expected to master. There were dancing-halls attached to the palaces, where women could practise regularly under the supervision of a professional teacher. Sometimes professional dancers used to come and give performances in front of the king and his court. But dance did not exist only in palaces. It seems that there were various kinds of popular dances in which the people took part. There was, for instance, a great performance of group dance by women folk at the birth of Rama. The Balacarita describes how the lads and maidens of the cowherds rejoiced by singing and dancing on festive occasions.

However, it would be wrong to suppose from what has just been said that the education of women was limited to so-called feminine arts. It appears that women had the possibility, if they so chose, to get trained in warfare. The Rig-veda speaks of girls joining the army in large numbers. They were so skilled that men did not regard it as shameful to fight with such women. In the Ramayana, queen Kaikeyi reminds her husband that she accompanied him in the battle and was even able to save him by pulling him away from the battleground at the time when he was wounded. Women of royal families were expected to undergo a training in Dhanurveda, to learn the skills of charioteering and horse-riding like kings and princes. During the Maurya dynasty, it is certain that there existed women warriors. Megasthenes, the Greek traveller, who visited India

at that time, speaks of armed women who served the king as his body-guards and escorted him while he went hunting. Megasthenes must have marvelled at this custom, as Greek women were expected chiefly to look after their household.

Let us add as a conclusion that ancient Indians, no less than ancient Greeks, used to enjoy public games. They took delight in watching skilled archers, mighty wrestlers or nimble acrobats. They were eager to admire their beautiful and healthy bodies. Many sports festivals were held on religious occasions. The festival of Samaja, in particular, which took place on every fifth day of new lunar months and which was dedicated to Saraswati, is believed to date back from Vedic times. These festivals organized by the kings gave people the opportunity of discovering the valour of the youth having finished their training period. Special arenas or stadia were constructed, depending on the kind of competition. Royal balconies were built. Galleries for spectators were erected and decorated with flags and flowers. Invitations were extend ed by the rulers who organized the festival by sending special envoys to different parts of the country. Of course, boys and girls were fond of these social gatherings and parents of young people studying at Universities like Varanasi or Taksila sent messages for their sons to come and watch the tournaments. These festivals lasted for days and were even celebrated during the whole night, as fires were kept burning till the appearance of dawn. Even that element which was so predominant in ancient Greek games — the element of poetry and art — was also there in ancient Indian games. Poets were present and tried to earn laurels by reciting their compositions. The crowd watched wonderful feats of archery, parades of war-elephants, wrestling competitions, horse races. To enliven the scene and entertain the crowd, outside the arena, musicians, acrobats, dancers exhibited their skills, tricks and performances. The drums and flutes of some orchestras added their joyous note to the general atmosphere of merriment and rejoicing. Watching these festivals must have been as exciting as being part of the Greek crowds at Olympia.

Greeks, like Indians, had the keenest appetite for activities of all kinds, physical, mental, emotional. They took delight in human achievements and particularly physical achievements. They enthusiastically admired all-round excellence, '"arete", and their heroes embodied their ideal. Yet there is a trend in the Greek conception of life which is intensely tragic: there was a keen sense that life, this life which they loved so fiercely, was so brief. As Homer puts in: "As is the life of the leaves, so is that of men. The wind scatters the leaves to the ground: the vigorous forest puts forth others, and they grow in the spring-season. Soon one generation of men comes and another ceases." The tragic note was produced by the tension between these two forces, passionate delight in life and apprehension of its unalterable framework. The Greek men wanted so much their fame to be immortal probably because they dreaded the dim shadowy life that was supposed to await them in Hades.

The Indian conception of life starts from a deeper centre. The Indian idea of existence is not physical but spiritual. Man himself is not matter, but a spirit that uses life and body and that gradually should move to self-discovery. This spirit can become one with God, one with the spirit of the universe. This belief in a gradual soul evolution with a final perfection is at the basis of the Indian conception of existence. So man was allowed to fill in life opulently with colour and beauty and enjoyment. But all activities were seen as opportunities for spiritual progress. To maintain one's body in good health, to train and discipline one's body, to delight in the breaking of one's bodily limits, all these human concerns and aspirations were recognized and encouraged, but they were seen as means of finding one's highest reality, the union with the supreme Self.

O God, may I become a vessel of immortality. May my body be swift to all works, may my tongue drop pure honey.

Perhaps the full implications of the importance of the body to the spirit and of the spirit to the body were not worked out. As a result, in the course of history, India tended to neglect bodily life. The time has come now when the right balance of the body and the spirit should be achieved under a new ideal of divine life in a divine body.

An **akhara** (Sanskrit and Hindi: अखाड़ा, sometimes shortened to *khara*) is an Indian word for a place of practice with facilities for boarding, lodging and training. It can either refer to a training hall used by Indian martial artists or a monastery for religious renunciates. In the context of the Dashanami Sampradaya sect, the word denotes a regiment. In some languages such as Odia the word is officially transcribed as *akhada*, by way of rendering the flapped [ɽ] sound as a *d*. The Haryanvi and Khari Boli dialects shorten this to *khada*(खाड़ा).

Similar to the English word *school*, the term *akhara* can be used to mean either a physical institution or a group of them which share a common lineage or are under a single leadership. Unlike the gurukul in which students live and study at the home of a guru, members of an akhara do not live a domestic or homely life. Some strictly practice Brahmacharya (celibacy) and others may require complete renunciation of worldly life. For example, wrestlers are expected to live a pure life, refraining from sex and owning few material possessions.

In its earliest usage, akhara referred to training halls for professional fighters. Govind Sadashiv Ghurye translates the term as "military regiment". Ancient use of the word can be found in the Mahabharata epic which mentions Jarasandha's Akhara at Rajgir. Legendary figures like Parashurama and Agastya are credited as the founders of the early martial akhara in certain regions of India. When the 8th-century philosopher Adi Shankaracharya founded the Dashanami Sampradaya, he divided the ascetics into two categories: Astradhari (Sanskrit: ??????????, lit. weapon-bearers) or warriors andShastradhari (Sanskrit: ???????????, lit. scripture-bearers) or intelligentsia. The former referred to the Naga sadhus, an armed order created by Shankaracharya to act as a Hindu army. These highly militant sadhu used to serve as mercenaries and thus were divided into akhara or regiments. Although they still carry weapons, the modern Naga sadhu rarely practice any form of fighting aside from wrestling. Today, akhara may be used for religious purposes or for the teaching of yoga and martial arts. Some of the noted Akhara organizations include, Akhil Bharatiya Akhara Parishad (All India Akhara Council), Nirmohi Akhara, Shri Dattatreya Akhara and Guru Hanuman Akhara.

Martial akhara

In modern usage, akhara most often denotes a wrestling ground and is typically associated with kusti. For wrestlers, the akhara serves as a training school and an arena in which to compete against each other. The akhara used by wrestlers still have dirt floors to which water, red ochre,

buttermilk and oil are added. Aside from wrestling, other fighting systems are also taught and practiced in akhara, which are commonly named after their founder. Indian martial artists may still practice in regional versions of traditional akhara today, but these are often replaced with modern training studios outside India.

The major martial akhara include:

- Agastmuni Akhara from Tamil Nadu in south India
- Hanuman Akhara from Maharashtra and the Dakhin plateu of central India
- Paika Akhara from Orissa on India's east coast
- Parashurama Akhara from Kerala in southwest India
- Shivakhara from the Himalayas
- Ranjit Akhara from the Punjab region of northwest India and northeast Pakistan.

Monastic akhara

The seven Shastradhari or monastic akhara founded by the 8th-century philosopher Adi Shankaracharya were:

#	Major Akhara	Minor Akhara	Smaller Akhara
1	Juna Akhara	Avahan Akhara, attached to Juna Akhara	Agni Akhara, attached to Juna Akhara
2	Niranjani Akhara	Ananda Akhara, attached to Niranjani Akhara	-
3	Mahanirvani Akhara	Atal Akhara, attached to Mahanirvani Akhara	-

The akhara with the most sadhu is *Juna Akhara*, followed by *Niranjani Akhara* and*Mahanirvani Akhara*. Among these, today, three are considered major akhara (Juna, Niranjani and Mahanirvani) and three minor akhara (Avahan affiliated with Juna, Ananda affiliated with Niranjani and Atal affiliated with Mahanirvani). The 7th, small Brahmachari(celibate) akhara named Agni is also affiliated with Juna Akhara.

Akhara are classified into one of the four different Sampradaya (sects) based on their traditional systems:

- Shaiva for the followers of Shiva
- Vairagi for the followers of Vishnu

- Kalpwasis for the followers of Brahma
- Udasin for the followers of Sikhism

Organization

An akhara is governed by the sacred body of five *Sri Pancha* and divided into 8 *dava*(divisions) and 52 *marhi* (मढ़ी). The marhi are centres of practice, led by a *mahant* or spiritual leader. Smaller akhara, some as small as having only one marhi, may be set up either as an affiliate to a larger group or occasionally totally independent due to disagreements over succession.

Sri Pancha

The top administrative body of each of the akhara is the *Sri Pancha* (sacred body of five), representing Brahma, Vishnu, Shiva, Shakti and Ganesha. It is elected by consensus from among the Mahants of *Marhi*s that make up an akhara on every Kumbha Mela and the body holds its post for 4 years. It is a concept similar to centuries old Indian republican consensual elective system of Panchayat (at an individual village level) and Khap (grouping of the related villages within a union).

Among the five elected *Sri Pancha* of the akhara, they hold the following positions in the decreasing order of seniority, all of which can be considered guru in their own right:

- Acharya Mahamandaleshwara, the chief divisional leader of spiritual order of the God
- Mahamandaleshwara, the senior divisional leader of spiritual order of the God
- Mandaleshwara, the divisional leader of spiritual order of the God
- Sri Mahant, the senior spiritual leader
- Mahant, the spiritual master. Each *marhi* within the akhara is governed by a mahant.

Y.M.C.A. and its contributions.

The YMCA's mission challenges YMCAs the world over to "strive for spiritual, intellectual and physical well-being of individuals and wholeness of communities". It is a holistic approach to development, symbolized by the well-known YMCA triangle representing body, mind and spirit.

Today the YMCA is famous for its health and fitness programmes, run in thousands of communities. The YMCA has made, and continues to make, some incredible contributions to the history of sport. But this has not always been the case. When physical education was first introduced to YMCA work, some questioned whether this was really the role of the YMCA which was created to provide spiritual and intellectual services to young men.

Our History - A Brief History of the YMCA Movement. The Young Men's Christian Association was founded in London, England, on June 6, 1844, in response to unhealthy social conditions arising in the big cities at the end of the Industrial Revolution (roughly 1750 to 1850)

The YMCA Movement originally began in post-Industrial England of 19th century in London in the drapery establishment of M/s Hitchcock and Rodgers in which a young apprentice of 21, George Williams, took initiative in organizing Bible classes in his bedroom in the nature of a mutual edification society which brought in a cohesive group of twelve of his co-workers in the establishment from nearly as many denominations of the Christian church to form the very first Young Men's Christian Association on June 6, 1844 on 72, St. Paul's Churchyard (destroyed during aerial bombings in World War II though, a memorial plaque still remains today at the site where the original building stood). The first World Conference of the YMCAs took place in Paris in August 1855 which enacted the foundational principles of the Movement, the Paris Basis. The historic statement defined the basis for membership.

The march of time saw the World YMCA Movement providing a more contemporary interpretation to the Paris Basis in the Kampala Principles of 1973 and in the Asian context this was further redefined contextually as the Manila Declaration of 1977. In 1998, at the XIVth World Council of YMCAs in Frechen, Germany, the World YMCA Movement enunciated the "Challenge 21" statement of affirmation. The YMCA movement is the oldest largest lay, Christian, ecumenical, membership movement in the world spread across 12000 local associations in 125 countries with 45 million members.

Meeting the needs of the whole person through sport

It was the YMCA of the USA that first grasped the importance of offering physical education to young men as a way of meeting the needs of the whole person. They also realized that local YMCAs that included sports in their programmes survived, whilst the others did not. The renowned YMCA triangle, which gave physical education equal recognition with spiritual and intellectual activities, was designed by Dr. Luther Gulick from the YMCA International Training School in Massachusetts, USA and was adopted in 1891. Gradually physical education came to be accepted as a core YMCA activity, based on the principle that "Any good programme which does not consider the whole person is incomplete."

Besides the obvious benefits of promoting health and fitness, physical education has served many purposes in the YMCA. For example, it encourages social interaction, a sense of belonging and friendship. It also serves to promote the Christian ideals and values of the YMCA such as fostering a team spirit and working together. In the early days, YMCA sports programmes were seen as keeping young men out of trouble and encouraging clean, healthy lifestyles.

Amongst its amazing contributions to the history of sport, perhaps the YMCA's invention of basketball and volleyball are two of the most well known.

The inventor of basketball was a Canadian, James Naismith, who was working at the time for

the YMCA International Training School in Massachusetts, USA, which later became the YMCA Springfield College.

In 1891 the director of the Physical Education Department of the YMCA Training School, Dr. Luther Gulick, challenged his students to invent a new game. He wanted a game that could engage his students and that could be played indoors. At the same time Dr Gulick assigned James Naismith to a class of boys who were completely disinterested in the usual exercises and sports. Naismith became determined to invent a game for his "class of incorrigibles".

Naismith wanted to invent a game that was easy to learn. He also wanted a game that avoided tackling. He realised that if players can't run with the ball, there is no need for them to tackle, so the chance of injury is much less. Next, Naismith focused on the objective of the game. He found inspiration when he realised that, "If the goal was horizontal instead of vertical, the players would be compelled to throw the ball in an arc; and force, which made for roughness, would be of no value."

The first time basketball was played, on 21st December 1891, the boys used two old peach baskets as goals. The game was an instant success. In 1936 basketball became an Olympic sport for the first time and today it is played by millions the world over.

At around the same time, in 1895, William G. Morgan, an instructor at the YMCA in Holyoke, Massachusetts, sought to invent a game for his classes that would involve less physical contact than basketball. The result was volleyball – a mix of basketball, baseball, tennis and handball. The net that he used was 6 feet 6 inches high, just taller than the average man.

Volleyball soon became extremely popular in the USA and, through the YMCA network, spread first to other parts of the Americas and then to other continents. By 1951 it was being played by over 50 million people in over 60 countries. In 1957 volleyball also became an Olympic sport.

International competitions

Besides inventing many new sporting games and helping physical activity to become recognized as a valuable educational tool, the YMCA also played an important role in developing large scale international sports competitions.

In 1918, a YMCA leader by the name of James H. McCurdy, realized the need "for an extensive programme of sports and recreation in the immediate postwar period that would bridge the gap and ease the transition between military service and civilian life". The result was the Inter-Allied Games, the biggest international sports event that had ever been held at that time. The organizers included an impressive range of indigenous sports such as Arabian camel fighting, to attract as many countries as possible to compete. The Games, attended by 25,000 people, were a huge success.

The YMCA also organized its own international sporting events. In 1927 the first International

YMCA Athletic Championships were held in Denmark bringing together amateur athletes from many different countries.

The YMCA has close historical ties with the modern Olympic Games. In 1929 the World Alliance of YMCAs was awarded the Olympic Cup by the International Olympic Committee for its services to sports. From 1948 to 1988 the World Alliance of YMCAs organized conferences to coincide with the Games for YMCA representatives "to share new/successful health, fitness, nutrition, physical education, recreation and sports programmes". The YMCA has always emphasized not just the playing of sports, but research associated with it.

Sports for prisoners of war

"Tell them we'd have gone nuts if it hadn't been for the Y." This was a message sent by an American prisoner of war during World War II, praising the work of the YMCA. YMCAs sent sports equipment to prisoners in several countries: German prisoners in the USA alone received 10,000 footballs. YMCAs arranged for sports to be played in the prison camps and were able to make prizes available to maintain the men's interest.

Sport for all

YMCAs offer sports programmes to people of every social and economic background. But what kind of physical education should be offered to a malnourished child? YMCAs are providing impoverished children and young people with fun, healthy forms of physical exercise and simple games that require a minimum of equipment. And at the same time they are addressing poverty through issues such as maternal and child health care, nutrition, hygiene and living conditions and income-generating activities.

An important YMCA principle is that health and fitness should be affordable for all and prices are kept low. In many cases subsidies are available for low income households to join YMCA gyms or fitness classes. In other cases sports programmes are completely free. YMCA health and fitness activities aim to be inclusive. In some countries such as Kosovo, YMCAs have programmes for the disabled. Others offer rehabilitation exercises for those recovering from serious illnesses. In the USA local YMCAs have adapted classes so that Muslim women feel comfortable exercising there.

Another important YMCA principle is that sports should bring the community together, rather than encourage individualism. For example in India, the YMCA adopted indigenous games in rural areas that fostered community-building, such as kabaddi and kho-kho.

The YMCA and sports have a long, inter-twined and impressive history, one which is still being played out today by millions of members across the world.

Annual Campaign Scholarships

The YMCA believes in providing membership and program services to all who desire to participate. The philosophy of the YMCA is to not turn anyone away due to inability to pay. Annual Campaign scholarships benefit more than just kids. Annual Campaign scholarships change lives for families, seniors and children in our community. Donations to Strong Kids will make participation at the YMCA possible for many people. Scholarships can teach a child to be safe in the water through swim lessons; provide quality before-and-after school care for a young child; provide full-time child care for needy families; build self-confidence and provide valuable training for youth in our community through our Youth & Government program, and instill a sense of community value, trust, teamwork, leadership and independence at Resident Camp Nan A Bo Sho.

- More than 9,500 individuals have benefited from Annual Campaign Scholarships at the YMCA in 2013.
- More than $1.2 million in Annual Campaign Scholarships was awarded at the YMCA in 2013.
- 1 in 4 YMCA Members are Annual Campaign Scholarship recipients.

Heritage Club

Endowment gifts help make our community a safe and healthy place for children, families, teens and seniors to live. Gifts touch lives and create a promise for generations to come. That promise builds a legacy to help preserve the mission of the YMCA.

The Heritage Club is composed of individuals from all backgrounds and walks of life who have made outright or planned gifts to the YMCA endowment fund in one of the following ways: Gifts of Cash, Appreciated Assets, Life Insurance, Gifts through a Will, or Gift through a Trust or Annuity.

Capital Developmental

The YMCA, through contributions to its Capital Campaign, was able to fulfill its mission of facility expansions and renovations. Over $8.4 million was contributed to remodel current facilities, build additions and introduce innovative new programs, which helped us build the foundation for personal success for new generations and strengthen every aspect of our community.

YMCA in INDIA

The YMCA tradition is not new to India. Way back in 1857 synchronous with the First War of India's independence, the very first YMCA in Asia took roots in the-then Calcutta, the second Capital of the British Empire. In 2007 the Indian YMCA movement joined the YMCA Calcutta in celebrating the 150 years of the YMCA in India. The National Council of YMCAs of India

was formed on Madras on February 21, 1891 through the initiative of David McConaughy, who also became the first National Secretary of what then was called the Indian National Council of YMCAs, the forerunner of the National Council of YMCAs of India. The national headquarters shifted to 5, Russell Street in May, 1902 and in 1964, it finally shifted to the old one-storey Massey Hall where it was located till 1975 with the very last relocation thereafter till date in the three-storeyed Bharat Yuvak Bhavan on Jai Singh Road, New Delhi-110001 in 2002.

YMCA CALCUTTA AND THE EARLY BEGINNINGS

The YMCA in India took roots in what is now Kolkata, way back in 1857, though a beginning was made in August 1854. On February 27, 1857, the Calcutta Christian Juvenile Society of 1822 formed by John Lawsan, a Baptist Missionary associated with William Carey, changed its name to Calcutta Calcutta YMCA . This was the beginning of the very first YMCA in Asia to be followed by the one in Colombo, Trivandrum, Bombay, Madras and several others. By the 1880s there were several YMCA's in South India. In 1890, David McConaughy, a young American from the International Committee of the American YMCAs arrived in Madras and founded the very first YMCA there. He was later instrumental in forming the Indian National Council of YMCAs, the forerunner of the National Council of YMCAs of India, after a conference in 1891. The National Council of YMCAs of India is the apex body of the Indian YMCAs entrusted with guiding and overseeing in general the activities of its affiliated associations and providing a direction to the Indian YMCA Movement as a whole.

THE GENESIS OF THE NATIONAL COUNCIL OF YMCAs OF INDIA

David McConaughy convened an All-India Convention of the then 35 local associations along with a few smaller associations set up in the London Mission area of Travancore by lay Missionaries, Dr. E. Sherwood Fry of Neyyoor. The Convention, during February 20-21, 1891 at the Madras Association of the YMCA in Esplanade adopted a Resolution for constituting a National Council. The first Indian National Committee comprised 17 persons. The headquarters for the National Committee was in Madras for one year and the Convention unanimously elected Mr. S. Sathianadhan as Chairman, W.R. Arbuthnot as Hony. Treasurer and David McConaughy as its first Secretary. The national headquarters was situated in Calcutta between 1891 and 1964 at 9, Russell Street and later at 5, Russel Street, finally shifting to New Delhi in 1964 at Bharat Yuvak Bhawan, 1, Jai Singh Road. The National Council celebrated its centenary in 1991. The

first Indian Bishop V.S. Azariah was the first Indian YMCA Secretary and K.T. Paul OBE, an associate of the Mahatma Gandhi, the first Indian National General Secretary in 1916.

SPREAD OF THE INDIAN MOVEMENT

The India YMCA Movement has 588 affiliated and 450 non-affiliated local associations across nine Regions of the country with the membership standing at around 2 lakhs, comprising both men and women. There are at present 140 YMCA Professional on the national cadre of Secretaries in India. The Indian YMCA is the second largest network of YMCAs in the world next only to the USA and is an affiliate of the World Alliance of YMCAs and the Asia & Pacific Alliance of YMCAs which groups 27 member-movements. The Indian YMCA is a Christ-centered, youth-focused and mission-oriented movement. The YMCA mission in contemporary India was defined and adopted at the XXIXth National Triennial Convention of the National Council of YMCAs of India at Madurai, Tamil Nadu in 1998.

Foundation of Physical Education

Foundations of Physical Activity and Public Health is the first textbook to clearly define the intersection of kinesiology and public health. Authors Kohl and Murray, both leaders in the field, offer a solid introduction to the concepts of public health and kinesiology, the techniques used to measure physical activity, and the health effects of exercise and physical activity. The scientific findings and applications that led to the emergence of the field of physical activity and public health are also examined. Students will come away with a greater understanding of how experts from both fields can work together to advance the use of physical activity for the prevention and treatment of chronic disease and other health issues.

Foundations of Physical Activity and Public Health describes how physical activity improves health, including cardio respiratory and metabolic diseases, overweight and obesity, musculoskeletal disorders, cancers, and mental health. Data on the prevalence and economic costs are presented to demonstrate the scope of the health issues and the importance of addressing them. Information on common testing methods, evidence on the benefits of physical activity, and recommendations for physical activity will give readers the background knowledge for promoting physical activity as a means of improving health. The health risks associated with physical activity are also discussed. Information on the prevalence of problems, the adaptive processes that can help prevent injury, and minimizing risks will prepare students to consider and address safety concerns.

The text examines evidence-based strategies for increasing physical activity in individuals and populations using three general approaches: informational, behavioral and social, and environmental and policy. Examples of successful programs from various settings, including community-wide and school-based interventions, help students understand how to apply the theory to practice. Students also learn the concepts of evaluation of physical activity programs as well as logic models, evaluation designs, data collection, and analysis. In addition, building

effective partnerships for physical activity programs is discussed alongside real-world initiatives such as the state plan Active Texas 2020, the U.S. National Physical Activity Plan, and the Toronto Charter for Physical Activity. Strategies and models for physical activity advocacy are also addressed.

The text features a wealth of pedagogical aids that will enhance students' learning experience. Chapter-opening summaries and question lists detail key concepts to focus on, case studies and callout boxes provide real-world examples that tie theory to practice, and Key Leader Profile sidebars allow students to explore career options while learning more about individuals who have had a major impact on this emerging field. Each chapter ends with a review of the most important ideas covered, key terms, and study questions that will help students test their recall and develop their understanding of the material. Full bibliographies are provided as well as valuable online resource lists in the E-Media sections. For instructors, ancillaries are available to assist in teaching their courses.

Foundations of Physical Activity and Public Health is also an asset to new professionals as well as those preparing for the ACSM/NPAS Physical Activity in Public Health Specialist certification exam. The text addresses the core competencies put forth by NPAS—including partnership development, planning and evaluation, development of effective interventions, and evaluation of scientific data—and is cross-referenced at the end of each chapter for easy review.

As the emphasis on physical activity as a tool for improving public health grows, the expertise of professionals with the combined knowledge and skills from both the public health science and exercise science fields will be highly sought. *Foundations of Physical Activity and Public Health* will help students obtain an overview of the kinesiology and public health areas, understand physical activity applications for public health, learn about career options, and inspire them to choose a career in the emerging field of physical activity and public health.

PHYSICAL EDUCATION IN ANCIENT SOCIETIES

Beginning

Egypt

China

Greece

Roman Empire

Beginning-6000 B.C. (Physical Education for Survival)

• *Aims of Physical Education* : To increase the chances of group survival, the tribe encouraged youths to develop the strength, endurance, agility, and skills needed to withstand the danger of outdoor life, to obtain the necessities of life.

• *Promotion of P.E.* : Parents, medicine men or shamans, and other tribal leaders informally acquainted youths with the skills and knowledge they would need as adults.

• *Program of P. E.* : Games of war, games of chase, and tag, dancing and other forms of rhythmic activity generally related to religious beliefs, play and physical activities related to self-preservation skills.

• *Methods of P.E.* : Imitation, indoctrination, and trial and error methods were the basic means of educating children.

PHYSICAL EDUCATION IN EGYPT(3000-1100B.C.)

• *Aims of P.E.* : The vocational, recreational, and religious objectives of p.e than in military or health objectives.

• *Promotion of P.E.* : Apprenticeship was the mode of education in Egypt.

• *Program of P.E.* : Swimming was one of the popular sports even among women, dance, archery, lion hunting, fishing, stick fighting, acrobatics, ball games etc.

• *Methods of P.E.* : Under the apprenticeship system, youngsters learned by imitating the movement of their parents or tutors.

PHYSICAL EDUCATION IN CHINA (1700-800 B.C.)

• *Aims of P.E.* : In the earlier times (before Taoism, Buddhism and Confucianism) bodily conditioning played a more important role in Chinese society than later times.

• *Promotion of P.E.* : Some authorities believe that more than four thousand t-years ago the Chinese not only originated schools but also had state education officers and a system of national education examinations.

• *Program of P.E.* : Wrestling boxing, football, archery (military purposes), polo, hunting, fishing, swimming, flying kites, light exercises(eg Cong Fu) etc.

• *Methods of P. E.* : Little is known how they taught motor skills probably learned by doing and by following the example of their elders.

Physical Education for the Homeric Greeks

• *Aims of P.E.* : The overall aim of p.e. was to develop the man of action. Every citizen was a soldier and physical fitness was a necessity.

• *Promotion of P.E.* : During the Homeric age there were no formal educational institutions. The agencies of education were the family or clan.

• *Program ofP.E.* : (Iliad and the Odyssey- Funeral-chariot race-boxing-wrestling-foot race-javelin throw). Dancing was another activity the Greeks participated from the earliest times. Some sport activities were reserved for the aristocrats, particularly chariot racing, boxing, wrestling and running.

• *Methods of* P.E.: Children acquired their education by imitating the adults, pay attention to the feast or funeral games, listening to the exciting tales of the gods, memorizing the great epics, and absorbing the wisdom of the council meetings.

Physical Education for the Early Athenians

• *Aims of P.E.* : In Athens, p.e. was an integral part of national life not only in the need to prepare citizens for war, but also in the Greek ideals of beauty and harmony (Aesthetic). Moral and spirit training using sports.

• *Promotion of P.E.* : Much less regulated than in Sparta. The state gave no financial support tp formal education. Government concerned with safeguarding the morals of the youths than with prescribing age, courses, methods or supervision. Father determined the child's physical fitness-free education for children whose fathers killed in fighting's for Athens. Girls remained at home until they married. No physical or intellectual education only household arts. They did not participated in social and political life with men. Two kinds of private elementary schools-palaestra (wrestling) for p.e. and didascaleum (music) for literature, music, and arithmetic.

Physical Education for the Spartan Greeks

• *Aims of P.E.* : Spartan p.e. was designed to develop a man of action who possessed brute strength, physical endurance, unflinching courage and military skill.

• *Promotion of P.E.* : Only the healthy and strong children were allowed to live by a council of elders. Until the age of seven the mother was responsible fort the training of the child. The more formal education system, called ‘‘agoge" was supervised by the superintendent (paidonomus). Stage in education, after 18 concentrated on military exercises. Spartan would remain in military services until he was at least 50. The youths were grouped into companies of 64 with a selected leader. Four of these companies were combined into a troop. At the age of 30, a man gained full citizenships. expected to marry and take a seating the council but still live in public barracks. The education of Spartan women was similar to that of men. Divided into different classes and participated in same exercise but live in only home. Great success in Ancient Olympics between 720 B.C. and 576 B.C.

• Program *of P.E.* : The Spartan curriculum consisted almost entirely of a military training. Gymnastic exercises were the main means of education for beginning youths. They engaged in running, fighting, leaping, swimming, hunting, wrestling, hiking, boxing, playing ball, throwing discus, and javelin, and competing in arena.

• Methods *of P.E.* : Periodic testing by the state officials (ephors) was administered to evaluate the boy's physical capacity and citizenship. Praise and punishment used. Flogging was the universal penalty.

PHYSICAL EDUCATION IN THE MIDDLE AGES AND EARLY MODERN TIME

Physical Education for Medieval Disciplines

Early Christian disciplines

Moral discipline

Social discipline

Intellectual discipline

Physical Education in Humanistic Education (Renaissance period)

PHYSICAL EDUCATION FOR INTELLECTUAL DISCIPLINE

Aims of P.E. **: Scholasticism was devoted to define and limited intellectual objectives. Because of the preoccupation with theological scholasticism, and because many ascetic attitudes toward the body still persisted, the need of p.e. went unheeded.**

• *Promotion of P.E.* : About the 11 Th. century the monasteries began to decline in educational importance. Cathedral and parish schools operated by the secular clergy gradually became the dominant educational institutions. However, none of these institutions gave formal attention to p.e.

• *Program of P. E.* : P.E. was not part of the university curriculum nor did the university authorities encourage participation in sports and games outside of school. However, there are enough references to university students participating in sports.

• *Methods of P.E.* : Scholasticism was an intellectual and religious training. Logical analysis, reasoning, debate, lectures were employed in schools and p.e. was never a part of curriculum.

PHYSICAL EDUCATION FOR SOCIAL DISCIPLINE

• *Aims of P. E.* : Physical education was the core of the chivalric curriculum, in which youths were to acquire military prowess, social graces, and sports skills. however, unlike the Greek, the medieval noble was not concerned with developing a beautifully proportioned, graceful body. Military obligations, and fight for the cause of the Church.

• *Promotion of P.E.* : Education was provided by the home, the castle, and the Church. The majority of noble youths aspired to become knights, and they received their education in the castle or palace school. Girls were also sent to the castle for their training, which emphasized the courtly graces. The formal education of the youth was in two stages: page-henchmen (7-14) and squire (14-21). 7 years service eligible for being knight. Conferring knighthood was a religious ceremony that took place on some great military occasion or Church holiday e.g.. : Easter, Christmas.

PHYSICAL EDUCATION IN HUMANISTIC EDUCATION (THE RENAISSANCE PERIOD)

• *Aims of P.E.* : The central interest of philosophy became humankind rather than God, and this new perspective was designated humanism.

• *Promotion of P.E.* : the Renaissance educators no longer followed the tenets of authoritarianism and scholasticism promoted in medieval times. Instead, they developed new programs of liberal, humanistic education that included a prominent place for physical training as well as education in personal manners and moral standards.

• *Programs of P.E.* : The Athenian ideal of the harmonious development of the mind and the body was rekindled. increased attention was given to health education and particularly to the importance of physical exercise. Fencing, archery, sport tournaments, war-like activities were popular as were ballets, dancing, bowling, and tennis. ‘‘ Whole man" was accepted as a guiding principle.

PHYSICAL EDUCATION FOR THE EARLY CHRISTIAN DISCIPLINES

• *Aims of P.E.* : Effects of religion-Body obstructed the cultivation of the soul-Most churchmen opposed p.e and Church suppressed many sports and games and failed to include p.e. in the school curriculum. The body was mortal and little consequence to a man looking for eternal salvation-save your soul-

• *Promotion of P.E.* : Early Christian education was very informal, but when the Church became established, catechumental schools were founded to provide instruction for converts who desired to become members. Parents who wanted their children to receive some general education had to send them to the pagan schools (closed in 529 A.D. Emperor Justinian). When the Church had perfected its organization, new Christian schools were established and practically the sole centers of learning in Western Europe. The Church schools were not agencies of p.e., but it fostered religious dancing.

• Girls and women were encouraged to participated in certain aspects of p.e. such as horseback riding dance but they were not encourage to engage in sporting games just to be spectators.

• *Methods of P.E.* : Textbook methods of education was a new approach in teaching p.e.

• *Program of P. E.* : Considerable time was devoted to the development of skills essential for performance in battle. holding a tournament was naturally the favorite peacetime amusement of the people.

• *Methods of P.E.* : Observation or direct participation are two ways for noble to acquire the skills.

Program of P.E. :The informal education of early Christian youth was moral, religious and emotional. In the formative period of the Church, the catechetical schools of the East offered theological and secular studies integrated the Roman and Greek culture. When the Western Church powers soon became critical and tended to inspire heretical views. When the Western Church established the monastery and cathedral schools, education became confined largely to Church doctrine, theological studies, rituals; pagan literature, art, science, philosophy, and p.e. were neglected. Some early Church fathers e.g.. Clement did advocate p.e. in the schools recommended wrestling, ball-playing, and walking. No changes occurred suddenly, 5th century Bishop Sidonius reported he enjoyed running, swimming, and hunting as a boy. The church authorities were not necessarily opposed to health and cleanliness, but they felt that nude and mixed bathing were partly responsible for the immoral practices that were undermining Roman society. In 394 A.D. Theodosius, an early Christian emperor abolished the Olympics, and the last gladiatorial exhibition was held in Rome in 404 A.D. Dancing was a means of religious expression for the early Christians. Later, the religious dances were also degenerated.

• *Methods of P.E.* : The teaching standards of the early Middle Ages fell short of those established by Jesus. As educational content became systemized, the question and memorized answer method of education was adopted.

Physical Education for Moral Discipline

• *Aims of P.E.* : Monasticism was an educational ideal designed to nourish the spiritual rather than the physical being. Men were to develop the beauty of their souls not their bodies. The Dark ages were a sterile period in p.e. The monks censured all physical and aesthetic activities pursued by worldly pleasures. However, physical fitness was never part of the aims of monastic education, the doctrine of labor helped to keep the monks busy. St Benedict proclaimed ‘‘ Idleness is the enemy of the soul, therefore the monks should always be occupied, either in manual labor or in holy reading.

Physical Education For Moral Discipline

• *Promotion of P. E.* : The monasteries and convents were practically the only schools in existence from the 6 to 1 centuries, with the exception of the less important cathedral schools, a few secular guild schools in Italy, and the palace schools of Charlemagne and Alfred the Great.

Program of P.E. : The curriculum was not really liberal, for practically all subject matter was directed toward theology. Physical education activities was not part of this monastic curriculum. The early monasteries failed not only to provide any formal physical education content in their school program but also attempted to suppress the spontaneous play of youth.

Methods of P.E. : The main methods of teaching were memorization, imitation, and question to answer.

Physical education in the United States

European Influences:

British
German
Swedish

The Battle of the Systems
Early Twentieth Century
Warmtime influences
Playgrounds
Leisure Education
Professional certification

Current Trends

Decline in scholl enrollment
Coaching credential
Equality for women
Growth of competitive sports
Extramural sport for children
Increased emphasis on research

BRITISH INFLUENCE

Sports and games were forbidden to the students in certain institutions of higher education in early America.
The strong heritage of British sports prevailed over the obstacles in higher education in the US.

GERMAN INFLUENCE

In 1774, Johann Bernhard established the first physical training program on daily basis in Germany.
Johann Guts Muth one of the most important pioneers of modern PE in Europe. Many of his ideas were brought by German immigarnts to America and were established in early American Schools.

SWIDISH INFLUENCE

Royal Central Institute of Gymnastics was established in Stockholm in 1814 to train PE teachers. Concepts of PE in Swede at the time of the discovery of America had a scientific basis in the study of human anatomy. American schools took major features of Swedish system.

THE BATTLE OF THE SYSTEMS
The conflict between physical education leaders' on: Establishing a nationally oriented system Surviving adopted systems(especially German and Swedish)

EARLY TWENTIETH CENTURY

Wartime influences: American involvement in wars always provokes interest and attention to physical education, physical training and physical fitness. Playgrounds: following World War I playground movement expanded rapidly. During 1930's federal Government constructed many facilities. Scholl districts contracted with communities to utilize facilities. Leisure education: in 1918 Seven Cardinal Principles of Education were published. One of the seven cardinals was " the worthy use of leisure". Many private, semi private and public agencies have provided significant programs for leisure. Professional Certification: Since World war I 50 states instituted requirements for the certification of teacher of physical education.

CURRENT TRENDS

Decline in School Enrollment: Attendant closing of schools Decreased employment opportunities for new teachers, Lack of new blood, One positive effect is that there is no longer the necessity to employ less than qualified emergency credentialed teachers. Coaching Credential Coaches in public schools must attain the special coaching credential before the school assigns them. Equality for women: Title IX .Growth in Competitive Sports : facilities are used for class instruction, intramural participation, interscholastic competition, and for community recreation.

Extramural Sport for children: programs under non-school auspices. Increased Emphasis on Research: More people are being trained in research concepts, Universities and colleges are providing larger research facilities, More specialized journals are becoming available.

OLYMPIC GAMES B.C. 776- A.D. 393
ANCIENT OLYMPICS AD393-1896 TRANSITION PERIOD-15 CENTURY
1896-2000 MODERN OLYMPICS Baron Pierre de Coubertin (1862-1937)

ANCIENT OLYMPIC GAMES

* While the exact origin is unknown, the ancient Oliympic Games were held in a valley at Olimpia in Greece and the earliest recorded Olympic competition was in 776 B.C.
* It was held every four years.
* For many years only one event was known: the stadium race (192 m). From 724 B.C. onwards new were added: two stadia race, "dalicus race" (approximately 24 stadia), wrestling, the penthathlon (720 B.C.), boxing (708 B.C.),…
* From 752 B.C., the price was a wreath of wild laurel called "Athlus". At first the games lasted only one day, but as new events added they were extended to five days, three for the races and two (the first and the last day) for ceremonies and sacrifices.

The only purpose was to become 1st. in the races. It was nonsense to become 2nd. In the games.
Numerous factors and events contributed to the decline of the Olympic Games: need for learning, the influence of Macedonian and the East, the occupation of the country by the Romans, the bribing of the athletes and radical charges in the composition of society and the lives of people.
* Finally, political reasons forced Emperor Thedosius I to forbid all pegan festivals and the celebration of the Olympic Games in 393 A.D.
* After 394 A.D. "Olympia" (four years between games) became a mass of ruins, as a result of earthquakes, fires, bloods, barbarian attacks and invasion.

EARLY HISTORY

* Beginning: honour of Zeus, Pelops start in 776 in B.C. (there was apperently only one event, the stade (192m.) but other events were added.
* Diaulos (two length race- nearly 400m.) in 724 B.C.
* Dolichos (a long distance race 1500 or 5000 m.) in 720 B.C.
* Wrestling and Pentathlon (the long jump, javelin, discus, foot race, and wrestling) in 708 B.C.
* Boxing in 688 B.C.

* Chariot race in 680 B.C.
* Pancratium in 648 B.C. (wrestling, kicking, hitting but no biting and gouging)

EARLY HISTORY

* Between 632-616 B.C. events for boys were introduced.
* Until the 77th Olympiad (472 B.C.) all of the contests took place on one day later they were spread over four days, with a fifth devoted to closing-ceremony presentation of prizes, and a banquet for the champions.
* Women were not allowed (priestess of demeter or owner of horses in chariot race)
* In most events the athlates participated in the nude.
* During the Greek period the games were restricted to freeborn Greeks.

The Events of Olympic Games

Running: is the first event of the Olympic games. The stadia was 192 m race. Then two stadia and dalicus races (24 stadia) added. The surface was dressed with sand and the runners feet were naked.

Jumping: It was different from modern jumping event: the jumpers were using weights. Althoug the purpose of the weights is not known, some historians say that the use of weights is to bring jumping firmly to his landing.

Discus throwing: The discus was made of stone and weighed much more than the one used now.

Javelin Throwing: Javelin was thrown by Greeks with the help of a thong looped over the first finger of the throwing hand.

Boxing: Boxing matches were continued interrupted until one of the competitors was knocked out or held his hand up to accept defeat.

Wrestling: There is no idea about the style of Greek wrestling but it is known that Greek wrestlers rubbed olive all over themselves before training or competition. This was a hygienic measure, designed to keep sand and dust out of the pores.

Penkration: Combination of wrestling and boxing where the aim was not to throw the opponent but bring him to a point where he was compelled to admit defeat as in boxing.

Penthatlon: combination of five events: running, jumping, throwing the discus, throwing the javelin, and wrestling.

Re-establishment of the Olympic Games Transition Period

. Olympics idea in the Theatre Stages
. "Games of Devil"
. Renaissance and Olympic Idea
. "Olympic Games" in England (17 th Century)
. Local Olympics in Greece (185 9, 1870 and 1888)
. "Olympics" as a Part of the History

Olympics Games

First Period (1896 – 1912)

Second Period (1920-1936)

Third Period (1948-2000)

International Olympic Committee

The IOC was created by the congress of Paris of 23 rd June 1894.
It was a body corporate by international law having juridical status and perpetual succession. Its headquarters are in Switzerland.
It is not formed for profit and its aims are:
. To encourage the organization and development of sports and sports competitions,
. To inspire and lead sport within Olympic ideal, thereby promoting and strengthening friendship between the sportsmen of all countries,
. To ensure the regular celebration of the Olympic Games,
. To make the Olympic Games ever more worthy of their glorious history and of the high ideals which inspired their revival by Baron Pierre de Coubertin and his associates.

Members of the IOC are representatives of the IOC in their countries.

PHILOSOPHY OF OLYMPISM

Olympics have their philosophy which, together with the development of physical skills, aims at improving the mind, thus leading to harmonious and symmetrical formation and improvement of human.

Olympic embraces world society without any discrimination. It does not appeal to one group or class of people, a race or a given nation, but to all human beings of the world

The essence of the philosophy of Oly mp i s m is the education of man at the social, cultural and national level. The development of an independent, free, well balanced and strong-willed human being.

Olympic Movement Philosophy Primary source of Olympic Movement: Olympic Games Other Activities of the Olympic Movement

. Promotion of sport and Competitions
. Cooperation with public and private organizations
. Encouragement of the development of "Sport for All"
. Promotion of Women in Sport at all Levels and Structures

Olympic Movement Philosophy

" The main purpose of the IOC and the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport, practiced without discrimination of any kind and in the Olympic Spirit, which requires mutual understanding, friendship, solidarity and fair play."

Re-establishment of the Olympic Games " The important thing in the Olympic Games is not winning but taking part. The essential thing in life is not conquering but fighting well". Barron de Coubertin

OLYMPIC MOVEMENT PHILOSOPHY

Using competitive Sport as a member as a Means of developing a healthy body, providing entertainment and also education. A philosophy teaching humans "Fair Play" The Olympic Movement as a Means of promoting world peace.

Re-Establishment of the Olympic Games Barron Pierre de Coubertin (1863-1937) . Ideas in 1889 . "International Athletic Congress" in 1894:
1. Four Year Period
2. Open to Everybody Including the Popular Sports
3. Only Adults
4. "Amateurism" Rules
5. Mobile Organization
. Establishment of IOC (International Olympic Committee)

Olympic Games (1)
First Period 81896 – 1912)

		#	Year	Country	Male	Female	Total
ATINA		1	1896	14	245	0	245
PARIS		2	1900	26	1206	19	1225
ST. LOUIS		3	1904	13	681	6	687
ATINA		*	1906	20	877	7	884
LONDON		4	1908	22	1999	36	2035
STOCKHOLM		5	1912	28	2490	57	2547

•Mid Olympic Games

Olympic Games (2)
Second Period (1920 – 1936)

	#	Year	Country	Male	Female	Total
ANVERS	7	1920	29	2591	78	2669
PARIS	8	1924	44	2956	136	3092
AMSTERDAM	9	1928	46	2724	290	3014
LOS ANGELES	10	1932	37	1281	127	1408
BERLIN	11	1936	49	3738	328	4066

Olympic Games (3)
Third Period (1948 -2000)

	#	Year	Country	Male	Female	Total
LONDON	14	1948	59	3714	385	4099
HELSINKI	15	1952	69	4407	518	4925
MELBOURNE	16	1956	72	2958	384	3342
ROMA	17	1960	83	4738	610	5348
TOKYO	18	1964	93	4457	683	5140
MEXICO CITY	19	1968	112	4750	781	5531
MUNICH	20	1972	121	6065	1058	7123
MONTREAL	21	1976	92	4781	1247	6028
MOSCOW	22	1980	80	4092	1125	5217
LOS ANGELES	23	1984	140	5230	1567	6797
SEOUL	24	1988	159	6279	2186	8465
BARCELONA	25	1998	169	6659	2708	9367
ATLANTA	26	1996	0	0	0	0
SYDNEY	27	2000	0	0	0	0

Some Facts and Comments
• No team games or team sports in Old Olympics
• Dramatisation of connection and continuity through time and space with Olympic Torch
• 20 th century Religion: Olympism
• propagation of the Political Message via Modern Games : " Peace in the World"
• contests Between individuals or contests between nations?

Some Facts & Comments

Selection of the Olympic Games Host City
Istanbul example for the 2000 Summer Games
Accommodation
Transportation
Competition Sites
Media and Telecommunications
Financial Conditions
Legal & Political Aspects

Sport in Ottomon Empire:

Because of the way of life(wars, migrations, plenty of leisure times) Turks dealt with different sports some of which were traditional.
Wrestling, riding, archery, running, walking, jumping, tepük(soccer), throwing, hunting, sword, throwing lobut, mace, gökbörü, matrak, tomak and kaymak were the popular sports in history of Turks.
Ada Meydani, Sikar Kapisi Alani, Sirk Meydani, Alay Meyadai were some of the areas and fields used for riding, throwing and wrestling.

Sports in Modern Turkey:

1920, Yususf Ziya Önis brought the Sports Law of Swiss,
Yusuf Ziya Önis, Ali Sami Yen and Burhan Felek founden Türkiye Idamn Cemiyetleri Ittifaki, which collected all clubs, in 1922.
Türkiye Idman Cemiyetleri Ittifaki constituted the first federations in Turkey: athletics, wrestling and football.
Turk Spor Kurumu was founden in 1936 by the government
Beden Terbiyesi Genel Müdürlügü was founded in 1938.
In 1936 Gençlik ve Spor Bakanligi was established and BTGM was attached to this ministry.

Below are some decisions taken to improve in Modern Turkey:

The state would give the priority to school and public sport activites,
Clubs would become places where people could participate in sport and cultural activities.
Physical Education course hours in schools would be increased,
Amateurism rather than professionals would be supported,
More importance would be given to basic sports(athletics, gymanstics),
Sport facilities would be built in provinces, and factories with more than certain number of employees,
Athletes would be provided socail security, citizens would be necouraged to participate rather than watch
To support amateur sports in order to be able to compete internationally,
Preparing master plans for every branch of sports.

Psort Committies in Modern Turkey
Sport Clubs: can be founded in regard of Dernekler Kanunu
Türkiye Milli Olimpiyat Komitesi: was founded in 1922 by Selim Sirri Tarcan and his friends with the name of Olimpiyat Komitesi.
It was under the control of Beden Terbiyesi Genel Müdürlügü untill 1962,
In 1954 it took the name Milli,
In 1973 took name Türkiye,

Turk Spor Vakfi: was founded in 1974

Amatör Spor Kulupleri Konfederasyonu: was founded in 1980 with the participation of Ankara, Trabzon and Samsun Amatör Spor Kulupleri

Yagli Wrestling: is national sport and another way of karakucak which is done with oil. There are some sources that it was brought from the middle Asia and is sport that belongs absolutely to Turks. It' s done with celebrations with drum and zurna.
Some well knowen wrestlers are:
Koca Yusuf – Kara Ahmet Kurtdereli Adalilar

Archery: Turks well known as aharpshooters and even while riding they were using archery.

Hunting: was one of the oldest sports in Turkiye history because of the way they lived. Falcons, eagles and dogs were trained for huntinh.

Riding is another sport linked with Turkish history. It was said that " Turks were born on horse".

Wrestling: was one of the oldest sports that is done by Turkish public. During the Ottomon Empire there were Wrestlers Tekkes in which wrestlers were grown up. Most of the emperor's were protecting and supporting good wrestlers within Empire. There were some kinds of wrestling:
Karakuçak Wrestling: is the national and the pure one that belongs to Turks.
Aba Wrestling: was done usually in Hatay and Antep. The name comes from the special clothe, Aba: a thick wear with half arms, no collar and it' s length is not more than the patella. It lasts 7 minutes, and it is said that the judo' s origin comes from Aba wrestling.
Tatar wrestling: in the celebrations of hidirellez and tepres were done and it was done with clothes; you just put off your shoes and your jacket and wrestling begins.
Salvar wrestling: is done in Kahramanmaras by the Turkmens, this kind were done while you were standing

Philosophical foundation:

The various philosophies of education greatly influence the goals and values of physical education. Important educational philosophies related to physical education are Idealism, Realism, Pragmatism, Naturalism, Existentialism, Humanism, and Eclecticism.

Idealism – The mind, developed through the acquisition of knowledge, is of highest importance. Values exist independently of individuals. Fitness and strength activities contribute to the development of one's personality. Horace Mann, Wadsworth, Kant, Plato, and Descartes were Idealists.

Realism – The physical world is real. A realist believes in the laws of nature, the scientific method, and mind and body harmony. Religion and philosophy co-exist. Physical fitness results in greater productivity, physical drills are important to the learning process, athletic programs lead to desired social behavior, and play and recreation help life adjustment. Aristotle was a realist.

Pragmatism – Experience is key to life. Dynamic experience shapes individuals' truth. Education is child-centered. Varied activities present experiences that are more meaningful. Activities are socializing. Problem solving accomplishes learning. John Dewy and Charles Pierce were pragmatists.

Naturalism – This philosophy is materialistic. Things that actually exist are found only within the physical realm of nature. Nature is valuable. The individual is more important than society. Self-activities accomplish learning and activities are more than physical in nature. Naturalists promote play and discourage high levels of competition. Physical education takes a holistic approach.

Existentialism – The chief concern is individualism. Existentialists do not want the individual to conform to society. They promote freedom of choice and a variety of interests. Individuals need to have their own system of values. Playing develops creativity and the discovery of the "inner self." Sartre, Soren, and Kierkegaard were Existentialists.

Humanism and Eclecticism – The modern philosophies of physical education that most schools follow today. The basis of the Humanistic philosophy is the development of individual talents

and total fulfillment that encourages total involvement and participation in one's environment. Humanists encourage self actualization and self-fulfillment.

Curriculums based on the Humanistic approach are more student-centered. The Eclectic approach combines beliefs from different philosophies and does not resemble any single philosophy. When blended skillfully, the Eclectic approach affords a sound philosophy for an individual.

The main goals and purpose of physical education is to introduce students to fitness, activity, and nutrition concepts and allow students to be physically active during the school day. Proper structure and organization allows the realization of these goals. The following is a list of physical education goals derived from different philosophies of education:

Physical/Organic Development Goal (Realism philosophy) – activities build physical power by strengthening the body's systems, resulting in the ability to sustain adaptive effort, shorten recovery time, and develop resistance to fatigue. The core values are individual health, greater activity, and better performance by an adequately developed and properly functioning body.

Motor/Neuromuscular Development Goal (Realism philosophy) – develops body awareness producing movement that is proficient, graceful, and aesthetic and uses as little energy as possible. Students develop as many skills as possible so their interests are wide and varied to allow more enjoyment and better adjustment to group situations. Varied motor development skills affect health by influencing how leisure time is spent. Values include reducing energy expenditure, building confidence, bringing recognition, enhancing physical and mental health, making participation safer, and contributing to aesthetic sense.

Cognitive Development Goal (Idealism philosophy) – deals with acquiring knowledge and ability to think and interpret knowledge. Scientific principles explain time, space, and flow of movement. Learning physical activities requires thinking and coordination of movement and mastering and adapting to one's environment. Individuals also should acquire knowledge of rules, techniques, and strategies of activities. Cognitive values include healthy attitudes and habits such as body awareness, personal hygiene, disease prevention, exercise, proper nutrition, and knowledge of health service providers.

Social/Emotional/Affective Development Goal (Existentialism philosophy) – deals with helping individuals make adjustments – personal, group, and societal – by positively influencing human behavior. Performance defines success, and success develops self-confidence. Wholesome attitudes throughout the various growth stages promote the development of an appropriate Self-Concept, which is very important. Values include meeting basic social needs (sense of belonging, recognition, self-respect, and love) that produce a socially, well-adjusted individual.

KNOWLEDGE OF THE HISTORY OF PHYSICAL EDUCATION AS A PROFESSION

Leading men and women in physical education

Physical education (P.E.) is a course of study in the curriculum of most educational systems designed to utilize both mental and physical capacities. The goal of this course of study is to instill in students the knowledge, skills, and enthusiasm required to maintain a healthy lifestyle into adulthood. Physical education is not necessarily dependent on an individual's physical capabilities. Physical education is a class that provides students with an understanding of rules, concepts, strategies, and teamwork that will benefit students throughout their lives. The term

physical education derives from the Latin word "physica," meaning physics, and "education," meaning the training of the bodily organs and powers to promote health and strength. We can trace the history of physical education back to the Greeks who held the first Olympic Games in 776 BC, which equated honor and fame with physical strength and skill. In 1420, an Italian physician named Vittorini da Feltre recognized the importance of the simultaneous development of mind and body and initiated physical education classes for children in Italy. Physical education classes did not begin in the United States until Charles Beck initiated them in 1825. Jean-Jacques Rousseau was an Enlightenment philosopher of the 18th century who made great contributions to the field of educational theory. Rousseau argued that humankind was subject to a system of justice derived from nature rather than society. He called this set of rules "natural law," and was a strong advocate of equal education for children of all social classes and physical abilities. Rousseau promoted the training of the body as well as the mind in schools and other educational systems because of the close and interconnected relationship of mental and physical processes, believing that if the body exercised, so did the mind.

Horace Mann was another figure involved in the promotion of education of the entire body in United States school systems. Mann served in both the Massachusetts House of Representatives and Senate in the 1830s, but generated the most educational reform as secretary of the Board of Education of Massachusetts in 1837. Mann's primary goal for education was to create a more equal playing field for the masses, believing that an education would provide the means to better one's lot in life. Mann argued that acquiring knowledge was the same as acquiring power, and placed equal importance on the teaching of academic subjects such as spelling and arithmetic, and the teaching of nonacademic such as music and physical education that promoted healthy living habits. Contributions of early societies to the profession Games often had a practical, educational aim like playing house. In addition, games such as gladiatorial games had political aims. Economic games included fishing and hunting. Families played board games. There were ceremonial reasons for games found in dances. Finally, ball games provided an opportunity for socialization.

Early society - The common activities performed in early societies included warlike games, chariot racing, boating and fishing, equestrian, hunting, music and dancing, boxing and wrestling, bow and arrow activities, dice, and knucklebones.

Egyptian - The common activities performed in Egypt were acrobatics, gymnastics, tug of war, hoop and kick games, ball and stick games, juggling, knife-throwing games of chance, board games, and guessing games (e.g. how many fingers are concealed).

Bronze Age - The activities performed during the Bronze Age (3000 to 1000 BC) were bullfights, dancing, boxing, hunting, archery, running, and board games.

Greek Age - The Greeks are best known for the Olympic Games, but their other contributions were the pentathlon, which included the jump, the discus, and the javelin. The Pankration was a combination of boxing and wrestling. The Greeks also played on seesaws, enjoyed swinging, hand guessing games, blind man's bluff, dice games (losers had to carry their partner's pick-a-back), and hoop and board games. There also were funeral games in The Iliad.

Romans - The Romans kept slaves and were advocates of "blood sports." Their philosophy was to die well. There were unemployment games. Roman baths were popular, as were ball games, stuffed feathers, pila trigonalis, follis, and balloon or bladder ball. The Capitoline games were held in 86 AD. These union guild athletes were paid for their activities, which included artificial

fly-fishing. The games that were popular during this period were top spinning, odds and evens, riding a long stick, knucklebones, and hide and seek.

Chinese - The Chinese contributed the following: jujitsu, fighting cocks, dog racing, and football. In Korea, Japan, and China, children played with toys and lanterns. Common activities included building snowmen, playing with dolls, making/playing with shadows, flying kites, and fighting kites. Children enjoyed ropewalker toys, windmills, turnip lanterns, ring puzzles, and playing horse. Noblemen engaged in hopping, jumping, leapfrog, jump rope, seesaw, and drawing. Major events in the history of physical education and the historical relationship of physical education to health and fitness

Egypt - Sport dancing among the nobility, physical skills among the masses, and physical training for wars. Cretans - learned to swim.

Spartan and Greeks - emphasized severe physical training and NOT competitive sport. Athenians - believed in the harmonious development of the body, mind and spirit.

Romans – The Romans established the worth of physical education. During the dark ages, children learned fitness and horsemanship. The squires learned how to become knights by boxing and fencing. Swimming was also popular. During the Renaissance, people developed the body for health reasons. The Romans combined the physical and mental aspects of exercise in their daily routines.

1349-1428 - Physical education was necessary for a person's total education and also a means of recreation. In 1546, Martin Luther saw PE as a substitute for vice and evil.

Sweden - Ling in 1839 strove to make PE a science.

Colonial period - religions denounced play. Pleasures were either banned or frowned upon. The National Period began in 1823. Games and sports were available as after school activities. There was an introduction of gymnastics and calisthenics.

Civil War (1860) - Gymnastics and non-military use of PE.. Physical Education became organized. PE became part of the school curriculum and held a respectable status among other subjects. YMCA's were founded. Gulick was the Director of PE at NYC and Dudley Allen Sargent was teaching physical education at Harvard.

Great Depression of the 1930s - Physical fitness movement. Bowling was the number one activity. Dance, gymnastics and sports were popular. The Heisman Trophy was awarded in 1935. After WWII, outdoor pools were common for the average American. Major trends since WWII influencing physical education

WWII - Selective Service examinations revealed the poor physical fitness condition of the country's youth. Thus, physical education classes focused on physical conditioning.

1942 - President Roosevelt established the Division of Physical Fitness run by John B. Kelly (who alerted Roosevelt about the poor fitness levels of youths). This division was dissolved and placed under the Federal Security Agency [FSA] with numerous organizations promoting fitness. Under the FSA, Frank Lloyd was Chief of the Physical Fitness Division, William Hughs was Chief Consultant, and Dorothy LaSalle was head of the work for women and children. After WWII ended, the eagerness for fitness waned.

1953 - Kraus-Webber tests - Of the 4,264 USA participants, 57% failed a general muscular fitness test. Only 8.7% of Europeans failed. Again, John Kelly alerted the President (Eisenhower) of the need for a fitness movement. Eisenhower ordered a special conference that was held in June 1956.

1956 - AAHPERD Fitness Conference established the President's Council on Youth Fitness and a President's Citizens Advisory Committee on the Fitness of American Youth.

Modern dance gave way to contemporary. Gymnastics had new equipment, including a higher balance beam, trampolines, and uneven parallel bars. The Swedish gymnastics boom was over, and ropes and ladders, wands, dumbbells, and Indian clubs were no longer fashionable. Core sports for boys were football, baseball, basketball, and track and field. Core sports for women were basketball and volleyball.

John Fitzgerald Kennedy changed the name of the President's Citizens Advisory Committee of Fitness of American Youth to the President's Council on Physical Fitness.

Lyndon Baines Johnson changed the name to President's Council on Physical Fitness and Sports.

1972 - passage of Title IX of the Educational Amendments Act to ensure girls and women receive the same rights as boys and men for educational programs - including physical education and athletics

1970 to Present Trends - Preventative medicine, wellness, physical fitness, and education that is more scholarly, more specialized, and more applicable to all segments of population such as the elderly, handicapped persons, and those out of organizations (Non-School sports): AAU - mid 20th century controlled amateur sports; Little League; North American Baseball Association.

International Amateur Sports: Olympic Governing Committee. Intercollegiate: National Collegiate Athletic Association (NCAA scholarship in 1954); National Association of

Intercollegiate Athletics (NAIA); National Junior College Athletic Association (NJCAA).

Interscholastic Sports: National Federation of State High School Athletic Associations.

Organizations for Girls' and Women's Sports: Athletic and Recreation Federation of College Women (ARFCW); the Women's Board of the U.S. Olympic Committee; National Section of Women's Athletics (NSWA - promoted intercollegiate sports such as US Field Hockey and Women's International Bowling and established special committees). The Women's Division of NAAF merged its interests in the NSWA of AAHPERD changing its name to National Section for Girls and Women's Sports (NSGWS). Mel Lockes, chairperson of NSGWS in 1956, was against intercollegiate athletics for women. In 1957, NSGWS changed its name to Division of Girls and Women's Sports (DGWS), still a division of AAHPERD. A lack of funds hurt DGWS.

In most educational systems, physical education (PE), also called physical training (PT) or gym, is a course in the curriculum that utilizes the learning medium of large-muscle activities in a play or movement-exploration setting. It is almost always mandatory for students in elementary schools, and often for students in middle schools and high schools. Although some people refer to Physical Education as "P.E.," the preferred titles include Lifetime Fitness, Kinesiology, and Physical Activity. The primary aim of physical education is to equip students with the knowledge, skills, capacities, values, and enthusiasm to maintain a healthy lifestyle into adulthood, regardless of their physical abilities. Activities included in the program promote

physical fitness, develop motor skills, instill knowledge and understanding of rules, concepts, and strategies, and teach students to work as part of a team or as individuals in a wide variety of play-like and competitive activities. During the past 20 years, obesity among adults has risen significantly in the United States. The latest data shows that 30 percent of U.S. adults 20 years of age and older and over 60 million people are obese. This increase applies to children as well as adults. The percentage of young people who are overweight has more than tripled since 1980. Among children and teens aged 6-19 years, 16 percent (over 9 million young people) are overweight. These increasing rates raise concerns because of their implications for the health of America. Being overweight or obese increases the risk of many diseases and health conditions, including hypertension, dyslipidemia (for example, high total cholesterol or high levels of triglycerides), type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, respiratory problems, and some cancers (endometrial, breast, and colon). Although one of the national health objectives for the year 2010 is to reduce the prevalence of obesity among adults to less than 15%, current data indicates that the situation is worsening rather than improving. Currently there are programs designed to help states prevent obesity and other chronic diseases by addressing two closely related factors - poor nutrition and inadequate physical activity. The programs support states by helping to develop and implement science-based nutrition and physical activity interventions. The program's major goals are balancing caloric intake and expenditure, increasing physical activity, improving nutrition through increased consumption of fruits and vegetables, reducing television time, and increasing breastfeeding. Currently 21 states receive funds of $400,000 to $450,000 for capacity building. Seven states receive funds of $750,000 to $1.3 million for basic implementation, bringing the total number of funded states to 28.

Current research, trends, and issues greatly affect the goals of physical education and the programs for achieving them. Issues and trends that exert a strong influence today include:

• **Inclusion** – In the past, a "mainstreaming" approach was used with children experiencing difficulties in class (school staff would occasionally periodically remove students from the class in order to provide special remedial attention). Today, the trend is to replace the mainstreaming approach with "inclusion" (where the child experiencing difficulty remains in the class, and receives remedial attention in the same setting as the rest of the children). This creates a new challenge for physical educators, because they must modify their lessons to accommodate children who may have modality problems (poor vision or hearing), or cognitive difficulties that may render visual or auditory instructions difficult to process. Sequencing of tasks and events may also pose a challenge to some children.

• **Lifelong fitness** – The trend in national standards for physical education is increasingly towards the development of an attitude among students that will promote the integration of movement activities into their routines over an entire lifespan. This requires a greater emphasis on the benefits of physical activities to health and well-being, and a greater knowledge among students of the underlying mechanisms of human movement, so they will be able to make informed choices about the movement activities that best compliment their changing set of skills, interests, and needs.

• **Increase in obesity**-related diseases among U.S. youth – We can attribute the recent sharp growth of obesity-related diseases among U.S. youth to a decrease in quality and quantity of physical activities among youth (a move "from playground to PlayStation"), and a decrease in quality of diet (more fast food, which incorporates high levels of sugar, salt and fats). Countering

this trend requires the creative application of human movement activities to stimulate interest and participation among children. Also important is the integration of more theoretical and practical knowledge of nutrition in physical education activities.

Trends towards Kinesiology in physical education

Educators encourage aspiring teachers to draw upon knowledge of the sub disciplines of kinesiology, including human anatomy, physiology, neuroscience, biochemistry, biomechanics, exercise psychology and sociology of sport, to ensure that students are able to safely and effectively participate in physical education activities that aim to develop and improve their movement skills and knowledge. Candidate teachers should be able to understand significant factors and influences in developing, analyzing, and assessing basic motor skills; know how to structure developmentally appropriate activities to promote maximum participation, inclusion, and active engagement in a wide range of movement forms, which include traditional and nontraditional games, sports, dance, and fitness activities; select and create cooperative and competitive activities that promote trust building, problem solving, collaboration, leadership, and strategic planning; design fitness programs and recommend exercises and activities based on sound physiological and fitness training principles; understand the short-term and long-term benefits of a healthy, active lifestyle; and know how to demonstrate and communicate these benefits to students.

Trend towards student-centered activities

A prime goal of physical education is to promote student development of positive personal and social behaviors, including social interaction and communication skills. To do this, candidate teachers should apply sociological, psychological, philosophical, historical, and cultural dimensions of physical education to select and develop appropriate activities and innovative approaches. Would-be teachers should be aware of the role of movement activities in helping students develop a sense of individual identity and group member identity. This physical education strategy prepares the would-be-teachers to use knowledge of historical and cultural influences on games, sports, dance, and other physical activities to enhance student awareness and appreciation of cultural and artistic diversity, the role of movement in society, and the use of physical activity for enjoyment and self-expression. The teacher should emphasize the importance of inclusion, fair play, etiquette, and respect and consideration for self and others. There are many factors that influence an individual's activity choices and careful evaluation of the appropriateness of activities in terms of participants' age and developmental levels, motor proficiency, gender, cultural background, and physical strengths and limitations is a priority. Knowledge of student development and learning curve is critical to select activities and approaches that help students experience the benefits of individual challenges and successes. To accomplish this, the principles of learning and motivation are necessary to spark students' interest in physical activity and to help motivate them to engage in lifelong physical activity.

Philosophy and Culture.

Philosophy of **culture** is a branch of **philosophy** that examines the essence and meaning of **culture**.

Religion, philosophy and culture are three "elements" of the human reality. If the first could be compared to the feet with which Man journeys towards his destiny, philosophy could represent the eyes that scrutinize that journey, and culture, the earth on which Man is walking during his concrete pilgrimage. Interculturality represents the relativity (not the relativism) of everything human, and therefore of these three notions.

The question of the nature of philosophy is already a philosophical question, and intimately connected with what Religion stands for. An intercultural approach shows that one cannot separate Philosophy from Religion, and that both are dependent on the culture which nurtures them. In order to do justice to the problem, we need to introduce the function of mythos, which complements that of logos

Philosophy is but the conscious and critical accompaniment of Man's journeying towards his destiny. This journeying is called religion in many cultures. **T**he following considerations, intending to put or discover a certain order in the world of religious-cultural galaxies, will serve as prolegomena to the unavoidable problem, today more than ever, of the meeting of religions. **I**ntercultural philosophy situates itself in *terra nullius* (no man's land), in a virgin place that no one has yet occupied; otherwise, it would no longer be intercultural but would belong to a determined culture. Interculturality is no one's land, it is utopia, situated between two (or more) cultures. It must keep silent. Now today, since it is coming to vogue, and because historical archetypes repeat themselves, I fear that we are finding ourselves, like Moses face to face with a "promised land", but without anyone having promised it to us: maybe because it does not exist – except as a utopia.

When Aaron enters it, that land ceases already to be "promised" and he appropriates it as a Hebrew land, which must "expel" its original inhabitants. When Christianity and later modern science have entered these foreign lands they equally believed that these were promised lands they believed that their duty was to "expel" the ancient errors and convert the "Natives". It is not customary for philosophy to go out and conquer or convert, but it has often been the one that has justified such intercultural skirmishes.

This somewhat polemical introduction would like to put us on our guard against the risk that the growing movement towards intercultural studies be nothing but the symptom of a culture, which, because it is in crisis, seeks to expand its "market," as does the capitalistic system with its investments in the "Third World".

Inter culturality is problematic. The very moment that I open my mouth to speak, I am obliged to use a concrete language, and thus I am completely in a particular culture: I am on a land which already belongs to someone. I am in my culture. cultivating my land, speaking my language. And if I must, moreover, be understood by my readers, I must necessarily enter a land which is common to all. While we have, in a certain sense, conquered space, since there are readers on all continents, we have been unable to dominate time, since we are necessarily contemporary. While assuming the past and taking into consideration the possible futures, we communicate in the present and cannot escape the myth of contemporaneity, no matter how polydimensional it may be. We are obliged to representation.

What therefore is the territory that belongs to a problematic intercultural philosophy? My answer would be simple if we were not dealing with philosophy. It would then be sufficient to say that it is a territory acknowledged as common, for example that of music, and then approaching it according to the distinct perspectives of our respective cultures. But this is not valid in the case of that human activity which claims to leave thematically no territory outside of its critical reflection. **W**e have already insinuated that we initially and provisionally understand by philosophy, that human activity which asks questions about the very foundations of human life under the heavens and on earth.

Culture

It is well known that the term "culture" has undergone during the 17th century in Europe, a certain mutation which has crystallized in a modern sense only since a little less than a century ago. It is a term, which remains suspect to some especially the Anglo-Saxons. Before that, culture meant something else.

To the hundreds of definitions of culture that exist today, I shall risk adding one more, which has at least the advantage of being maybe the shortest of them all, and which finally coincides with the majority of accepted descriptions. All the latter say that culture is constituted by rituals, customs, opinions, dominant ideas, ways of life which characterize a certain people at a given period. If language is an essential element, history and geography are equally cultural factors.

We summarize all that in the word *myth*, understood as symbolizing that which we believe at such a deep level that we are not even aware that we believe it: "it is useless to say it," "it is understood," "it is obvious," "we shall not pursue the investigation any further" ... We question myth only when we already partly stand outside it: this is because it is precisely the myth which offers us the basis from which the question as question makes sense. For the myth gives us the horizon of intelligibility where we must situate any idea, any conviction or any act of

consciousness so that they may be held by our mind.

Of course, there are particular myths and we must also distinguish between on the one hand, mythologies, mythologoumena, mythemes, and on the other, myth strictly speaking, which is what makes possible a narration of myths, a science about myths, more or less explicit groups of myths and the themes themselves as rational translations of what the myths themselves allow to appear as translatable. All this should not be confused with the myth strictly speaking, that horizon which gives the condition of intelligibility of everything that is subsequently said.

Each culture, in a sense, could be described as the encompassing myth of a collectivity at a certain moment in time and space; it is what renders plausible, credible, the world in which we live, where we are. This accounts for the flexibility and mobility of myth as well as the impossibility of grasping our own myth, except when we hear it from the mouth of others because having accorded the latter a certain credibility or when it has ceased to be a myth for us. Myth and faith are correlative, just as there exists a special dialectic between *mythos* and *logos* (as well as between *logos* and *mythos*).

Each culture possesses a cosmo vision and reveals the world in which we live – in which we believe to be. Each culture is a galaxy which secretes its self-understanding, and with it, the criteria of truth, goodness, and beauty of all human actions.

Cultures are not folklore, as certain mainly political milieux are in the habit of interpreting them, when they speak arrogantly and condescendingly of multicultural tolerance. Cultures are not mere specific forms of a genus called human civilization. Each culture is a genus. Cultures are not abstract species of a single sovereign genus. The sovereign genus, which would be human culture, exists only as an abstraction.

Let us say it more academically: *there are no cultural universals*, i.e. concrete meaningful contents valid for all the cultures, for mankind throughout all times. What one calls human nature is an abstraction. And every abstraction is an operation of the mind which removes (abstracts) from a greater reality (as seen by this mind) something (less universal) which it considers as important. There cannot be cultural universals, for it is culture itself which makes possible (and plausible) its own universals.

By saying that there are no cultural universals, we are using a way of thinking which is foreign to the modern "scientific" mentality, in which predominates (when not dominates) simple objectivity (and objectibility) of the real. Culture is not simply an object, since we are constitutively immersed in it as subjects. It is the one that makes it possible for us to see the

world as objects, since self-consciousness, i.e. subjectivity, essentially belongs to the human being

It ensures that all classification of cultures is nothing but a formal abstraction with a claim to objectivity to which no real culture can be reduced. Culture is the encompassing myth which makes it possible for us to believe the world in which we live. Every cosmology is the *logos* of a *cosmos* which shows itself to us as such, thanks to the *mythos* which renders it visible to us.

There are no cultural universals. But there are, for sure, *human invariants*. Every man eats, sleeps, walks, speaks, establishes relationships, thinks ... But the way according to which each one of the human invariants is lived and experienced in each culture is distinct and distinctive in each case.

It is undeniable that at certain given moments of mankind, there are myths that acquire a greater universality than others, but even in such cases, the way we usually interpret them, is distinct. "You shall not kill" can be the formulation of an abstract universal myth that we all interpret today as the condemnation of cannibalism: however, the real belief in an absolute "thou shall not kill" is far from being universal. Let us not forget that a myth is constitutively in objectifiable and that it is myth (in the sense in which we use this word) only for those who believe in it. As for the others, these are myths only in a condescending and pejorative sense of the word, as used in the modern colonial era. We see the myths of others as more or less legendary mythologies – we do not see the beam in our own eye.

It is very revealing to inquire whence and why a "mythology" was born (not the narrative, *mythos-legein*) as a rational science about others' myths (legends). All those who do not come from the South or the Center of England speak English with an accent: only the "natives", of course, speak *without* an accent ... Everything which did not fit into the mental framework of what is called the Enlightenment, which flourished precisely when the West had politically "conquered" more than three quarters of the planet, has been called primitive myth, and still nowadays, "on the way to development".

Cultural respect requires that we respect those ways of life that we disapprove, or even those that we consider as pernicious. We may be obliged to go as far as to combat these cultures, but we cannot elevate our own to the rank of universal paradigm in order to judge the other ones. **T**his is the great challenge of pluralism and one of the cements of inter culturality.

Fitness and wellness movement in the contemporary perspectives.

From primitive to present times, how fitness has evolved and come of age.

As we enter the 21st century, one of the greatest accomplishments we can celebrate is our continuous pursuit of fitness since the beginning of humankind. Throughout prehistoric time, the quest for fitness was driven by a need to survive through the arduous tasks of hunting and gathering. Today, though no longer driven by subsistence requirements, fitness remains paramount to people's health and well-being. This article will highlight the history of fitness, beginning with primitive man and leading to the foundation of the modern fitness movement.

Primitive Man (pre-10,000 BC)

Primitive, nomadic lifestyles required continual hunting and gathering of food for survival. It was quite common for tribes to embark on one- or two-day journeys to seek food and water. Following successful hunting and gathering excursions, tribes would often travel six to 20 miles to celebrate with neighboring tribes and then partake of dancing and cultural games that lasted several hours. This Paleolithic pattern of subsistence pursuit and celebration demanded a high level of fitness.

The Neolithic Agricultural Revolution (10,000-8000 BC)

This period marked the end of the primitive lifestyle and signified the dawn of civilization. This time was defined by important agricultural developments, such as the invention of the plow and domestication of plants and animals. These advancements made it possible for hunting-gathering tribes to obtain vast amounts of food while remaining in the same area, thus transforming primitive, nomadic peoples into agrarian (agriculture and farming) societies. Unfortunately, this era also coincided with the beginning of a more sedentary lifestyle, as daily physical activity decreased with fewer hardships to conquer.

The Near East (4000-250 BC)

Recognizing the importance of physical performance in the battle field, early leaders within the civilizations of Assyria, Babylonia, Egypt, Palestine, Persia and Syria encouraged fitness among their peoples. Perhaps the best example of a civilization using fitness for political and military purposes was the Persian Empire, which implemented mandatory rigid training programs to expand its domain. As this empire became more affluent, physical activity became less important. At the point the Persian Empire finally collapsed, its society could largely be characterized by an overall lack of fitness.

Ancient Chinese and Indian Civilizations (2500-250 BC)

The Chinese culture recognized that regular exercise could prevent certain diseases. In fact, the philosophical teachings of Confucius encouraged participation in physical activity. Consequently, the Chinese developed Cong Fu gymnastics to keep the body in good working condition. Cong Fu exercise programs consisted of various stances and movements that were actually modeled after the fighting styles of different animals. The ancient Chinese also engaged in other forms of physical activity, such as archery, badminton, dancing, fencing and wrestling.

In India, the pursuit of fitness was discouraged because Buddhism and Hinduism put a greater emphasis on spirituality than on physical fitness. However, Hindu priests did develop an exercise program that conformed to their religious beliefs; that program came to be known as yoga. Though its exact origin has yet to be identified, yoga has existed for at least the past 5,000 years. Translated, the word *yoga* means "union," a reference to the Hindu philosophy that strives to unite and develop the body, mind and spirit. By observing and mimicking the movement patterns of animals, the priests hoped to achieve the same balance with nature that animals seemed to possess.

Ancient Greek Civilization (2500-200 BC)

Perhaps no other civilization has held fitness in such high regard as ancient Greece. This civilization's appreciation of the body and focus on health and fitness are unparalleled in history. The Greeks believed that development of the body was equally as important as development of the mind. Facilitating the growth of fitness were Greek medical practitioners, such as Herodicus, Hippocrates and Galen.

Gymnastics, along with music, were considered vital to the education of all Greeks. In fact, a common saying in ancient Greek times was "exercise for the body and music for the soul" (Wuest & Bucher 1995). In Athens, gymnastics took place in indoor facilities called *palaestras*(the precursors to health clubs) and were supervised by a *paidotribe* (similar to today's personal fitness trainer). In Sparta, the government imposed special fitness programs for its male children to ensure they would become highly fit adult soldiers. Females were required to maintain good physical condition in order to produce healthy male offspring who could serve the state. The military-dominated culture of Sparta resulted in one of the most physically fit societies in the history of mankind.

Roman Civilization (500 BC-476 AD)

During its reign of conquest and expansion, the Roman Empire mandated that all its citizens maintain good physical condition and be prepared for military service. Everyone between the ages of 17 and 60 was eligible for the draft and trained in activities such as running, marching, jumping and discus and javelin throwing (Grant 1964)). This emphasis on physical training

resulted in a society of strong, fit people who conquered nearly all of the Western World. However, the fitness levels of the general Roman population declined as entertainment and acquisition of material wealth became higher priorities than physical condition. A lavish lifestyle and physical decay eventually took their toll, and the Roman civilization was overcome by physically superior barbarian tribes from Northern Europe.

The Dark Ages (476-1000 AD) and Middle Ages (900-1400 AD)

In much the same way as primitive man, the barbarian tribes from Northern Europe depended on physical fitness for survival. Their lifestyle consisted of hunting and gathering food and tending to cattle. Therefore, despite the cultural and intellectual setbacks that occurred with the fall of the Roman Empire, fitness actually experienced a revival during the Dark and Middle Ages.

The Renaissance (1400-1600 AD)

The Renaissance gave birth to a renewed interest in culture and a glorification of the human body. Notables such as Martin Luther and John Locke espoused the theory that high fitness levels enhanced intellectual learning. The Renaissance created an environment that readied people for the widespread development of physical education throughout Europe.

National Period in Europe (1700-1850 AD)

Continental Europe underwent numerous cultural changes following the Renaissance. Fitness remained important and physical education programs expanded within the emerging European nations. Gymnastics enjoyed immense popularity during this era, especially in Germany, Denmark, Sweden and Great Britain. Johann Guts Muths—known as the grandfather of German gymnastics—invented numerous exercise programs and the equipment on which they were performed. Exercise facilities called *Turnvereins* were built throughout Germany to house apparatuses designed for running, jumping, balancing, climbing and vaulting (Matthews 1969). In Sweden, Per Henrik Ling developed exercise programs tailored for different individuals and advocated that physical educators be schooled in science and physiology in order to understand the effect of exercise on the human body. Denmark's Frank Nachtegall created a program called "Training Teachers of Gymnastics" for future fitness instructors (Matthews 1969). Meanwhile, Archibald Maclaren was developing Great Britain's National Systems of Bodily Exercise and Training in Theory and Practice. Remarkably similar to present-day exercise recommendations, Maclaren's ideas included reducing stress through physical activity and gradually progressing activity levels (Welch 1996).

America's Colonial Period (1700-1776 AD)

The hardships of colonial life ensured that the early settlers regularly engaged in physical activity in order to survive. Colonial America remained an undeveloped country, and its people spent a

great deal of their time and energy plowing the land for crops, hunting for food and herding cattle. With this lifestyle providing plenty of physical activity, settlers had no need for organized exercise programs.

America's National Period (1776-1860 AD)

Immigrants who arrived in the United States during this period brought with them many aspects of their heritage, including German and Swedish gymnastics programs. But these programs failed to attain popularity, since America was less vulnerable to foreign invasion than European countries were, and therefore keeping fit seemed a less urgent requirement (Barrow & Brown 1988). This is not to say that the need for exercise and fitness was unappreciated. Leaders such as Benjamin Franklin recommended regular physical activity—including resistance training—for health purposes, while President Thomas Jefferson recommended more extreme measures: "Not less than two hours a day should be devoted to exercise, and the weather shall be little regarded. If the body is feeble, the mind will not be strong" (Personal Fitness Professional 2001). Individuals such as J. C. Warren and Catherine Beecher also advocated regular exercise, especially for women. And in fact, Beecher's programs, which mixed calisthenics with music, bore remarkable likeness to modern-day "aerobics." In general, however, little emphasis was placed on physical education during this period.

America Post-Civil War (1865-1900 AD)

One of the most important events with respect to modern fitness in the United States was the Industrial Revolution, which resulted in widespread technological advancements that replaced labor-intensive jobs. Rural life gave way to city life, which generally required less movement and lower levels of physical activity. (By the 1950s, with life-threatening diseases like cancer and diabetes becoming more widespread, the cost of industrialization and urbanization would become glaringly apparent.) On a more positive note, Dioclesian Lewis introduced "The New Gymnastics" following the end of the Civil War in 1865 (Rice, Hutchinson & Lee 1958). Other noteworthy advancements during this period included the development of anthropometric measurements to assess fitness progress, the launch of the first scientific studies on fitness instruction and the creation of organized fitness teaching methodologies.

America in the 20th Century

The 20th century heralded the beginning of a new era in fitness. President Theodore Roosevelt, perhaps the most physically fit president ever to occupy the Oval Office, used his power and own example to encourage U.S. citizens to be physically active. While president, he engaged in multiple forms of physical activity, including hiking, horseback riding and other outdoor endeavors.

World War I. With America's entry into World War I in 1917, hundreds of thousands of military personnel were drafted and trained for combat. After the war was fought and won, disturbing information became available regarding the readiness of our troops: One out of every three draftees had been unfit for combat, and many of those drafted were highly unfit prior to military training (Barrow & Brown 1988; Wuest & Bucher 1995). As a result of these dismal findings, the government passed legislation dictating that physical education programs within the public schools be improved. However, the heightened interest in physical education and concern over low fitness levels would prove short-lived as the United States entered the 1920s and the Depression.

The Roaring '20s and Great Depression. Throughout history, the pattern has been evident that following a war, people tend to relax more and exercise less. The decade known as the Roaring '20s was no exception and in fact earned its moniker because society lived more frivolously then than at any other time in recent history. Priorities centered on eating, drinking, partying and other forms of entertainment. With the stock market crash in 1929, fitness levels continued to decline. The gains that physical education programs had made through the passage of legislation following World War I were soon lost. Funding for these programs became limited and was eventually exhausted as the economy continued to falter. Despite this lack of interest in physical activity, it was during this period that Jack LaLanne first began to develop the programming and equipment that became the foundation of the modern fitness movement.

World War II. Like World War I, the "War That Would End All Wars" again underscored the low fitness levels among Americans serving in the military. When the war was over, the public learned that the armed forces had needed to reject nearly half of all draftees or give them noncombat positions (Rice, Hutchinson & Lee 1958). Once again, these embarrassing statistics helped focus the country's attention on the importance of fitness. Other significant developments during this time included the application of research to fitness practice, particularly by Dr. Thomas K. Cureton at the University of Illinois. Cureton also introduced fitness testing for cardiorespiratory endurance, muscular strength and flexibility and identified exercise intensity guidelines for improving fitness levels.

Early Years of the Cold War. It is fitting that during this era, when the first wave of baby boomers were born, the focus of fitness shifted from adults to children. Early in the 1950s, tests were conducted on American schoolchildren to measure muscular strength and flexibility in the trunk and leg muscles. Close to 60 percent of American children failed at least one of the tests, compared to only 9 percent of children from European countries (Kraus & Hirschland 1954). In the competitive climate that marked the Cold War, these startling statistics launched a new

campaign among U.S. political leaders to promote health and fitness among the nation's youth. President Eisenhower responded in June 1956 by holding a White House Conference, which led to the formation of the President's Council on Youth Fitness and the appointment of a Citizens' Advisory Committee on the Fitness of American Youth (Nieman 1990). During this period, educating the public about the consequences of low fitness levels became a goal of several organizations, including the American Health Association; the American Medical Association; the American Alliance for Health, Physical Education, Recreation and Dance; and the President's Council on Youth Fitness (Barrow & Brown 1988). In 1954, the American College of Sports Medicine (ACSM) was formed; throughout its history, ACSM has established position stands—based on scientific research—on various exercise-related issues.

The 1960s and Beyond. President John F. Kennedy was a major proponent of fitness and its health-related benefits for Americans of *all* ages. To reflect this concern, he broadened the scope of the President's Council on Youth Fitness by changing its name to the President's Council on Physical Fitness and appointed Bud Wilkinson as its head. Kennedy also prompted the federal government to become more involved in national fitness promotion and started pilot youth fitness programs. Another major influence during this time was Dr. Ken H. Cooper, widely recognized as the "father of the modern fitness movement." Cooper advocated a new philosophy that focused on disease prevention instead of disease treatment. Early in his career, Cooper stressed the necessity of providing epidemiological data to support the benefits of regular exercise and health. Data from thousands of individuals became the foundation for his "aerobics" concepts. Dr. Cooper's message, programs and ideas established the model from which fitness has proliferated up to modern times.

Wellness

Wellness is a modern word with ancient roots. As a modern concept, wellness has gained currency since the 1950s, 1960s and 1970s, when the writings and leadership of an informal network of physicians and thinkers in the United States largely shaped the way we conceptualize and talk about wellness today.

The origins of wellness, however, are far older – even ancient. Aspects of the wellness concept are firmly rooted in several intellectual, religious, and medical movements in the United States and Europe in the 19th century. The tenets of wellness can also be traced to the ancient civilizations of Greece, Rome and Asia, whose historical traditions have indelibly influenced the modern wellness movement.

THE EVOLUTION OF WELLNESS


Ayurveda
3000-1500 B.C.
Traditional Chinese Medicine
3000-2000 B.C.
Ancient Greek Medicine
500 B.C.
Homeopathy
1790s
Hydrotherapy
1860s
Chiropractic
1890s
The Flexner Report
1910
Organic Farming
1950s
"High Level Wellness"
1960s
First Wellness Center opens
1970s
NEWS
Wellness Goes Mainstream
1980s-2000
Wellness Goes Global
2010
Global Wellness Institute
2014

ANCIENT WELLNESS

3,000-1,500 BC: **Ayurveda** – originated as an oral tradition, later recorded in the Vedas, four sacred Hindu texts. A holistic system that strives to create harmony between body, mind and spirit, Ayurvedic regimens are tailored to each person's unique consitution (their nutritional, exercise, social interaction and hygiene needs) – with the goal of maintaining a balance that prevents illness. Yoga and meditation are critical to the tradition, and are, of course, increasingly practiced worldwide.

3,000 – 2,000 BC: **Traditional Chinese Medicine**(TCM), one of the world's oldest systems of medicine, develops. Influenced by Taoism and Buddhism, TCM applies a holistic perspective to achieving health and wellbeing, by cultivating harmony in one's life. Approaches that evolved out of TCM, such as acupuncture, herbal medicine, qi gong and tai chi, have become core, modern wellness - and even Western medical - approaches.

500 BC: Ancient Greek physician **Hippocrates** – is possibly the first physician to focus on preventing sickness instead of simply treating disease, and also argued that disease is a product of diet, lifestyle and environmental factors.

0 BC: Ancient Roman medicine emphasized disease prevention, adopting the Greek belief that illness was a product of diet and lifestyle. Ancient Rome's highly developed public health system (with its extensive system of aqueducts, sewers and public baths) helped prevent the spreading of germs and maintained a healthier population.

19TH CENTURY INTELLECTUAL & MEDICAL MOVEMENTS

In the 19th century new intellectual movements, spiritual philosophies and medical practices proliferated in the United States and Europe. A number of alternative healthcare methods that focus on self-healing, holistic approaches, and preventive care – including homeopathy, osteopathy, chiropractic, and naturopathy – were founded during this era and gained widespread popularity in both Europe and the United States. Other new philosophies were more spiritually oriented (such as the "mind-cure movements," including New Thought and Christian Science)

and were instrumental in propagating the modern idea that a primary source of physical health is one's mental and spiritual state of being.

While some of the beliefs espoused by the thinkers behind these movements have been discredited, or seem "wacky" today, these movements did popularize ideas about regaining or maintaining one's health through diet, exercise and other lifestyle measures. The philosophies embodied in these 19th century systems – that a healthy body is a product of a healthy mind and spirit – are now considered precursors to the current, thriving wellness and self-help movements. In addition, although these approaches fell out of favor with the rise of modern, evidence-based medicine in the mid-20th century, several of them are now regaining favor within the mainstream medical community and the general public.

1790s: German physician Christian Hahneman develops Homeopathy, a system that uses natural substances to promote the body's self-healing response.

1860s: German priest Sebastian Kneipp promotes his "Kneipp Cure", combining hydrotherapy with herbalism, exercise and nutrition. The New Thought movement also emerges, around Phineas Quimby's theories of mentally-aided healing.

1870s: Mary Baker Eddy founds spiritual-healing-based Christian Science. Andrew Taylor Still develops Osteopathy, a holistic approach grounded in manipulating muscles and joints.

1880s: Swiss physician Maximilian Bircher-Benner pioneers nutritional research, advocating a balanced diet of fruits and vegetables. The YMCA launches as one of the world's first wellness organizations, with its principle of developing mind, body and spirit.

1890s: Daniel David Palmer develops Chiropractic, focused on the body's structure and functioning.

1900s: John Harvey Kellogg (director of the Battle Creek, Michigan Sanitorium) espouses a healthy diet, exercise, fresh air, hydotherapy and "learning to stay well." Naturopathy, focused on the body's ability to heal itself through dietary and lifestyle change, herbs, massage and joint manipulation, also spreads to the U.S. from Europe. Austrian philosopher Rudolf Steiner develops the spiritual movement of anthrosophy and the holistic system of anthrosophical medicine. Another Austrian, F.X. Mayr, develops "Mayr Therapy", a detoxification and dietary modification program.

1910: The Carnegie Foundation's Flexner Report, a critique of North America's medical education system for lack of standards and scientific rigor, questions the validity of all forms of medicine other than biomedicine, resulting in most alternative systems (homeopathy, naturopathy, etc.) being dropped from mainstream medical education, and setting the stage for our modern disease-oriented, evidence-based medicine.

20TH CENTURY: WELLNESS SPREADS AND GET SERIOUS

Our modern use of the word "wellness" dates to the 1950s and a seminal – but little known – work by physician Halbert L. Dunn, called *High-Level Wellness* (published1961). Although Dunn's work received little attention initially, his ideas were later embraced in the 1970s by an informal network of individuals in the U.S., including Dr. John Travis, Don Ardell, Dr. Bill Hettler, and others. These "fathers of the wellness movement" created their own comprehensive models of wellness, developed new wellness assessment tools, and wrote and spoke actively on the concept. Travis, Ardell, Hettler and their associates were responsible for creating the world's first wellness center, developing the first university campus wellness center, and establishing the National Wellness Institute and National Wellness Conference in the U.S.

From **1980-2000**, the wellness movement begins to gain momentum, and get taken more seriously by the medical, academic and corporate worlds. For instance, Hettler's National Wellness Institute caught the attention of Tom Dickey and Rodney Friedman, who then established the monthly *Berkeley Wellness Letter* (1984), designed to compete with the *Harvard Medical School Health Letter*, pointedly using "wellness" in the title as contrast. This influential academic publication presented evidence-based articles on wellness approaches, while also debunking numerous health fads. More medical establishment validation: in 1991 the U.S. National Center for Complementary and Alternative Medicine (NCCAM) was established, as part of the government-funded National Institutes of Health.

The use of the term wellness varies greatly from context to context, as it is a product of a rather complex formation process, a fact that makes a single definition of the term difficult. As a concept it has some origins that can be traced back to 19thcentury American intellectual and religious movements. Some of these strands began to be associated with the term wellness beginning as early as the 1950s in the United States and were tied to ideas about active health promotion through lifestyle change. A wellness movement grew out of this definition of the

term, beginning in the 1970s. Here an informal network of individuals scattered through the U.S. was crucial to the spread of both the term and the concept. Since then, however, the meanings of the word have multiplied in a process of mutation. In some circles, for example, the term has begun to gain an esoteric tinge. In Europe it has come to be associated in particular with spas and the nonmedical treatments that they offer. It even began to be used to market products of all descriptions, many of which have only a distant relationship at best with health and well-being, a trend that has been especially observable since the 1990s. A crass, but by no means unique example of this can be found at http://www.melaleuca.com where under wellness products one can find a stain remover, a laundry detergent, a tub-and-tile cleaner and a dishwasher detergent—all marketed under the rubric of "wellness for your home." This use of wellness as a marketing tool was skewered very nicely by Michael Steck in a gloss published in Stern in 1999, unfortunately without the slightest reference to the word's original use (Steck, 1999). As a consequence of these multiple redefinitions of the word, recently some of those who endorse active lifestyle change as a means of promoting health have distanced themselves from the term altogether. The first written record of the word that the sleuths of the Oxford English Dictionary were able to find is a diary entry from 1654 by the Scot, Archibald Johnston, Lord Wariston: "I ... blessed God ... for my daughter's wealnesse" (Wellness 1971). Lord Wariston, of course, meant simply that his daughter was no longer ill. Wellness as the antonym of illness continued to be the common meaning of the term until the middle of the twentieth century, and could be encountered in any decent dictionary of the time. It must be said, however, that it was not a widely used word. Thus the common notion in the German-speaking world that the word was a "Wellness" as a holistic concept of health combining physical, mental, spiritual and social well-being dates to the 1950s, but many of the ideas behind this positive definition of health go back much further than the use of the term itself in this context. In the nineteenth century already, the United States was a hotbed of new ideas about health and how best to maintain it. Although we now look back in amusement at some of the ideas that were widely accepted then, certain aspects of nineteenth century thought still have currency. 1. Nineteenth-Century Origins Of particular importance in this connection is a movement that emphasized the relationship between spirituality and health. William James, in his landmark work, The Varieties of Religious Experience, referred to this as the "mind-cure movement" and argued that it was the "only decidedly original contribution to the systematic philosophy of life" to come out of the United States (James 1902: 94). The "mindcure movement" is more generally known as New Thought and Christian Science; these two interrelated developments were instrumental in propagating the idea that one of the primary sources of physical health is one's mental and spiritual state of being. The central idea is that divinity expresses itself in human beings and manifests itself in "health, supply, wisdom, love, life, truth, power, peace, beauty, and joy" (Declaration of

Principles, as quoted in Anderson 1995: 1). New Thought originated with a Maine clockmaker called Phineas Quimby (1802-1866). After contracting tuberculosis, he became interested in non-traditional approaches to healing and experimented with mesmerism for a time. He eventually came to the conclusion that disease was best treated, not by traditional medicine, but by alterations of attitude: The idea of curing disease without medicine is a new idea and requires quite a stretch of the imagination to believe it, and to me it was as strange as to any person; but having had twenty-five years of experience, I have found out that all our evils are the result of our education and that we imbibe ideas that contain the evils that we complain of. Ideas are like food, and every person knows that in almost everything we eat and drink, there is some idea attached. So ideas are food for the mind, and every idea has its effect on mankind. Now seeing how ideas affect the mind, I find that when I correct the ideas, I cure the sick (Quimby 1864). Quimby opened a healing practice in Portland in 1859 (he had never had any formal medical training, however) where he eventually was to "treat" over twelve thousand patients before his death in 1866 (Quimby 1888). One of Quimby's most famous patients was Mary Baker Eddy (1821-1910), the founder of Christian Science. In the first four decades of her life she suffered repeated bouts of illness until she met up with Quimby in 1862. Her health improved dramatically as a result of the auto-suggestive techniques he applied. After his death she explored his ideas further on her own, particularly in the context of her understanding of the healing ministry of Jesus. She began practicing spiritual healing herself and in 1875 published her ideas in book form, Science and Health with Key to the Scriptures. This was followed four years later by the founding of her own church, the Church of Christ, Scientist—otherwise known as Christian Science. By the time of her death in 1910, the sect had spread throughout the United States and into Europe as well. Quimby and Baker's long-term influence goes far beyond the New Thought movement itself. Ideas about the spiritual nature of disease and the power of the mind and spirit to influence the course of disease were a commonplace in American popular concepts of health. The basic assumption was that a healthy body was the product of a healthy mind and spirit. William James referred to this as the "religion of health-mindedness" (James 1902: 77-124), and it influenced such well-known health reformers as Horace Fletcher (1849-1919) and John Harvey Kellogg (1852-1943). Like Quimby, Horace Fletcher maintained that the key to health was positive thinking and the behavioural changes that such positive thinking could bring about (Whorton 1982). Fletcher is perhaps best known for his doctrine that many diseases can be avoided by proper mastication. Popularly known as Fletcherism, the idea was that if one chewed food until all trace of flavour was gone, one could vastly improve health. He proved the technique on himself. At the age of 39 he had a Body Mass Index of 34, suffered from constant fatigue, repeated bouts of influenza and dyspepsia. He tried to get life insurance and was turned down, which eventually led him to undertake a radical change in lifestyle. He tried everything

that traditional medicine had to offer without success, so then decided to consult Mother Nature herself. He assumed that Mother Nature did not err, so that if he had problems with his health it must have something to do with his own behaviour, not with some sort of faulty biological design of the human body. Sickness was the result of sin—the sin of improper behaviour on the part of the individual, whether it be nutritional sin or sin regarding some other sort of behaviour. Assuming that Mother Nature took over as soon as food was swallowed and in her infinite wisdom and benevolence she would not thereafter willingly do anything to destroy or harm her creation, he came to the conclusion that many health problems began with what one put in one's mouth and what one did with it once it got there. These were the things over which one had control, and therefore one had the individual responsibility to change what one could control so as to avoid sin. Mother nature had given humans the sense of taste in order to encourage them to consume what was good for them. The problem was that humans then ate without concentrating on the pleasure that eating provided. If one thoroughly chewed food, one could extract the greatest pleasure possible from it. (Whorton 1981: 64-68). The impact on Fletcher's health of chewing each morsel of food for a hundred bites or more was rapid and convincing. He dropped from 93 kilos to 74 kilos in a period of three months and regained his youthful vitality in the process. He accordingly once again took up the rigorous athletic activities that he had enjoyed in his youth, but which his excessive girth in middle age had made impossible. He undertook extraordinary bicycle tours and other tests of endurance into old age, feats that were well beyond the reach of most men of his age (Whorton 1981). Although the chewing dogma of Fletcherism waned in popularity by the time of its author's death, some elements of his ideas remained popular. Particularly the notion that health or ill-health was the consequence of one's own actions and that positive thinking was crucial to maintaining well-being far outlived Fletcher.

One of those who accepted Fletcher's ideas at least partially was his contemporary, John Harvey Kellogg. Kellogg was raised in a family that adhered to Seventh Day Adventism, a then new Christian sect that shared some ideas with New Thought. Seventh Day Adventists took quite literally the New Testament idea that the body is a temple of the Holy Spirit (see I Corinthians 6:19-20). Accordingly, they felt a religious obligation to lead a healthy lifestyle, for anything else would be an affront to the Holy Spirit. For them this meant avoiding excessive consumption of meat (many were vegetarian altogether), alcohol, non-medicinal drugs and tobacco. In addition they advocated physical exercise and lots of fresh air (Robinson 1965). Kellogg studied medicine at the University of Michigan medical school and at Bellevue Medical Hospital in New York, where he earned his medical degree in 1875. A year later he was appointed director of a small medical facility in Battle Creek, Michigan, which had been founded nine years earlier by

the Seventh Day Adventist Church. He soon renamed it the Battle Creek Sanitarium, and under his guidance it grew to be one of the most famous medical facilities in the United States, rivalling for a time the Mayo Clinic as the preferred medical centre for the rich and famous. Patients included Will Mayo—himself one of the founders of the Mayo Clinic, George Bernard Shaw, Henry Ford, John D. Rockefeller, Jr., Theodore Roosevelt, William Jennings Bryan, Harvey Firestone, J. C. Penney and Commodore Richard E. Byrd. Kellogg promoted the San, as his health clinic was popularly called, as a "place where people learn to stay well" (as quoted in Dr. John Harvey Kellogg 1996), and this emphasis on education as the path to health remained Kellogg's chief message. This was despite the fact that he carried on an extensive surgical practice, performing some 22,000 surgeries in the course of his life. At the San Kellogg combined aspects of lifestyle change with frequent enemas to clean out his patients' colons. The diet at the San was strictly vegetarian and focussed on lots of fresh water (he recommended 2 litres a day), fresh fruits and vegetables, grains, nuts and yogurt—a diet at once high in fibre and low in fat. In addition, a regimen of vigorous physical exercise, fresh air and strict abstinence from coffee and alcohol contributed to the health-bringing benefits of what Kellogg called "biologic living" (Kellogg 1932). Kellogg also emphasized that one's state of mind contributed greatly to health and emphasized not only clean living, but also clean thinking. While he thus gave a nod to the New Thought movement, he also propagated some rather rigid ideas about sexuality along the way—arguing that masturbation and the sexual fantasies that might accompany it, for example, contributed to a complete collapse of an individual's physical health (Kellogg 1884). Less bizarre from a current perspective was his correct evaluation of the dangers of tobacco, including its addictive effects (Kellogg 1922). In his search for ways to aid people in attaining physical wellness, he also experimented with food processing techniques, developing corn flakes (eventually marketed by his brother, W.K. Kellogg), peanut butter, granola, and soymilk (Fee/Brown 2002). Kellogg lived until 1943, and although his notions about the negative effects of masturbation and sex in general have largely died a well-deserved death, some other aspects of "biologic living," particularly the emphasis on diet and fitness, were to influence the later development of wellness in the United States. And it is not just a coincidence that he joined the American Public Health Association not long after its founding in 1872. As we shall see, there was an intimate connection between the public health community in the United States and the creation of the wellness movement.

Wellness is not an easy concept to define. The term is used in everyday language with an assumption that everyone knows what it means. Many have made attempts to define wellness. The first part of this chapter looks at wellness from a holistic perspective. It summarizes

definitions and conceptualizations of wellness within the literature of the past 30 years and looks at the major comprehensive studies to identify dimensions of wellness. It is based largely on a discussion paper produced as a background document for this Atlas. This was based on an extensive review of the wellness literature, involving online database keyword searches, screening of abstracts, and assessing the relevance of articles. Over 200 journal articles, books, and websites were examined to determine how wellness was defined, and to locate research and wellness models to support the BC Atlas of Wellness (Miller, 2007). The second section of the chapter focuses on the importance of the determinants of population health and wellness. This approach to considering factors that are important to understanding health and wellness status has become very prominent over the past 15 years or so, and is an important way of considering health and wellness from a perspective that is more community- or population-based. These two approaches to assessing the dimensions of health and wellness provide a basis for understanding the reasons for the inclusion of many of the mapped indicators that appear in the later sections of this Atlas.

Wellness from a Holistic Perspective

Holism emerged from the approach used by scientists to study complex phenomena such as organisms and ecosystems (Richards and Bergin, 1997), and from a shift in society toward a worldview that is more holistic and relational (Larson, 1999). The term wellness appeared as part of a parallel transformation in the definition of health toward a more holistic perspective that is interrelational, positive in nature, and focuses on the examination of healthy human functioning (Westgate, 1996). Previous definitions held the view that health was concerned with illness and the body was considered in terms of isolated physiological systems (McSherry and Draper, 1998). The holistic perspective completely transformed this notion of health and the wellness movement was perhaps the catalyst that began this transformation. The wellness movement began after the end of World War II largely because society's health needs changed. Advances in medicines and technology meant vaccines and antibiotics reduced the threat of infectious diseases, which until that time had been the leading cause of death (Seaward, 1997, 2002). Instead, chronic and lifestyle illnesses (e.g., heart disease, diabetes, cancer), associated with numerous stressors in life and the workplace, became the primary health concern. This introduced an expanded concept of health as encompassing all aspects of the person (mind, body, spirit) (Donatelle, Snow, and Wilcox, 1999), a concept that had been lost by western but not by indigenous societies (Elliott and Foster, 1995). This expanded view of health allowed the development of preventive health measures and a focus on optimal health as practitioners

address the whole person, and consider the causes of lifestyle illnesses rather than just their symptoms. But the language used to describe health and, similarly, wellness has become more complex and confusing. Current literature reveals additional terms corresponding and interrelating to the notion of wellness, namely well-being, quality of life, life satisfaction, happiness, and general satisfaction, the latter being a term similarly understood by many cultures and used in international studies.

Conceptualizing Wellness

Several authors have attempted to define and filter out major concepts around the meaning of wellness It has been argued that wellness is subjective, inherently has a value judgment about what it is and what it is not, and that an accurate definition and measurement of the construct is difficult (Kelly, 2000; Sarason, 2000). Therefore, authors have conceptualized wellness on a continuum and not as an end state (Clark, 1996; Dunn, 1977; Jonas, 2005; Lafferty, 1979; Lorion, 2000; Myers, Sweeney, and Witmer, 2005; Sackney, Noonan, and Miller, 2000; Sarason, 2000). Larson (1999, p. 123) states that the World Health Organization (WHO) was the first to introduce a holistic definition of health as "a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity" (1948), and many subsequent conceptualizations of wellness include this central concept. The President's Council on Physical Fitness and Sport for the US has been very involved in defining wellness, and Oliphant (2001) explains that the suggestion by WHO (1967) that health has a positive component led to the now widely used term "wellness." Dunn (1977) emphasized wellness as a positive state, one that is beyond simply non-sickness, elaborating on the WHO definition by emphasizing the varying degrees of wellness and its interrelated, ever-changing aspects.

He detailed the interconnected nature of wellness of the mind, body, and environment, which exists as a dynamic equilibrium as one tries to balance between each. Dunn (1977) conceptualized the dimensions of wellness fluctuating as people make active choices moving toward or away from their maximum potential. Egbert (1980) summarized the central areas of wellness as being a combination of having a strong sense of identity, a reality-oriented perspective, a clear purpose in life, the recognition of a unifying force in one's life, the ability to manage one's affairs creatively and maintain a hopeful view, and the capability of inspired, open relationships. WHO (1986, p. 2) further clarified the definition, noting that to reach a state of health "an individual or a group must be able to realize aspirations and satisfy needs, and to change or cope with the environment," while Bouchard and colleagues (1994, p. 23) suggest that

"positive health pertains to the capacity to enjoy life and withstand challenges." Lastly, Witmer and Sweeney (1992) defined wellness in terms of life tasks that include self-regulation, work, friendship, spirituality, and love. Many researchers have explored and defined the various components, or interrelated areas, that comprise wellness. Depken (1994) noted that most college health textbooks describe wellness as encompassing physical, psychological/emotional, social, intellectual, and spiritual dimensions. Lafferty (1979) defined wellness as a balanced amalgamation of these five factors and purposeful direction within the environment. Similarly, Greenberg (1985) defined wellness as the integration of the five dimensions and high-level wellness as the balance among them, but utilized the term mental wellness in place of intellectual wellness. Hettler (1980) included an occupational dimension and stressed wellness as the process of becoming aware of wellness and actively making choices towards optimal living.

Dimensions of Wellness

The above summary of key researchers indicates that there are several main dimensions to defining wellness: physical; psychological/emotional; social; intellectual; spiritual; occupational; and environmental. These are briefly discussed further, below.

Physical Wellness

In general, physical wellness includes physical activity, nutrition, and self-care, and involves preventative and proactive actions that take care of one's physical body. Cooper (1968, 1970, 1975, 1977) studied the relationship of exercise to health and longevity, particularly how exercise reduced the risk of heart disease. His findings revolutionized the fitness industry's understanding of health and wellness and advanced the understanding of the relationship between living habits and health.

Physical wellness encompasses maintenance of cardiovascular fitness, flexibility, and strength. Actions to improve physical wellness include maintaining a healthy diet and becoming in tune with how the body responds to various events, stress, and feelings by monitoring internal and external physical signs. This includes seeking medical care when appropriate, and taking action to prevent and avoid harmful behaviours (e.g., tobacco use and excess alcohol consumption) and detect illnesses (Hettler, 1980; Renger et al., 2000; Leafgren, 1990). Crose and co-workers (1992) included medical history and medications, body awareness, and image. Durlak (2000) and

Anspaugh and colleagues (2004) detailed physical wellness to include physical indices (muscle tone, cholesterol level, blood pressure) and behaviors (eating habits, exercise levels). Problems in physical wellness included physical injuries and disabilities, and sexually transmitted diseases.

Psychological/Emotional Wellness

Relatively few discuss psychological wellness, but there is some agreement that it is one's sense of expectation that positive outcomes result from the events and experiences of life. Emotional wellness is conceptualized as awareness and control of feelings, as well as a realistic, positive, and developmental view of the self, conflict, and life circumstances, coping with stress, and the maintenance of fulfilling relationships with others (Adams, Bezner, and Steinhardt, 1997; Leafgren, 1990). Hettler (1980) considered emotional wellness to be a continual process that included an awareness and management of feelings, and a positive view of self, the world, and relationships.

A Brief History of Wellness

Wellness is a very hot contemporary trend, not only in the United States and Canada, but worldwide. Everywhere you look you will see the evidence: wellness centers are rapidly springing up in hospitals, clinics, and fitness centers; medical spas and wellness spas are on the rise; wellness coaching is a hot new field; wellness and body-mind-spirit health is omnipresent in women's magazines; and "wellness" is now a common name for a myriad of health products, from vitamins to pet foods.

To get to the root of the matter, we need speak about recurring cultural trends going back into the nineteenth and twentieth century's in the US and over 3,000 years in the ancient civilizations of Asia and Greece that will help create a context for understanding the booming wellness trend in the twenty-first century. These ancient cultures had systems of medicine that possessed a sophisticated understanding of the principles necessary to promote and maintain human health and wellbeing. All focused on the whole person – understanding that good health encompasses a balance in body, mind and spirit. These were the original systems of holistic medicine on the planet.

An Emphasis on Lifestyle

They also placed a great emphasis on lifestyle to maintain this balance throughout one's life – diet, exercise, proper sleep, moderation in all things, ethical behavior, promotion of positive thoughts and emotions, and the importance of one's spiritual nature, through prayer and meditation. Hippocrates, the father of western medicine, was the most important figure in Greek medicine. Some of his basic principles of healthy living still resonate with us today 2,500 years later. Here are some of his best known statements:

- "Let your food be your medicine, and your medicine be your food."
- "Walking is man's best medicine."
- "Natural forces within us are the true healers of disease."
- "It is more important to know what sort of person has a disease than to know what sort of disease a person has."

If Hippocrates were with us today, he would be a very highly paid wellness consultant, and probably viewed with some suspicion by the medical establishment! India is the home of yoga and meditation as well as the system of medicine known as Ayurveda, which translates as "the science of living". The first chapter of the most important Ayurvedic text, the Charaka Samhita, from the renowned sage & physician, Charaka, is devoted to the "Quest for Longevity." Fast-forward 3,000 years and we see the immense impact of yoga and meditation on our culture in the past forty years in the areas of fitness, vegetarian diet, stress management, anti-aging and human potential. And, in more recent years, Ayurveda has been making inroads into our spas, yoga centers, and wellness centers. Ancient China was the home to an amazing system holistic medicine, based on herbal medicine, diet, acupuncture and qigong (system of internal energy management). Today we see the popularity of tai chi and qigong nationwide – you can see people practicing tai chi in the morning in the parks of almost any major city of America. The practice of Acupuncture is now licensed in 45 states. Other ancient systems of medicine also shared these values, including Unani in Persia, Native American Medicine, and shamanic medicine in numerous other cultures.

The Exercise and Wellness Program focuses on education and research to promote healthy lifestyles through physical activity and physical fitness. The program began nearly 100 years ago when ASU was named the Arizona Normal College. What began as a department named "Physical Culture," has evolved into a robust, student-centric program focused on teaching students about physical activity, fitness, health, and wellness.

1960's - The program changed its name to "Health, Physical Education, Recreation and Dance" to reflect a paradigm shift in the profession toward physical activity as a health enhancing activity, teacher education, recreation management and leadership, and dance education and performance. Development of sports skills and physical fitness needed to participate, perform and enjoy sport, dance and leisure time pursuits was a focus of the curriculum.

1982 – The university's focus began to shift toward a focus on specializations within the discipline. As such, the program evolved into a stronger health orientation, emphasizing the importance of physical activity and fitness on longevity, health promotion, and disease prevention. The program was endorsed by the American College of Sports Medicine to provide certifications in exercise testing and leadership.

2001 – The Exercise and Wellness (EXW) program divided into several separate programs allowing for focused instruction and research in specialized areas within the study of physical activity and health. The program began offering bachelor's and master's degrees in Exercise and Wellness and Health Promotion.

2006 - In collaboration with Nutrition, the program started the interdisciplinary PhD degree, Physical Activity, Nutrition, and Wellness.

2009 - EXW was integrated into the College of Nursing & Health Innovation. Organizationally, EXW operated as part of a unit with programs in Nutrition and Health Sciences in the college. Collectively, these programs continue to educate students from a variety of disciplines to promote health and prevent disease. Faculty in EXW conduct research from basic exercise science to behavior change strategies to promote health and prevent disease.

2011 – The School of Nutrition and Health Promotion was formed to include Exercise and Wellness programs. These programs continue to studying the impact of physical activity on optimal health and wellness through the life span. This encompasses promotion of active living, healthy body weight, stress management, risk factor reduction, and successful aging.

2013 – The Sun Devil Fitness Complex opened in September, 2013, allowing Exercise and Wellness students to work and study in state-of-the-art Exercise Assessment and Movement Analysis instructional laboratories.

Wellness Programs

Corporate and worksite wellness programs first appear in the literature in the early 1980s in articles discussing physical fitness efforts at work and their effects on worker performance (McKendrick, 1982; Shepard, 1981). As early as 1982, articles appearing in the Journal of

Occupational Health described how corporations could set up wellness programs to reduce health care costs, reduce illness- related absences, and attract talented employees to the company. Since then, much empirical work has been done to validate the benefits of health promotion programs. One of the main benefits of wellness programs (and one of the easiest to measure) is the reduction of absenteeism. Researchers have found a negative association between the number of days employees are absent from work (including the number of days on short-term disability) and their participation in a worksite health promotion program (Aldana, 2005; Bonner, 1990; Serxner, Gold, Anderson, & Williams, 2001). In other words, employees who participate in health promotion programs are significantly less likely to be absent from work. The cost-benefit of health promotion programs is harder to measure. However, researchers have estimated savings anywhere from more than $1 million over a two-year period to a savings of $15.60 for every dollar spent on the program (Aldana, 2005; Serxner et al., 2001). One question that researchers have yet to answer is what wellness programs will look like in the future. Stokols and his associates suggest that the field of worksite wellness may be undergoing a fundamental paradigm shift away from individually oriented programs (provided at the worksite and aimed primarily at changing employees' health behavior) and toward broader formulations emphasizing the joint impact of the physical and social environment at work, job-person fit, and work policies on employee well-being (Stokols, Pelletier, & Fielding, 1996). Despite methodological limitations such as self-reported information, lack of control groups and information from one point in time, in many available studies, the results in the literature suggest that, when properly designed, worksite health promotion programs can increase employees' health and productivity (Blanck, 1994). Goetzel and Ozminkowski describe the characteristics of effective programs, including their ability to assess the need for services, attract participants, use behavioral theory as a foundation, incorporate multiple ways to reach people, and make efforts to measure program impact. Promising practices are noted, including senior management support for and participation in these programs (Goetzel & Ozminkowski, 2008). According to Working Well: A Global Survey of Health Promotion and Workplace Wellness Strategies (Buck Consultants, 2007), 86 percent of companies in the United States support some kind of wellness program, while only about one in five employers outside of the United States provide wellness programs. The components of wellness programs vary by company and geographical region. These programs have evolved over time and now include a host of different types of activities for employees. Additionally, most companies hire outside consultants to provide this benefit or use the internal resources of their health insurance companies.

Principles of Physical Education

Biological

Physical Education with Biology Biology is fundamental to the knowledge and understanding of the body and how it works and it is an excellent subject to combine with physical education.

As a graduate you will be qualified to teach general science to Junior Certificate level and PE and biology to Leaving Certificate level. Both the PE and biology elements of this course have already obtained approval from the Teaching Council for registration as a secondary teacher.

Biological: Growth and development, Age and gender characteristics,

Child development refers to the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescence, as the individual progresses from dependency to increasing autonomy. It is a continuous process with a predictable sequence yet having a unique course for every child. It does not progress at the same rate and each stage is affected by the preceding types of development. Because these developmental changes may be strongly influenced by genetic factors and events during prenatal life, genetics and prenatal development are usually included as part of the study of child development. Related terms include developmental psychology, referring to development throughout the lifespan, and pediatrics, the branch of medicine relating to the care of children. Developmental change may occur as a result of genetically-controlled processes known as maturation, or as a result of environmental factors and learning, but most commonly involves an interaction between the two. It may also occur as a result of human nature and our ability to learn from our environment.

There are various definitions of periods in a child's development, since each period is a continuum with individual differences regarding start and ending.

Some age-related development periods and examples of defined intervals are: newborn (ages 0–4 weeks); infant (ages 4 weeks – 1 year); toddler (ages 1–3 years);preschooler (ages 4–6 years); school-aged child (ages 6–13 years); adolescent (ages 13–19). However, organizations like Zero to Three and the World Association for Infant Mental Health use the term infant as a broad category, including children from birth to age 3.

Promoting child development through parental training, among other factors, promotes excellent rates of child development. Parents play a large role in a child's life, socialization, and development. Having multiple parents can add stability to the child's life and therefore encourage healthy development. Another influential factor in a child's development is the quality of their care. Child care programs present a critical opportunity for the promotion of child development.

The optimal development of children is considered vital to society and so it is important to understand the social, cognitive, emotional, and educational development of children. Increased research and interest in this field has resulted in new theories and strategies, with specific regard to practice that promotes development within the school system. In addition there are also some theories that seek to describe a sequence of states that compose child development.

Although developmental change runs parallel with chronological age, age itself cannot cause development The basic mechanisms or causes of developmental change are genetic factors and environmental factors Genetic factors are responsible for cellular changes like overall growth, changes in proportion of body and brain parts and the maturation of aspects of function such as vision and dietary needs.

Because genes can be "turned off" and "turned on", the individual's initial genotype may change in function over time, giving rise to further developmental change. Environmental factors

affecting development may include both diet and disease exposure, as well as social, emotional, and cognitive experiences However, examination of environmental factors also shows that young human beings can survive within a fairly broad range of environmental experiences.

Rather than acting as independent mechanisms, genetic and environmental factors often interact to cause developmental change. Some aspects of child development are notable for their plasticity, or the extent to which the direction of development is guided by environmental factors as well as initiated by genetic factors. When an aspect of development is strongly affected by early experience, it is said to show a high degree of plasticity; when the genetic make-up is the primary cause of development, plasticity is said to be low. Plasticity may involve guidance by endogenous factors like hormones as well as by exogenous factors like infection.

One kind of environmental guidance of development has been described as experience-dependent plasticity, in which behavior is altered as a result of learning from the environment. Plasticity of this type can occur throughout the lifespan and may involve many kinds of behavior, including some emotional reactions. A second type of plasticity, experience-expectant plasticity, involves the strong effect of specific experiences during limited sensitive periods of development. For example, the coordinated use of the two eyes, and the experience of a single three-dimensional image rather than the two-dimensional images created by light in each eye, depend on experiences with vision during the second half of the first year of life. Experience-expectant plasticity works to fine-tune aspects of development that cannot proceed to optimum outcomes as a result of genetic factors working alone.

In addition to the existence of plasticity in some aspects of development, genetic-environmental correlations may function in several ways to determine the mature characteristics of the individual. Genetic-environmental correlations are circumstances in which genetic factors make certain experiences more likely to occur. For example, in passive genetic-environmental correlation, a child is likely to experience a particular environment because his or her parents' genetic make-up makes them likely to choose or create such an environment. In evocative genetic-environmental correlation, the child's genetically-caused characteristics cause other people to respond in certain ways, providing a different environment than might occur for a genetically-different child; for instance, a child with Down syndrome may be treated more protectively and less challengingly than a non-Down child. Finally, an active genetic-environmental correlation is one in which the child chooses experiences that in turn have their effect; for instance, a muscular, active child may choose after-school sports experiences that create increased athletic skills, but perhaps preclude music lessons. In all of these cases, it becomes difficult to know whether child characteristics were shaped by genetic factors, by experiences, or by a combination of the two.

Aspects

Physical growth

Physical growth in stature and weight occurs over the 15–20 years following birth, as the individual changes from the average weight of 3.5 kg and length of 50 cm at term birth to full adult size. As stature and weight increase, the individual's proportions also change, from the relatively large head and small torso and limbs of the neonate, to the adult's relatively small head and long torso and limbs. The child's pattern of growth is in a head-to-toe direction, or cephalocaudal, and in an inward to outward pattern (center of the body to the peripheral) called proximodistal.

Speed and pattern of development

The speed of physical growth is rapid in the months after birth, then slows, so birth weight is doubled in the first four months, tripled by age 12 months, but not quadrupled until 24 months.[Growth then proceeds at a slow rate until shortly before puberty (between about 9 and 15 years of age), when a period of rapid growth occurs. Growth is not uniform in rate and timing across all body parts. At birth, head size is already relatively near to that of an adult, but the lower parts of the body are much smaller than adult size. In the course of development, then, the head grows relatively little, and torso and limbs undergo a great deal of growth.

Mechanisms of developmental change

Genetic factors play a major role in determining the growth rate, and particularly the changes in proportion characteristic of early human development. However, genetic factors can produce the maximum growth only if environmental conditions are adequate. Poor nutrition and frequent injury and disease can reduce the individual's adult stature, but the best environment cannot cause growth to a greater stature than is determined by heredity.

Individual variation versus disease

Individual differences in height and weight during childhood are considerable. Some of these differences are due to family genetic factors, others to environmental factors, but at some points in development they may be strongly influenced by individual differences in reproductive maturation.

The American Association of Clinical Endocrinologists defines short stature as height more than 2 standard deviations below the mean for age and gender, which corresponds to the shortest 2.3% of individuals. In contrast, failure to thrive is usually defined in terms of weight, and can be evaluated either by a low weight for the child's age, or by a low rate of increase in the weight. A similar term, stunted growth, generally refers to reduced growth rate as a manifestation of malnutrition in early childhood.

Motor development

Abilities for physical movement change through childhood from the largely reflexive (unlearned, involuntary) movement patterns of the young infant to the highly skilled voluntary movements' characteristic of later childhood and adolescence**.**

Definition

"Motor learning refers to the increasing spatial and temporal accuracy of movements with practice".

Motor skills can be divided into two categories: first as basic skills necessary for everyday life and secondly, as recreational skills such as skills for employment or certain specialties based on interest.

Speed and pattern of development

The speed of motor development is rapid in early life, as many of the reflexes of the newborn alter or disappear within the first year, and slows later. Like physical growth, motor development shows predictable patterns of cephalocaudal (head to foot) and proximodistal (torso to extremities) development, with movements at the head and in the more central areas coming under control before those of the lower part of the body or the hands and feet. Types of movement develop in stage-like sequences; for example, locomotion at 6–8 months involves creeping on all fours, and then proceeds to pulling to stand, "cruising" while holding on to an object, walking while holding an adult's hand, and finally walking independently. Older children continue the sequence by walking sideways or backward, galloping, hopping, skipping with one foot and walking with the other, and finally skipping. By middle childhood and adolescence, new motor skills are acquired by instruction or observation rather than in a predictable sequence. There are Executive Functions of the brain (working memory, timing measure of inhibition and switching) which are important to motor skills. Critiques to the order of Executive Functioning leads to Motor Skills, suggesting Motor Skills can support Executive Functioning in the brain.

Mechanisms of motor development

The mechanisms involved in motor development involve some genetic components that determine the physical size of body parts at a given age, as well as aspects of muscle and bone strength. The main areas of the brain involved in motor skills are the frontal cortex, parietal cortex and basal ganglia. The dorsolateral frontal cortex is responsible for strategic processing. The parietal cortex is important in controlling perceptual-motor integration and the basal ganglia and supplementary motor cortex are responsible for motor sequences. Nutrition and exercise also determine strength and therefore the ease and accuracy with which a body part can be moved. Flexibility is also impacted by nutrition and exercise as well. It has also been shown that the frontal lobe develops posterio-anteriorally (from back to front). This is significant in motor development because the hind portion of the frontal lobe is known to control motor functions. This form of development is known as "Portional Development" and explains why motor functions develop relatively quickly during typical childhood development, while logic, which is controlled by the middle and front portions of the frontal lobe, usually will not develop until late childhood and early adolescence. Opportunities to carry out movements help establish the

abilities to flex (move toward the trunk) and extend body parts, both capacities are necessary for good motor ability. Skilled voluntary movements such as passing objects from hand to hand develop as a result of practice and learning. Mastery Climate is a suggested successful learning environment for children to promote motor skills by their own motivation. This promotes participation and active learning in children, which according to Piaget's theory of cognitive development is extremely important in early childhood rule.

Individual differences

Typical individual differences in motor ability are common and depend in part on the child's weight and build. However, after the infant period, typical individual differences are strongly affected by opportunities to practice, observe, and be instructed on specific movements. Atypical motor development such as persistent primitive reflexes beyond 4–6 months or delayed walking may be an indication of developmental delays or conditions such as autism, cerebral palsy, or down syndrome . Lower motor coordination results in difficulties with speed accuracy and trade-off in complex tasks.

Children with disabilities

Children with Down syndrome or Developmental coordination disorder are late to reach major motor skills milestones. A few examples of these milestones are sucking, grasping, rolling, sitting up and walking, talking. Children with Down syndrome sometimes have heart problems, frequent ear infections, hypotonic, or undeveloped muscle mass. This syndrome is caused by atypical chromosomal development.

Population differences

Regardless of the culture a baby is born into, they are born with a few core domains of knowledge. These principals allow him or her to make sense of their environment and learn upon previous experience by using motor skills such as grasping or crawling. There are some population differences in motor development, with girls showing some advantages in small muscle usage, including articulation of sounds with lips and tongue. Ethnic differences in reflex movements of newborn infants have been reported, suggesting that some biological factor is at work. Cultural differences may encourage learning of motor skills like using the left hand only for sanitary purposes and the right hand for all other uses, producing a population difference. Cultural factors are also seen at work in practiced voluntary movements such as the use of the foot to dribble a soccer ball or the hand to dribble a basketball.

This chapter considers the biological, psychological, and social development of traditional-aged college students— those between the ages of 18 and 24. The focus is on “normal” development during these years. Normal means the average behavioral changes, or those that the majority of college students experience. If you think of a normal distribution curve, the term includes those responses that fall within one standard deviation above or below the mean for any particular

group. Each person moves through development at his or her own pace. Maturation is influenced by individual differences that may accelerate or retard the process of development. Social factors, biological factors, and experience all play roles in the pace at which one matures.

During the years of young adulthood, men and women biologically are becoming adults. Women begin puberty somewhere between the ages of 8 and 13, and men start puberty approximately two years later—between the ages of 10 and 15. Puberty is the period when a person becomes physically mature enough to reproduce. It involves developing secondary sexual characteristics associated with gender and with hormonal changes in the body. Physically, women reach their full height at about the age of 17. Men lag behind and do not reach their full height until about the age of 21. Men and women grow differently during this period of adolescence. Men's shoulders grow wider, their chest cavity expands, and their legs and forearms grow longer. Women grow wider in the pelvic area, ostensibly to enhance their ability to bear children, and their breasts, legs, arms, and torso develop.

Uneven Growth Patterns

Growth is not necessarily proportional throughout the entire adolescent period. Different portions of the body grow at different rates; therefore, some portions of the body may reach maturity faster than others. Typically the extremities, head, hands, and feet reach maturity prior to the legs, arms, and trunk of the body. This constantly fl uctuating size leads to a decrease in motor skill coordination because individuals are learning to adapt to the changing size of their body. The description of the "awkward adolescent" is a refl ection of this uneven growth toward maturity. Recent generations have seen a trend (known as the secular trend) toward increasing size and earlier sexual maturity. Zastrow and Kirst-Ashman noted that sons are likely to be as much as one inch taller and 10 pounds heavier than their fathers, and daughters will be between one-half to one full inch taller than their mothers and approximately two pounds heavier. Menstruation is occurring in women of the current generation about 10 months earlier than it did for their mothers. The secular trend is worldwide. The reason for this trend appears to be related to better nutrition, better standards of living, and possibly the dominance of genes for tallness and rapid maturation. For the time being, this trend for increased size seems to have stabilized in the American population.1 During college, men and women approach their physical prime, reaching their full muscular development generally between the ages of 25 and 30. Top physical speed, dexterity, and overall strength generally continue to increase until about the age of 30, when a gradual decline begins. Eyesight and hearing continue to improve and are best at about the age of 20.2 For the most part, college students are in good health and generally have a high energy level. Health issues that interfere with good health are heavy drinking, drug use, and stress. The major causes of death among college students are auto accidents and suicides. In a high percentage of cases, alcohol use is involved with both causes of death.

Psychological Adaptation to Physical Development

In 1981 Blyth, Bulcroft, and Simmons conducted a study in Wisconsin on early and late maturation. They found that boys who matured early had a higher self-concept, were generally less satisfi ed with their overall physical development, tended to be more popular with girls, and participated in more school activities during high school. The same study found that early maturing girls were also less satisfi ed with their bodies than late maturers, were more often in dating relationships with boys, and had more behavior problems during middle school.3 The short-term implications of early and late maturation appear to affect self-concept and early identity formation. Early maturers generally had greater selfesteem, and some evidence indicates that early maturers may have been pushed prematurely into decisions about identity.4 These differences appear to be short lived. By the age of 30 there are generally no signifi cant differences in physical size, educational attainment, marital status, socioeconomic status, or the number of children per family unit. One benefi t to late maturing may be that late maturers are forced to deal with ambiguity in adolescence and to develop an increased tolerance for uncertainty. As a result, they tend to be somewhat more flexible.

General Characteristics of Development

1. Development is continuous.

2. Development is a process, not a state.

3. Development has order.

4. Development moves from general to specific and from simple to more complex.

5. Development has characteristics associated with specific age levels.

6. Both heredity and the environment influence development.

7. Development occurs in the context of interactions between the individual and the environment, rather than through internal processes of maturation alone.

Seven Vectors of Development

1. Developing competence

2. Managing emotions

3. Moving through autonomy toward interdependence

4. Developing mature interpersonal relationships

5. Establishing identity

6. Developing purpose

7. Developing integrity

Cognitive Development

Cognitive development is concerned with increasingly complex structures or methods of reasoning. The characteristics of cognitive developmental stages are as follows:

• The stages form an invariant sequence. Issues at lower stages must be resolved to move to a higher stage of development. Moving from a lower stage of development to a higher stage is not possible without passing through the intermediate steps.

• The stages are arranged in a hierarchy, moving from simple to complex. In the early years, cognitive issues are resolved in a simplistic form. As a person gains experience, he or she may find more complex methods of reasoning and move to a higher stage.

• The sequence of cognitive development is universal. Regardless of culture or social issues, cognitive development follows a pattern or sequence inherent to the human life cycle. Social influences can affect the rate and the likelihood of reaching high levels of cognitive reasoning, but without these social or cultural influences, the potential to achieve higher stages is the same, regardless of culture.

• Stages are qualitatively different. This means that different issues are resolved, and new forms of reasoning are confronted at each stage.

• Cognitive developmental stages are concerned with the structure or complexity of reasoning, rather than the content of the judgments made. It is not so much the decision a person makes, but the reasoning or structure of the judgment used to make the decision that reflects cognitive development. Cognitive development is the process of acquiring increasingly complex reasoning at each stage.

Cognitive development occurs through adaptation, which is a process of change to adjust or fi t into one's surrounding environment. It is composed of the processes of assimilation and accommodation. Assimilation is the process by which one acquires and integrates new information into a thought structure. As one gathers new information and experiences, these events are not only held in the conscious awareness, but also used to help shape one's thinking. As this information is accumulated, it is used as experimental information in similar problem-solving situations. Accommodation is the process of adaptation used when a person's perception and actions are changed to use a more abstract or higher level of reasoning. Assimilation involves taking in and storing information and accommodation applies this information in more complex forms of reasoning

Factors Influencing Development

Children and adolescents grow and develop at very different rates. Each individual is unique, with a distinct personality and life experience. For this reason, age is not the only sign of where a

particular child or adolescent is in terms of development. A young person's movement through the stages of childhood and adolescence are influenced by a number of factors, including:

• Physical development – genetic make-up, ethnicity, race, gender, nutrition and diet, exercise, sleep patterns, use of tobacco, alcohol or other drugs, stress and stressful life events, environmental toxins and socioeconomic status

• Cognitive development – academic setting, family environment, parent or caregiver involvement, access to early education opportunities, teacher support, personal motivation, gender and cultural or ethnic context

• Emotional development – individual temperament, parent and family relationships, support network, life experiences and transitions; media exposure and influence and a tendency toward risk-taking or delinquent behaviors

• Social development – peer influence, popularity, community and societal context Not all children and adolescents have the same characteristics as they develop, but there are some qualities that are common to most youth in a particular age group. These are mostly behaviors that have a clear biological or psychological basis. Youth in certain age groups may also exhibit other behaviors – such as obsession with body weight and resulting behaviors such as anorexia or bulimia – but these trends are the result of cultural or environmental influences and are not a part of healthy development.

The Differences between Boys and Girls

Gender does influence how young people develop, but before puberty, girls and boys are much more alike than they are different. In early childhood, girls and boys share many of the same characteristics and engage in many of the same types of activities. Throughout the first few years of elementary school, boys and girls both enjoy participating in team sports, playing organized games and working cooperatively in small groups. As they grow older, girls and boys begin to develop behaviors unique to their gender. Understanding the differences between boys and girls at each stage is key to developing effective programs. The basic developmental differences between boys and girls are as follows:

• Boys and girls mature physically at different ages. In early and middle childhood, boys typically are taller and heavier than girls of the same age. By age 10 or 11, girls have moved ahead as a result of the growth spurt associated with puberty. For boys, puberty typically begins two years later, and by age 15, they have caught up to or surpassed girls in height and weight. New studies indicate that some girls begin puberty as early as 6 or 7 years of age, creating an even wider gap between girls' and boys' maturation rates.

• Girls' and boys' rates of learning differ. Recent studies indicate that there are differences in the brain development of boys and girls, beginning as young as 5 to 7 years of age. Girls develop faster and often perform better in school than boys. Some research even suggests that girls have a better sense of hearing than boys, which could, in part, explain girls' higher academic performance.

• There are differences in how males and females process information. Research shows that males are more likely to use one side of the brain for a given task, while females use both sides of the brain. Because girls access both the thinking and feeling functions of the brain at the same time, they process information best when it is presented in a larger context. In general, boys prefer information presented in an objective and fact-oriented manner.

• Girls and boys have different standards and evaluate themselves differently. Although girls typically do better in school than boys, they are less confident and more likely to be critical of their own academic performance. Boys, on the other hand, tend to have unrealistically high views of their own academic abilities and accomplishments. Some girls may even hold back in school as they try to fit in with peers and avoid surpassing boys.

Boys and girls experience adolescence in different ways. Self-esteem falls for both boys and girls after elementary school, but the drop is more dramatic for girls. Compared with boys, adolescent girls are more anxious and stressed, experience lowered academic achievement and suffer more from depression. Girls also experience more distress over their looks and bodies, suffer from eating disorders and attempt suicide more often than boys do.

• Girls and boys have different internal motivations. Some girls may be motivated by paying attention to the needs of others, while boys might find motivation in doing what is fair or right. Girls at all ages may think more of other people when they make a decision. They also may be reluctant to judge right and wrong because they were raised to be nurturing and nonjudgmental. Often, girls place more emphasis on compassion and care, and boys are more concerned with honor and justice.

Understanding Developmental Characteristics

Club professionals need a solid understanding of the ways in which youth develop in order to successfully create a Club environment, programs and services to meet their needs. While the following list provides general characteristics of children and adolescents in four age groups, it is important to remember that the descriptions are only a guide. Each Club needs to supplement these descriptions with specific information about the young people it serves.

AGES 6 TO 9

Physical Development

• Physical growth is steady and slow, with average gains of 2½ inches and eight pounds per year. Boys are slightly ahead of girls in both weight and height.

• Large muscles are developed, allowing for ease in activities such as running or throwing.

• Growth of small muscles begins, leading to more competence in motor skills.

• Boys and girls have improved muscle strength, coordination, balance and reaction time. These abilities allow for more complicated movements such as dancing or basketball.

• Gender differences are not noticeable. For some girls, the onset of puberty may begin as early as 6 or 7 years (for African-American girls, one year earlier).

• Boys and girls enjoy practicing and mastering new physical skills.

Cognitive Development

• Boys and girls are developing self-control and are able to follow simple directions. They enjoy participating in organized activities and games with rules.

• Learning is rapid, as attention span and memory improves.

• Thinking is logical and concrete.

• Boys and girls can carry on conversations with adults, as their ability to speak and express ideas develops.

• Focus is on the present, with a growing awareness of the future.

• Youth begin to understand how to learn, as they start to see that strategies such as study and practice can improve ability and performance.

• Boys and girls are beginning to think for themselves and develop their own opinions, but continue to need help in solving problems.

• There is a strong need to demonstrate mastery of skills and be recognized for competence. Boys and girls develop a "sense of industry" and learn to cooperate with peers and adults.

Emotional Development

• Growing independence brings a desire to do more by and for them.

• Boys and girls continue to need love, attention and approval from adults, but are less willing to ask for it.

• Opinions of peers matter more than before.

• Boys and girls are very susceptible to having hurt feelings.

• There is a growing understanding of complex emotions such as confusion and excitement.

• Boys and girls are self-centered, but are beginning to think of others.

• Because the focus is on the present, instant gratification is important.

• Boys and girls may be fearful of school or of failure in school, and some may need help expressing feelings when upset or worried.

• There is a need for accomplishment, a desire to perform well and do things right.

Social Development

• Social development is increasing; boys' and girls' worlds expand to include peers, adults and activities outside the family.

• Youth begin to identify with a peer group and want to belong. Spending time with friends becomes more important.

• Developing self-esteem is important. Girls and boys earn social status through doing something well.

• Activities and play occur primarily in single-gender groups.

• Boys and girls are beginning to see other points of view and are learning to resolve conflicts with others. • Security is found in small groups and organized play.

• Boys and girls are willing to care for and play with younger children.

AGES 10 TO 12

Physical Development

• Puberty begins. Outward signs include rapid growth and bodily changes associated with sexual maturation.

• The growth spurt of puberty generally begins two years earlier in girls than boys. By age 11, most girls have caught up with or surpassed boys in weight and height.

• Physical maturation occurs faster than cognitive, emotional and social development.

• An uneven growth of bones, muscles and organs can result in an awkward appearance.

• Small muscles develop at a faster pace, leading to better motor skills.

Cognitive Development

• A wave of brain development just prior to puberty results in more reasoned perceptions and improved performance.

• Attention, memory and problem-solving abilities improve.

• Girls move ahead of boys in terms of cognitive development.

• Special athletic, artistic, academic or musical talents may emerge.

• Thinking remains fairly concrete, literal and "black or white." Boys and girls think logically, in terms of what is tangible and real rather than in terms of abstract ideas.

• Events are understood in terms of direct experience.

• Boys and girls begin to question rules and beliefs previously accepted at face value.

• Goal setting and planning begin to be important, and some girls may even start to think about college and careers.

Emotional Development

• There is greater self-consciousness. Youth respond to an "imaginary audience" in their heads, imagining the thoughts and feelings of those around them.

• Some girls and boys may become overly concerned with weight and physical appearance.

• Boys and girls basically accept parental guidance, but seek independence and begin to test adult authority.

• There continues to be a great need for emotional support from parents and other adults.

• Self-esteem is developing. Some girls may be vulnerable to losing confidence and becoming self-critical.

• Winning becomes important and competitive sports become more interesting.

• Some boys may repress their feelings and express themselves more physically.

• Adult role models and heroes are important.

• Behaviors related to the development of identity begin to be apparent.

• As puberty begins, boys and girls are less able to recognize other people's emotions.

Social Development

• Approval of and attention from peers is very important.

• Friendship continues to be important, with "best friends" and cliques developing.

• Boys and girls are beginning to learn social skills: how to enter groups, how to read social cues and how to deal with conflict in a positive manner.

• There is increased social interaction with members of the opposite sex.

• Boys and girls may begin to experiment with tobacco, alcohol or other drugs. • Boys and girls learn to better understand other people's point of view.

AGES 13 TO 15

Physical Development

• Puberty continues. Boys begin their growth spurt and by age 15, are generally taller, heavier and more muscular than girls.

• Body changes and sexual development are more evident in both boys and girls.

• Girls reach their final adult height by age 14 or 15.

• Acne and body odor are concerns for many teens.

• There is an increased need for sleep and physical rest.

• Clumsiness may occur as a result of rapid physical growth.

• Boys and girls feel a need to be competent and gain further achievement.

Cognitive Development

• Thinking becomes more abstract, with better reasoning and more intellectual curiosity. Youth are able to understand the hypothetical as well as the real.

• Boys and girls begin to understand metaphors, double meanings and humor.

• Youth begin to be aware of their own strengths and weaknesses as learners.

• Focus is on the present, but there is a beginning awareness of the future.

• Boys and girls do not always see the consequences of their actions.

• Feelings of being all-powerful, all knowing and invulnerable are common.

• Boys and girls continue to test rules and limits and begin to question social conventions.

• There is a strong sense of fairness, but a black or white, right or wrong sense of morality.

• Boys and girls are rejecting their parents' values while they develop and test their own.

• Forgetfulness is common.

• Goals for the future, including long-term goals, are beginning to be important.

Emotional Development

• Boys and girls seek independence, but continue to find security in structure and limit setting by parents and other adults. Although youth want some distance from their parents, they often want close relationships with other adults outside the family.

• Intense sensitivity and self-consciousness often results in shyness, blushing or modesty and a greater need for privacy.

• There is increased concern about physical changes and confusion over emerging sexuality. Confidence in physical appearance is related to self-esteem.

• Sexual experimentation may begin as sexual awareness increases.

• Boys and girls can become critical or argumentative.

• There is a preoccupation with conformity and a desire not to be too different from peers.

• Boys and girls seek acceptance from peers, but still look to parents for values and guidance.

• Boys and girls attempt to figure out who they are by trying on different lifestyles or mannerisms, looking for the right "fit."

• Boys and girls see themselves differently when they are with peers compared to when they are with parents and teachers.

Social Development

• Friendship and romance are increasingly important.

• Relationships deepen and become more mutual and trusting.

• Boys and girls are able to step outside themselves and see another's perspective in a relationship.

• Boys and girls are trying to establish their own identities separate from their families'.

• Peer pressure is at its peak. Boys and girls identify with the peer group. Social acceptance is important to self-esteem.

• Some dating begins (group dating, casual dating and serious dating).

• The peer group influences interests, clothing styles, music and social activities.

AGES 16 TO 18

Physical Development

• Physical changes are leveling off and ending.

• By 16, boys have stopped growing but their muscles continue to develop. Boys are considerably taller and heavier than girls.

• Many have achieved their full height and other adult physical milestones.

• Eating disorders – such as anorexia and bulimia – may occur. Girls are more likely than boys to suffer from these disorders.

• Most older teens experience strong sexual feelings.

Cognitive Development

• Thinking abilities expand. Many youth can think abstractly and hypothetically, and can envision the future and logical outcomes.

• There is greater ability to see different perspectives, resulting in more empathy and concern for others.

• Boys and girls refine and clarify their values. Many are able to see the bigger societal picture and may show an interest in justice, history, politics or patriotism.

• There is a greater capacity to set goals, think about one's role in life and consider career options.

• Boys and girls are better able to make decisions, act independently and rely on themselves.

• There is an increase in mature behaviors, especially adult-type responsibilities such as handling money, holding down a job or managing time.

• Boys and girls are able to express their thoughts and ideas more clearly. While boys experience their thoughts and feelings as separate, girls are able to process thoughts and feelings simultaneously and express them verbally.

• Because the brain continues to develop until about the age of 24, a teen's judgment and decision-making skills vary in maturity level from one time to another. Memory capabilities also vary during this time.

Emotional Development

• Independence increases. Teens gain a more realistic sense of themselves as adults.

• Although there is less confusion regarding bodily changes, teens continue to be extremely concerned with appearance.

• In the search for identity, teens explore different roles, looks, values, lifestyles or friendships. Minority youth may try to define themselves by identifying closely with their own racial or ethnic groups.

• Teens have a greater sense of self-control and the ability to compromise.

• There is a movement from self-centeredness to real sharing.

• All experiences are intense and emotional.

• Interest in ethical and religious issues grows as teens form their own standards and values.

Social Development

• Family tensions decrease as peer pressure levels off and teens establish new, adult relationships with parents.

• The peer group remains important, but one-to-one relationships are increasingly significant.

• Friendships are based more on real intimacy – sharing thoughts and feelings – and less on simply doing things together or common interests.

• Strong same-sex friendships continue to exist, but cross-gender friendships become more common.

• Teens need a balance of time spent with peers and with adults

Adolescence

Adolescence is a socially constructed concept. In pre-industrial society, children were considered adults when they reached physical maturity; however, today we have an extended time between childhood and adulthood known as adolescence. Adolescence is the period of development that

begins at puberty and ends at emerging adulthood; the typical age range is from 12 to 18 years, and this stage of development has some predictable physical milestones.

Physical Changes of Puberty

Puberty is the period of several years in which rapid physical growth and psychological changes occur, culminating in sexual maturity. The onset of puberty typically occurs at age 10 or 11 for females and at age 11 or 12 for males; females usually complete puberty by ages 15 to 17, while males usually finish around ages 16 to 17. Females tend to attain reproductive maturity about four years after the first physical changes of puberty appear. Males, however, accelerate more slowly but continue to grow for about six years after the first visible pubertal changes. While the sequence of physical changes in puberty is predictable, the onset and pace of puberty vary widely. Every person's individual timetable for puberty is different and is primarily influenced by heredity; however environmental factors—such as diet and exercise—also exert some influence.

Hormonal Changes

Puberty involves distinctive physiological changes in an individual's height, weight, body composition, and circulatory and respiratory systems. During this time, both the adrenal glands and the sex glands mature—processes known as adrenarche and gonadarche, respectively.

These changes are largely influenced by hormonal activity. Hormones play an *organizational role* (priming the body to behave in a certain way once puberty begins) and an *activation role* (triggering certain behavioral and physical changes). During puberty, the adolescent's hormonal balance shifts strongly towards an adult state; the process is triggered by the pituitary gland, which secretes a surge of hormonal agents into the blood stream and initiates a chain reaction.

Sexual Maturation

It is this stage in life in which a child develops secondary sex characteristics. *Primary sex characteristics* are organs specifically needed for reproduction, like the uterus and ovaries in females and the testes in males. *Secondary sex characteristics,* on the other hand, are physical signs of sexual maturation that do not directly involve sex organs. In females, this includes development of breasts and widening of hips, while in males it includes development of facial hair and deepening of the voice. Both sexes experience development of pubic and underarm hair, as well as increased development of sweat glands.

The male and female gonads are activated by the surge of hormones, which puts them into a state of rapid growth and development. The testes primarily release testosterone, and the ovaries release estrogen; the production of these hormones increases gradually until sexual maturation is met. Girls experience menarche, the beginning of menstrual periods, usually around 12–13 years old, and boys experience spermarche, the first ejaculation, around 13–14 years old. Facial hair in males typically appears around age 14.

Physical Growth

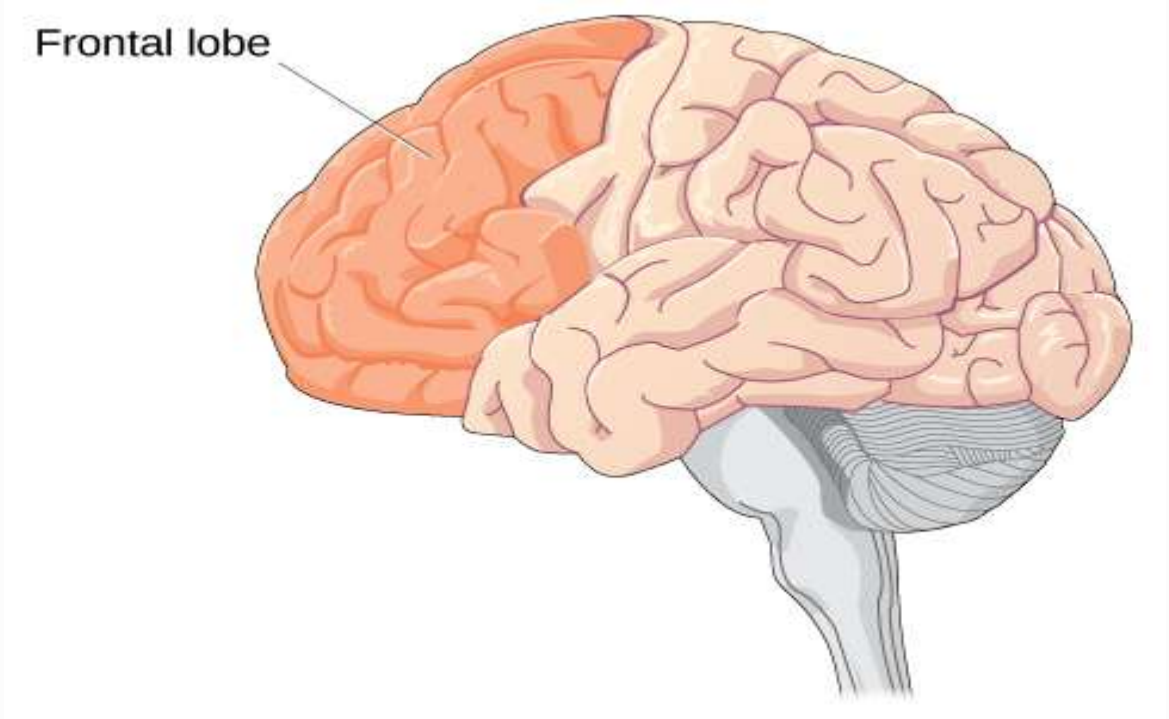
The adolescent growth spurt is a rapid increase in an individual's height and weight during puberty resulting from the simultaneous release of growth hormones, thyroid hormones, and androgens. Males experience their growth spurt about two years later than females. The

accelerated growth in different body parts happens at different times, but for all adolescents it has a fairly regular sequence. The first places to grow are the extremities (head, hands, and feet), followed by the arms and legs, and later the torso and shoulders. This non-uniform growth is one reason why an adolescent body may seem out of proportion. During puberty, bones become harder and more brittle.

Before puberty, there are nearly no differences between males and females in the distribution of fat and muscle. During puberty, males grow muscle much faster than females, and females experience a higher increase in body fat. The ratio between muscle and fat in post-pubertal males is around 1:3, while for males it is about 5:4. An adolescent's heart and lungs increase in both size and capacity during puberty; these changes contribute to increased strength and tolerance for exercise.

Brain Development

The adolescent brain also remains under development during this time. Adolescents often engage in increased risk-taking behaviors and experience heightened emotions during puberty; this may be due to the fact that the frontal lobes of their brains—which are responsible for judgment, impulse control, and planning—are still maturing until early adulthood (Casey, Tottenham, Liston, & Durston, 2005).



What Families Need to Do to Raise Sexually Healthy Children

To help six- to eight-year-old children develop a healthy sexuality, families should:

- Continue to provide information about sexuality, even if a child does not ask for it. At these ages, children may ask fewer questions, but still have lots of curiosity and need information about sexuality.
- Explain that there are many different types of families and all types have equal value and deserve respect.
- Provide basic information about important sexuality issues, such as HIV/AIDS, abortion, marriage, and sexual abuse.
- Inform children about the changes that will take place when they begin puberty. Though most six- to eight-year-old children do not experience these changes, the age at which some begin to show signs of puberty, such as pubic hair, breast buds, and hair under the arms is gradually decreasing, so that children need this information sooner.
- Recognize that everyone does not have the same sexual orientation. Acknowledge to children that many people have romantic feelings for members of the other gender, and some have these feelings for members of the same gender.

Body Types

Not every body's created equal. Before you start your training and nutrition regimen, it's a good idea to figure out your body type. Knowing which of the three basic body types you're closest to will help you better tailor your diet and exercise plan and set realistic, attainable goals that pave the way to your success.

There are three basic human body types: the endomorph, characterized by a preponderance of body fat; the mesomorph, marked by a well-developed musculature; and the ectomorph, distinguished by a lack of much fat or muscle tissue. It's all about the illusion these structures create. An ectomorph will naturally look skinner than he or she is, an endomorph will look heavier even when ripped, and a mesomorph will look well proportioned even with a little added weight. The goal: Make yourself look like a mesomorph even if you're not.

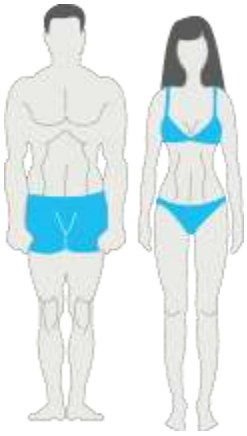
Take the test below to find out your body type, your ideal workout and supplementation plan, and to connect with inspiring members like you!

THREE BODY TYPES

ECTOMORPH

- Narrow hips and clavicles
- Small joints (wrist/ankles)
- Thin build
- Stringy muscle bellies
- Long limbs

MESOMORPH



- Wide clavicles
- Narrow waist
- Thinner joints
- Long and round muscle bellies

ENDOMORPH

- Blocky
- Thick rib cage
- Wide/thicker joints
- Hips as wide (or wider) than clavicles
- Shorter limbs

Ectomorphs stay lean despite hours in the gym, endomorphs struggle to shift their gut and mesomorphs pack on muscle with ease. Learning which one you are will help you train smarter to maximise your potential. *MF* explains how.

The idea that human body types are genetically pre-set is nothing new. Plato mentions it in*The Republic*, which was written around 380BC, and 19th-century philosopher Friedrich Nietzsche referred to the idea in *The Antichrist* years before the American psychologist William Sheldon popularised three broad 'categories' of body in the 1940s.

Since Sheldon's conclusions were published it has become widely recognised that most people have a body type that marks them as an ectomorph (lean), an endomorph (big with high body fat), or a mesomorph (muscular). Over the past decade, science has discovered more about the genetics that go into making you the shape you are – and what you can do about it. Read on to discover how you can get results, whatever your genes.

Ectomorph

The look: Lean and long

Why? Difficulty building muscle

Do…

- Train with compound moves
- Get enough protein
- Use isolation moves as ‘finishers’

Don’t…

- Overemphasise isolation moves
- Do too much cardio
- Ectomorphs have to work harder on the weights in order to gain a toned physique.

Are you the type?

You’ve got the build of a marathon runner – lean, but short on muscle. It can be hard to pack on size despite hours in the gym.

What’s going on?

It’s all to do with satellite cell-mediated myonuclear addition – or, in layman’s terms, the number of cells surrounding your muscle fibres and your ability to add more by training. In one study of 66 people, the top 17 ‘responders’ experienced a 58% gain in muscle cross-sectional area, while the bottom 17 gained nothing. Unfortunately for Ectomorphs, they tend to be the worst 'responders'.

What you might be doing wrong

Three days of strength training should be coupled with two days of low-intensity cardio. Effective abs exercises include the ‘captain’s chair’, the bicycle crunch and ab crunches while sat on an exercise ball. First, ditch the treadmill. ‘Ectomorphs often gravitate to long, slow distance work, but it’s the worst thing they can do,’ says trainer Will Purdue. And it may be tempting to pack your routine with classic bodybuilder moves such as the biceps curl, but that’s another mistake, says Purdue. ‘I often see ectomorphs focusing on isolation moves, whereas big, compound movements such as the squat will involve more muscles and give you the hormonal boost that helps build muscle. I still use isolation moves, but they’re supplementary to the main workout moves – 80% of moves should be working big muscle groups.’

What you should be doing

‘Compound movements, sets in the eight-to-12 rep range and quite a lot of volume are what you’re looking for,’ says Purdue. ‘So a system such as German Volume Training is ideal.’ Popularized by muscle expert Charles Palanquin, GVT prescribes ten sets of ten reps in key moves such as the bench or squat. And there’s no need to live in the gym to put on muscle – quite the contrary, in fact. ‘If you’re working out four, five days a week you’ll be speeding up your metabolism too much,’ says trainer Hughes. ‘I tend to limit my ectomorphs to three workouts a week, keeping the actual training time after a warm-up to 45 minutes or less.’

What to eat

In terms of nutrition, a diet that is high in calories, carbs, protein and fat will aid you in your quest for muscle gain. This should not be mistaken for eating precisely what you like. Rather, it just means you should eat more of what is healthy. Good news: you don’t have to steer clear of carbs such as oats, wholemeal bread and potatoes. Fats found in nuts, seeds and avocado will also bring about the right results. ‘Ectomorphs should respond well to carbs, which will spike blood sugar and help to drive protein to their muscles,’ says trainer Mark Hughes. ‘Stick to the complex kind, such as sweet potatoes and brown rice.’ Aim for 2g per kilo of bodyweight per day of protein minimum, but be wary of overdoing it.

What else?

‘It’s important for ectomorphs to use supplements properly,’ says Hughes. ‘I’d advise a carb/protein shake to drink before and during your workout, and either another one or a good meal afterwards.’

Money moves

The deadlift is your best friend: people with long arms should find it relatively easy, and it uses the entire body so it’ll pack on mass. Although squats and benching will do wonders for your physique, taller ectomorphs might find them difficult. ‘Your longer levers might give you trouble getting below parallel in the squat,’ says Purdue. ‘That’s when I recommend the leg press.’

Endomorph

The look: Pear-shaped

Why? High tendency to store body fat

Do…

- Train with intensity
- Watch your carb intake
- Build your shoulders

Don't…

- Do endless crunches
- Jog for hours
- Drink sports drinks

The endomorph is the hardest body type to have in terms of managing your weight and overall fitness.

Are you the type?

If you have trouble shifting weight, the chances are you're an endomorph, characterised by a relatively high amount of stored fat, a wide waist and a large bone structure.

What's going on?

The good news is that, evolutionarily speaking, you're a badass: when food was scarce, natural selection favoured humans with fat-storing metabolisms. The bad news is that, now sofas and milkshakes are readily available, those genes are scuppering you. Some experts suggest heredity might account for as much as 70% of your body mass index (BMI).

What you might be doing wrong

First, the good bit: there's no point in spending hours plodding away on a treadmill. 'The first thing I tell people trying to lose weight is to ditch the long, slow, steady-state cardiovascular work,' says Purdue. 'Then I get them doing more interval-based conditioning to strip away fat. Sprints and box jumps are great, but if you're heavy to the point of being worried about your joints, then moves like the sled push are slower but just as intense.' And if you're doing hundreds of crunches to try and shift your gut, ditch them now. 'Spot-reducing fat just doesn't work,' says Hughes. 'You need to lose it from everywhere to see results around your waistline.'

What you should be doing

While much of the endomorph's focus should be on shedding fat through aerobic exercise, here at MF we're of the opinion that weight-training is best because it carries on burning calories long after your final set. What's more, the calories you ingest during the recovery period will help your muscles grow rather than fuelling your gut. Therefore, we recommend doing four days a week of hypertrophy training (heavy weight, low reps) alongside your cardio. 'Combine hypertrophy work – basically, muscle-building – with conditioning to strip away unwanted body fat,' says Purdue. 'A four-day split might go something like: Monday, upper-body hypertrophy; Tuesday, lower-body conditioning such as sprints or sleds; Thursday lower-body hypertrophy; and a Friday "repetition" day on the upper body, when you'll do lots of reps at relatively low weights.'

What to eat

From a nutrition perspective, a low-carb diet that still includes oats and brown rice should be complimented by a high protein and fibre intake. Nutrients such as green tea and spinach will help with the fat burning process. You'll have to watch what you eat more strictly than people with other body shapes. 'Get your carbs from vegetables,' says Purdue, 'and steer clear of white bread and rice.'

What else?

'There's evidence that extra weight around the midsection indicates high stress levels or a low ability to handle stress,' says Purdue. 'Try to minimize the effects of the stress hormone cortical by getting plenty of sleep and avoiding overtraining.' And avoid sports drinks. 'They're full of carbs,' says Purdue, 'and they'll spike your blood sugar through the roof.' And, of course, steer clear of the booze.

Money moves

'Get used to using your body,' says Purdue. 'Work on bodyweight moves such as the press-up or chin-up, and moves that force you to use good technique such as the Turkish get-up.'

Mesomorph

The look: Well-built

Why? High metabolism, responsive muscle cells

Do…

- Train like an athlete
- Time your workouts
- Set personal bests

Don't…

- Take your body for granted
- Eat whatever you like

Mesomorphs tend to take their naturally athletic builds for granted, which can result in diluted workouts and poor diets. Keeping in peak physical condition is often tempered by a scattered approach to eating and training.

Are you the type?

If you are, you'll know it from the jealous looks. Mesomorphs look well built without setting foot in a gym, and pack on muscle the instant they pick up a dumbbell. If this sounds like you, you've hit the genetic jackpot – but you can make the most of your DNA with some tactical workout tricks.

What's going on?

The same research that's so unflattering to ectomorphs offers plenty of positives for mesomorphs. While the worst 'responders' in the study mentioned above saw no change in their regulation of myogenin – a key gene responsible for muscle growth – the mesomorphs on the same programme saw theirs spike by up to 65%.

What you might be doing wrong

'Mesomorphs often won't train as hard as they can,' says Hughes. 'I usually give them timed workouts, to give them goals to aim for and raise their workout intensity.'

What you should be doing

'I get mesomorphs to train athletically,' says Purdue. 'So I might do sprints, box and vertical jumps or other plyometrics. They respond well to low reps and power moves. Alternatively, interval sprints will pump up their metabolism and strip away fat.'

What to eat

Although the usual caveats apply, the good news is that your body will respond well to whatever healthy food you put into it. 'You can eat a moderate amount of carbs,' says Hughes. 'And err on the side of more when it comes to protein.' A basic guideline for mesomorphs to follow would be to consume meals that are 40% complex carbohydrates, 30% lean protein and 30% healthy fats. So, for example, a plate that contained vegetables such as cauliflower and broccoli, grilled chicken and olive oil on wholegrain bread would represent a staple dish for this body type.

What else?

'Mesomorphs respond well to creatine,' says Hughes. 'It'll aid their recovery from athletic workouts and help them work out harder.' You should also factor in recovery days. 'Although the explosive nature of athletic workouts minimises the eccentric [lowering] portion of your moves, which helps stave off muscle soreness, some light movements on your rest days will help get the blood flowing and keep you fresh.'

Money moves

'You'll respond well to power moves,' says Purdue. 'Try pairing a strength move with a power move that works the same muscles. For example, superset five reps on the dead lift with five on the power clean.'

When I first got into the muscle building scene I was overwhelmed by the amount of different training programs, bodybuilding supplements, diets, articles and information there was out there. There were so many conflicting diets and training programs available and I had no idea what I "should" be doing. The result of this was about 6 months in the gym with little gains and almost no motivation to workout anymore.

I was at a complete loss and about to throw in the towel and give up. Then a guy in the gym gave me a magazine and told me to read the article in there about body types. So I did and it opened my eyes up to the reason why I wasn't making any gains in the gym.

I am a true ectomorph (classic hardgainer) and my bodyweight was 60.2kg (132.5lbs) when I first walked into a gym. I had no idea about body types back then. I assumed (like most beginners do) that the more I worked out the bigger I would get. Thinking that "more was better" I started following a program designed for an elite bodybuilder. This resulted in gains of about 1.7kg in 6 months.

After reading the body type article in that magazine I started to understand more about how my body type worked, my metabolism, and gaining weight. Being an ectomorph I need to focus on calorie intake, long rest periods, and minimum cardio. It was only then I started making some real gains and I've never looked back.

So it's important to be able to identify and understand your body type. Different body types require different training methods and diet plans. So listed below are the 3 male body types: ectomorph, mesomorph and endomorph, along with their characteristics.

ECTOMORPH

An ectomorph is a typical skinny guy. Ecto's have a light build with small joints and lean muscle. Usually ectomorph's have long thin limbs with stringy muscles. Shoulders tend to be thin with little width.

Ectomorph

TYPICAL TRAITS OF AN ECTOMORPH

- Small “delicate” frame and bone structure
- Classic “hardgainer”
- Flat chest
- Small shoulders
- Thin
- Lean muscle mass
- Finds it hard to gain weight
- Fast metabolism

Ectomorphs find it very hard to gain weight. They have a fast metabolism which burns up calories very quickly. Ecto’s need a huge amount of calories in order to gain weight. Workouts should be short and intense focusing on big muscle groups. Supplements are definitely recommended. Ectomorphs should eat before bed to prevent muscle catabolism during the night. Generally, ectomorphs can lose fat very easily which makes cutting back to lean muscle easier for them.

MESOMORPH

A mesomorph has a large bone structure, large muscles and a naturally athletic physique. Mesomorphs are the best body type for bodybuilding. They find it quite easy to gain and lose weight. They are naturally strong which is the perfect platform for building muscle.

Mesomorph

TYPICAL TRAITS ON A MESOMORPH:

- Athletic
- Generally hard body
- Well defined muscles
- Rectangular shaped body
- Strong
- Gains muscle easily
- Gains fat more easily than ectomorphs

The mesomorph body type responds the best to weight training. Gains are usually seen very quickly, especially for beginners. The downside to mesomorphs is they gain fat more easily than ectomorphs. This means they must watch their calorie intake. Usually a combination of weight training and cardio works best for mesomorphs.

ENDOMORPH

The endomorph body type is solid and generally soft. Endomorphs gain fat very easily. Endo's are usually of a shorter build with thick arms and legs. Muscles are strong, especially the upper legs. Endomorphs find they are naturally strong in leg exercises like the squat.

Endomorph

TYPICAL TRAITS OF AN ENDOMORPH:

- Soft and round body
- Gains muscle and fat very easily
- Is generally short
- "Stocky" build
- Round physique
- Finds it hard to lose fat
- Slow metabolism
- Muscles not so well defined

When it comes to training endomorphs find it very easy to gain weight. Unfortunately, a large portion of this weight is fat not muscle. To keep fat gain to a minimum, endomorphs must

always train cardio as well as weights. Usually supplements may not be needed as long as the person has a high protein intake in their diet.

A COMBINATION OF BODY TYPES

These body types aren't set in stone. In fact, most guys have a combination of two body types. These combinations are either ectomorph/mesomorph or mesomorph/endomorph. It is not uncommon to find a pure mesomorph that gains weight like an endomorph for example.

So which body type are you?

Given the information above you should be able to identify your body type. You may also want to optimize your diet and training to suit your body type.

One final point I want to mention is that no matter what your body type you can build a big, ripped, muscular physique. Even the skinniest of guys can bulk up. Yes, it's harder but if you're willing to put in the hard work it can be done. I have about the skinniest natural build possible and at the time of writing this article I have gained about 30kg (66lbs) of lean muscle mass.

Psychological,

Learning

The activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something: the activity of someone who learns

Knowledge or skill gained from learning

1 the act or experience of one that learns

2knowledge or skill acquired by instruction or study

3modification of a behavioral tendency by experience (as exposure to conditioning)

Psychology. the modification of behavior through practice, training, or experience.

Definition:

Learning is often defined as a relatively lasting change in behavior that is the result of experience. Learning became a major focus of study in psychology during the early part of the twentieth century as behaviorism rose to become a major school of thought. Today, learning remains an important concept in numerous areas of psychology, including cognitive, educational, social, and developmental psychology.

Learning is the lifelong process of transforming information and experience into knowledge, skills, behaviors, and attitudes.

- Learning is not dependent upon classes and courses – though these can be very useful tools
- It does not require a degree, certificate, or grade to prove its worth – though clearly these have social value that most people would be unwise to ignore
- It does require – in varying degrees, and in varying times and circumstances – activities like practice, reflection, interaction with the environment (in the broadest sense), and social interaction. The latter, in particular, can be greatly facilitated by the range of new technologies for communication and collaboration now available to us.
- It does not always – probably not even most of the time – happen consciously – though I think that those who strive for a more conscious approach to learning throughout their lives – whether at work or otherwise – tend to be more successful in pretty much whatever way they define success.

The **psychology** of **learning** is a theoretical science. **Learning** is a process that depends on experience and leads to long-term changes in behavior potential. Behavior potential designates the possible behavior of an individual, not actual behavior.

The field of behavioral **psychology** focuses largely on measurable behaviors that are learned, rather than trying to understand internal states such as emotions and attitudes. **Types of learning** include classical and operant conditioning (both **forms** of associative **learning**) as well as observational **learning**.

Learning: Meaning, Nature, Types and Theories of Learning

Meaning and Nature:

Learning is a key process in human behavior. All living is learning. If we compare the simple, crude ways in which a child feels and behaves, with the complex modes of adult behavior, his skills, habits, thought, sentiments and the like- we will know what difference learning has made to the individual.

The individual is constantly interacting with and influenced by the environment. This experience makes him to change or modify his behavior in order to deal effectively with it. Therefore, learning is a change in behavior, influenced by previous behavior. As stated above the skills, knowledge, habits, attitudes, interests and other personality characteristics are all the result of learning.

Learning is defined as "any relatively permanent change in behavior that occurs as a result of practice and experience". This definition has three important elements.

a. Learning is a change in behavior—better or worse.

b. It is a change that takes place through practice or experience, but changes due to growth or maturation are not learning.

c. This change in behavior must be relatively permanent, and it must last a fairly long time.

All learning involves activities. These activities involve either physical or mental activities. They may be simple mental activities or complex, involving various muscles, bones, etc. So also the mental activities may be very simple involving one or two activities of mind or complex which involve higher mental activities.

What activities are learned by the individual refer to types of learning. For example, habits, skills, facts, etc. There are different types of learning. Some of the important and common learning activities are explained here.

Types of Learning:

1. Motor learning:

Most of our activities in our day-to-days life refer to motor activities. The individual has to learn them in order to maintain his regular life, for example walking, running, skating, driving, climbing, etc. All these activities involve the muscular coordination.

2. Verbal learning:

This type of learning involves the language we speak, the communication devices we use. Signs, pictures, symbols, words, figures, sounds, etc, are the tools used in such activities. We use words for communication.

3. Concept learning:

It is the form of learning which requires higher order mental processes like thinking, reasoning, intelligence, etc. we learn different concepts from childhood. For example, when we see a dog and attach the term 'dog', we learn that the word dog refers to a particular animal. Concept learning involves two processes, viz. abstraction and generalization. This learning is very useful in recognizing, identifying things.

4. Discrimination learning:

Learning to differentiate between stimuli and showing an appropriate response to these stimuli is called discrimination learning. Example, sound horns of different vehicles like bus, car, ambulance, etc.

5. Learning of principles:

Individuals learn certain principles related to science, mathematics, grammar, etc. in order to manage their work effectively. These principles always show the relationship between two or more concepts. Example: formulae, laws, associations, correlations, etc.

6. Problem solving:

This is a higher order learning process. This learning requires the use of cognitive abilities-such as thinking, reasoning, observation, imagination, generalization, etc. This is very useful to overcome difficult problems encountered by the people.

7. Attitude learning:

Attitude is a predisposition which determines and directs our behavior. We develop different attitudes from our childhood about the people, objects and everything we know. Our behavior may be positive or negative depending upon our attitudes. Example: attitudes of nurse towards her profession, patients, etc.

Theories of Learning:

Psychologists have tried to explain how people learn and why they learn. They have conducted many experiments on animals and children and come to certain definite conclusions which explain the modes of learning.

These are called as theories of learning. In many books, these explanations are treated as kinds of learning. In a sense it is true. But the term learning is very comprehensive. It covers a wide range of activities which cannot be explained within a limited framework. There are many theories explaining modes of learning. Important among them are:

Trial and Error Learning Theory:

This theory was developed by an American psychologist EL Thorndike (1874-1949). He argues that learning takes place through trial and error method. According to him learning is a gradual process where the individual will make many attempts to learn. The essence of this theory is-as the trials increase, the errors decrease.

This is possible because of association formed between sense impressions and impulses to action. Such an association comes to be known as a ‘bond’ or a ‘connection, because it is these bonds or connections which become strengthened or weakened in making and breaking of habits.

According to this theory when an individual is placed in a new situation, he makes a number of random movements. Among them, those which are unsuccessful are eliminated and the successful ones are fixed.

These random movements are not eliminated at once. In the first attempt their number is very large, in the second attempt the number of errors diminishes and the range of activity becomes narrower. Gradually the individual learns to avoid unnecessary movements and reaches the goal. Improvement takes place through repetition.

Thorndike studies the character of trial and error learning in a number of experiments on cats-using a box which he called 'puzzle box'. In one of the experiments a hungry cat was placed in the box and the door was closed which could be opened by pressing a Latch. A fish was placed outside the box in a plate.

The cat could see this fish. The cat was given 100 trials-ten in the morning and ten in each afternoon for five days. The cat was fed at the end of each experimental period and then was given nothing more to eat until after the next session. If, succeeded in opening the door in any trial by chance, he went to eat food (fish). A complete record was made of the cat's behaviour during each trial.

In the beginning the cat made a number of random movements like biting, clawing, dashing, etc. gradually in subsequent trials the cat reduced the incorrect responses (errors), as it was in a position to manipulate the latch as soon as it was put in the box.

This experiment revealed that the random movements were decreased gradually, that is-as the trials increased the errors decreased. As the trials increased the solution to open the door (pressing the latch) was discovered and at the end, the cat could open the door with zero error. The time taken in each trial was eventually reduced.

Thorndike conducted many experiments with maze and puzzle box learning in which cats and rats were used. He has demonstrated that through numerous trials the animal learns much and gradually improves his effort.

We all learn many skills like swimming, cycling, riding, etc., through this method. Children learn to sit, stand, walk, and run by this method only. However, this method involves considerable waste of time and effort.

Learning by Conditioning:

In literal sense, conditioning means 'getting used' to, or 'adjusted 'to a new situation, or a stimulus. It is a process of substituting the original stimulus by a new one and connecting the response with it. There are two types of conditioning theories:

1. Classical conditioning:

This method of conditioning got its name from the fact that, it is a kind of learning situation that existed in the early classical experiments of Ivan P Pavlov (1849-1936), Russian physiologist who was awarded Nobel Prize, in 1904 for his experiments.

Pavlov designed an apparatus to measure the quantity of saliva produced in response to food (meat power). At the beginning of his experiment Pavlov noted that no saliva flowed when he rang the bell. He then trained the dog by sounding the bell, and shortly afterwards presenting food.

After the sound of the bell had been paired with food a few times, he tested the effects of the training by measuring the amount of saliva that flowed when he rang the bell and did not present food. He found that some saliva was produced in response to the sound of the bell alone. He then resumed the training-paired presentation of bell and food a few times and then tested again with the bell alone.

As the training continued, the amount of saliva on tests with the bell alone increased. Thus, after training the dog's mouth watered-salivated- whenever the bell was sounded. This is what was learned; it is the conditioned response.

This theory states that CS (bell) becomes a substitute after pairing with UCS (food) and acquires the capacity to elicit a response. It is because the association (conditioning) is formed between CS and UCS. This may be symbolically presented as follows:

UCS<————————————à UCR

(Food) (Saliva)

↓ (Conditioning)

CS<————————————-à CR

(Bell) (Saliva)

Sub-principles of Classical Conditioning:

There are certain sub-principles which explain the different phenomena of this experiment.

a. Extinction and spontaneous recovery:

Extinction means cessation of a response. The strength of the CS gradually decreases when it is presented alone and not followed by UCS for a number of trails. This process is called 'extinction'. In this experiment when only bell is presented without food for a number of trials, the dog stopped salivation gradually.

But when the CS (bell) was paired again with UCS (food) for some trials, the CR (salivation) recovered. This is known as 'spontaneous recovery'. In spontaneous recovery the dog required less number of trials than the first time, because the association between CS and UCS still existed in the brain of the animal.

b. Stimulus generalization:

A tendency to respond to a stimulus which is similar to original one is called stimulus generalization, the greater the similarity, the more the generalization. In this experiment, the dog started salivating even for the sound of a buzzer which was similar to bell.

c. Stimulus discrimination:

When there is much difference between two stimuli, the animal can discriminate between the two. For example, if the dog is conditioned to salivate at the signal of red light, it will not salivate when green light is presented.

d. Higher order conditioning:

If a 'light' is presented followed by bell and then by food for a number of trials, the dog will start salivating to light itself. This phenomenon is called higher order condition.

All these principles are very useful in behavior therapy. Conditioning is not confined only to the laboratory.

In our day-to- day's life we come across many instances of such learning. For example, a small child who does not know, touches a burning candle, it gives him a painful experience and withdraws his hand. Later this experience will make him withdraw from burning objects and avoid them all together.

Conditioning is used as psychotherapeutic technique very effectively in the treatment of abnormal behaviors such as phobias, alcoholism, enuresis, etc. These are called behavior modification techniques. Watson and others have conducted many experiments to prove the usefulness of this method.

2. Operant Conditioning:

This method of conditioning was developed by an American psychologist BF Skinner. This theory is also known as 'Instrumental conditioning', because the animals use certain operations or actions as instruments to find solution.

Skinner conducted his famous experiment by placing a hungry rat in a box called after his name 'Skinner box'. This box was containing a lever and a food tray in a corner of the box. It was so arranged, that the animal was free to move inside the box, but the pressing of the lever would get the animal a pallet of food in the tray as reinforcement.

Arrangement was also made to record the number of pressings of the lever by a mechanical device. It was found in the beginning that the rat pressed the lever occasionally and used to get food as reinforcement for each pressing.

Gradually, as the animal learnt the pressing of lever would give some food, it repeated the responses very rapidly. This rapid increase in pressing the lever is the indication of the animal conditioned to get food.

In day-to-day's life also, much learning takes place in animals as well as in human beings by this method. The reinforcement will be the motivating factor. It will make the organism to repeat its action.

It is on the basis of these experiments, Skinner made his famous statement "Rewarded behavior is repeated". Instrumental conditioning involves more activity by the learner than classical conditioning. Skinner conducted his experiments on different animals like pigeons, rats, etc.

Reinforcement which is the most important aspect of this experiment is divided into two types: positive reinforcement is used in reward training. Negative reinforcement-like punishment is used to stop undesired responses or behaviors. Operant conditioning is useful in shaping undesirable behavior and also in modification of behavior.

This is also useful in training of mentally retarded children to learn dressing, eating and toilet training skills, treatment of phobias, drug and alcohol addictions, and psychotherapy and to teach needed behavior in children. Further, these experiments have proved that intermittent reinforcement yields better results than continuous reinforcement.

Learning by Insight:

Many times learning proceeds by the more efficient process of trying those methods which are seem to have a relation to solution. This is possible by understanding or perception of the situation.

Learning by perceiving the relationship in the scene and understanding the situation is insightful learning. This theory was developed by a psychologist known as Wolf gang Kohler, who belonged to Gestalt school of psychology.

According to Gestalt theory—perception of a situation as a 'whole' gives better understanding than sum total of its parts. That is, the situation viewed as a whole will definitely look different from that, viewed through its parts.

Kohler conducted his most famous experiments on chimpanzee- called Sultan. In the experiment, Sultan was put in a cage and a banana was placed at some distance outside the cage. Then the chimpanzee was given two sticks, so constructed that one stick could be fitted into another and make the stick longer.

The hungry Sultan first attempted with its hands to get the banana. Then he took one of the sticks and tried to pull the banana nearer, then tried with other stick, but failed to reach it. By this effort, the chimpanzee became tired and left the attempts to reach banana and started playing with sticks.

While playing so, one of the sticks got fitted into the other and the stick became lengthier. Immediately Sultan became elated and pulled the banana with this long stick and ate it. This 'sudden flash of idea' to reach food with longer stick was called as 'Insight', by Kohler.

He conducted many experiments to prove that learning takes place also by insight and not only by trial and error. He concluded that the occurrence of insight to find solution to a problem is possible by perception of the whole situation.

Kohler conducted many experiments on this line of learning to prove that, just trial and error method is not enough to find solution for many complex problems.

Trial and error or association through connectionism and conditioning may account for simple acquisition of knowledge, skills, interests, habits and other personality characteristics. But it is absolutely insufficient for solving complex problems.

It is here the method of insightful learning is very useful. Because it involves many higher mental processes such as thinking, reasoning, intelligence, etc.

Insight occurs, when the individual sees in a flash, the solution to his problem or difficulty. It is not blind or stupid learning. It is an intelligent way of learning. In many occasions people try to size up the situation, things and arrive at a conclusion. With experience man is able to solve problems better and sooner.

He exercises his discrimination ability in solving problems, and learning becomes a matter of insight rather than of trial and error. Archimedes's example of' Aha' experience (eureka) explained in creative thinking is the appropriate example for occurrence of insight.

Learning by Imitation:

It is the simplest method of learning. Many of our day-to-day's activities are learnt by imitating others. For example, the way we eat, drink, walk, talk, dress, etc, are all learnt by imitating others. We observe and watch what and how other people do certain activities and imitate them.

We observe the demonstrations given by an expert, imitate his movements and learn them. By copying the behavior of others, people avoid waste of time and effort of trial and error method of

learning. For example, a boy observes the way of holding a cricket bat, the movements of an expert player, imitates the same and learns.

Psychologists like Millar and Dollard have tried to show that the tendency to imitate is itself a learned response and if reinforced, the individual will be more likely to continue to imitate.

Many people believe that imitation is a lower form type of learning. Still others argue that imitation can never lead to novel responses and there will be no chance to use individual's creativity or originality. But at the same time many educationists believe that only the imitative individual can learn better. Whatever may be the opinion it is quite obvious that we learn many things by imitation.

Laws of Learning:

EL Thorndike has explained three laws of learning called Primary laws and in addition to these, he has also framed 5 subsidiary laws in connection with his trial and error learning theory.

Primary laws:

These are the most important laws, which explain the basic aspects of learning. They are:

1. Law of readiness:

By readiness means the organism is ready to respond or act. This is more essential prerequisite for learning.

This indicates that the animal or human being is motivated to learn. This condition of readiness has two effects— satisfaction and annoyance. When the animal is ready to act- if permitted- it gives pleasure. If it is not permitted, it feels annoyed.

In the same way when the animal is not ready to learn- if asked to learn- it is annoying. On the other hand, if it is prevented from learning it gives pleasure.

These points have been given below in the words of Thorndike:

a. For a conduction unit ready to conduct-to conduct is satisfying.

b. For a conduction unit ready to conduct-not to conduct is annoying.

c. For a conduction unit not ready to conduct- to conduct is annoying.

This law clearly shows that readiness of a person to learn is very important. Hence motivate him to learn.

2. Law of exercise:

This law is also known as law of frequency. Frequency refers to number of repetitions of learning. Thorndike believed that repeated exercising of a response strengthens its connection with stimulus.

This aspect refers to law of use and disuse, which explains that, anything not in use will perish. So also if the response is not repeated, its bond with stimulus gets weakened. This is also according to the statement that 'practice makes man perfect'.

In Thorndike's experiment the cat becomes perfect after repeating the response more number of times, i.e. it learnt to open the door without committing any error.

3. Law of effect:

This law states that when a connection is accomplished by satisfying effect- its strength is increased. By this, Thorndike meant that the probability of its occurrence is greater. In his experiment if the hungry cat succeeded in opening the door, would get its favorable dish to eat.

This had a positive effect on its response. Rewards always strengthen connections between stimuli and responses, and on the other hand, punishment weakens connections.

Secondary laws:

In addition to the three primary laws explained above, Thorndike has given five secondary or subsidiary laws also.

They are as follows:

a. Law of multiple response:

It means when a response fails to elicit a desired effect, the learner will try with new responses until the goal is reached.

b- Law of set or attitude:

Mental set or positive attitude is very important in any learning.

***c.* Law of associative shifting:**

This is nothing but shifting of the response to a new situation which is similar to the earlier one. Because the fundamental notion is that, if a response can be kept intact through a series of changes in stimulating situation, it may finally be given to a new situation.

d. Law of prepotency of elements:

This law states that the learner is able to react in a selected way, only to the salient elements of the problem and not for other unimportant elements.

e. Law of response by analogy:

It means comparing a new situation to the previously learned one and thus giving a response by analogy.

As stated above, Thorndike formulated these laws on the basis of his experiments. According to the law of readiness, the cat was ready to learn, because it was hungry. This hunger motivated the cat to learn to open the door.

According to the second law, the cat was repeatedly given trials and exercise which strengthened its learning. Finally on each trial the cat was given reinforcement in the form of fish. This encouraged the cat to continue its effort to learn to open the door. The secondary laws given by him support these findings. These laws are highly relevant to the field of education. The teachers can make use of these laws in order to make their teaching more effective.

Attitude, interest, cognition, emotions and sentiments

Attitude, in social psychology, a cognition, often with some degree of aversion or attraction (emotional valence), that reflects the classification and evaluation of objects and events. While attitudes logically are hypothetical constructs (i.e., they are inferred but not objectively observable), they are manifested in conscious experience, verbal reports, overt behavior, and physiological indicators.

The concept of attitude arises from attempts to account for observed regularities in the behavior of individual persons. For example, one tends to group others into common classes (i.e., all of the people in this room are wearing basketball uniforms). One also classifies objects such as paintings or events such as battles.

The quality of one's attitudes is judged from the observable, evaluative responses that are made. While one might consult one's inner experiences as evidence of one's own attitudes, only public behavior can receive objective study. For this reason investigators rely heavily on behavioral indexes of attitudes—e.g., on what people say, on how they respond to questionnaires, or on such physiological signs as changes in heart rate.

Other investigators hold that one's attitude toward any category will correlate with how well that category serves one's own values. For example, a person may be asked to rank specific values such as health, safety, independence, or justice. The person is then asked to estimate the degree to which a particular class (such as politicians, medical doctors, or police) tends to facilitate or impede each value. The sum of the products of these two ratings provides a measure of the individual's attitude toward the group. Thus, if justice is held in high regard, but the person categorizes politicians as interfering with justice, then the person's attitude toward that class of people is taken to be negative.

Attitudes are sometimes regarded as underlying predispositions, while opinions are seen as their overt manifestations. A rarer distinction equates attitudes with unconscious and irrational tendencies but equates opinions with conscious and rational activities. Others view attitudes as meaningful and central but consider opinions as more peripheral and inconsequential. A still more popular distinction likens attitudes to matters of taste (e.g., preferences for a certain cuisine or type of music) and opinions to questions of fact (e.g., whether public transportation should be subsidized). (*See also* taste, criticism, and judgment in aesthetics.)

Some authorities make a critical distinction between attitudes and a number of other related terms. These can be arranged in a hierarchy based on their degree of specificity or exclusiveness. "Values" are said to represent very broad tendencies of this type, "interests" being slightly less inclusive, and "sentiments" narrower still; "attitudes" are viewed as still more narrow

predispositions, with “beliefs” and “opinions” being progressively the most specific members of this hierarchy. According to this terminology the difference is one of degree rather than of kind.

Some apply the term “knowledge” to what are held to be certainties and “attitudes” to what is uncertain, even using them to mean “true” and “false” beliefs, respectively. Another suggestion is that attitudes refer to beliefs that impel action while knowledge is more intellectual and passive.

The study of attitude change—that is, the processes by which people acquire new attitudes—has been a major focus of social psychological research since the mid-20th century, and work in this field has led to theoretical developments (e.g., cognitive dissonance) and practical applications (e.g., in politics and advertising).

The term **Attitude** as well as the concepts "attitude formation" and "attitude change" constitute an important part of the field of social psychology. Attitudes are an evaluation of a particular person, belief, event, place, or thing. They are positive or negative views of an "attitude object." People may also have ambivalent feelings toward a certain target, which means that they can simultaneously possess positive and negative attitudes toward the same object.

Affect, cognition, and action are the three aspects of an attitude. Learning, including classical and operant conditioning, as well as reduction or resolution of cognitive dissonance lead to the formation of attitudes. The main external source for attitude change is persuasion.

Attitudes may be regarded as predisposition, and are not always directly connect to behavior. However, the generation of stereotypesand opinions regarding people is often linked to antagonistic or discriminatory behavior. As people come into contact with others in the workplace, as well as in their personal lives, understanding how to develop appropriate attitudes that support harmonious relationships is of great importance.

Aspects of attitudes

Attitudes may be "implicit," or unconscious, as well as "explicit," as in the response that people give when asked their opinion on something. Both types may affect behavior, although in different ways. The relationship between these two types of attitudes is complex and not well understood.

Attitudes are generally understood to have three components: affective or emotional features, behavioral or action components, and cognitive aspects related to thought

and beliefs. Social psychologists have studied all three aspects of attitudes, and their inter-relationships, and have developed several theories in which attitude is the central and key concept in understanding and explaining human behavior in social situations.

Affect

Affective components of attitudes can be very strong and influential. For example, a bigot feels uneasy in the presence of people from a certain religious, racial, or ethnic group; the nature lover feels exhilaration from a pleasant walk through the woods and mountains. Like other emotional reactions, these feelings are strongly influenced by direct or vicarious conditioning.

The affective components consist of the kinds of feelings that a particular topic arouses. The affective response is a physiological response that expresses an individual's preference for an entity. It is a conditioned emotional response, which has been linked to a previously non-emotional stimulus. The affective component of an attitude grows into a reflex that is intertwined with new emotional responses.

Cognition

The **cognitive response** is a cognitive evaluation of the entity to form an attitude. The cognitive component consists of a set of beliefs about a topic. People acquire most beliefs about a particular topic quite directly: They hear or read a fact or an opinion, or other people reinforce their statements expressing a particular attitude. It is formed through direct instructions, reinforcement, imitation and/or exposure. Children form attitudes by imitating the behavior of people who play important roles in their lives. Children usually repeat opinions expressed by their parents. Most attitudes in individuals are a result of "social learning" from their environment. Psychologists use the expression "mere exposure" effect to denote the formation of a positive attitude toward a person, place, or thing based solely on repeated exposure to that person, place, or thing.

Behavior

The **behavioral component** consists of a tendency to **act** in a particular way with respect to a particular topic. Attitudes are more likely to be accompanied by behaviors if the effects of the behaviors have motivational relevance for the person. Sivacek and Grano (1982) demonstrated this phenomenon by asking students to help campaign against a law pending in the state legislature that would raise the drinking age from eighteen to twenty. Although almost all the

students were opposed to the new drinking law, younger students, who would be affected by its passage, were more likely to volunteer their time and effort.

There is not a 100 percent correspondence between attitudes and behavior. The link between attitudes and behavior depends on attitude specificity, attitude relevance, personality, social constraints, and timing of measurement. For example, a person may have a positive attitude towards blood donation but not go to a blood bank to donate blood. Differences in degrees of specificity of the attitude and behavior, motivational relevance, the opportunity a person has had to observe his/her own attitude-related behavior, and external constraints that prevent a person's acting on his/her attitude all come into play.

The strength of the link between particular attitudes and behavior varies but usually people strive for consistency between their attitudes and their behavior. A source of discrepancy between attitudes and behaviors can be the constraints on behavior. For example, a young man might have a very positive attitude toward a certain young woman, however, he never kisses her because she has plainly shown that she is not interested in him. No matter how carefully the young man's attitudes are measured, it is impossible to predict his behavior without additional information from the young woman. Thus, people do not always behave as their expressed attitudes and beliefs would lead others to expect. Psychologists mention a few situations when attitudes and behavior diverge: the person's motivational relevance, self-attribution, degree of specificity of situations, constraints on behavior. The "behavioral intention" is a verbal indication of the intention of an individual.

Attitude formation and attitude change

Unlike personality, attitudes are expected to change as a function of experience. Tesser (1993) has argued that heredity variables may affect attitudes, but believes that may do so indirectly. For example, if one inherits the disposition to become an extrovert, this may affect one's attitude to certain styles of music.

There are numerous theories of attitude formation and attitude change. Persuasion is the process of changing attitudes. Two aspects of persuasion process have received special attention: the source of the message and the message itself. A message tends to be more persuasive if its source is credible. Source credibility is high when the source is perceived as knowledgeable and is trusted to communicate this knowledge accurately. Attractiveness of the source has also a definite impact in the process of persuasion. For example, individuals who are asked to endorse products for advertisers are almost always physically attractive or appealing in other ways.

Another example, physically attractive people are more likely to persuade others to sign a petition (Eagly and Chaiken, 1993). The social psychological mechanisms of attitude formation and attitude change are identical.

Persuasion

The celebrated work of Carl Hovland, at Yale University in the 1950s and 1960s, helped advance knowledge of persuasion. In Hovland's view, we should understand attitude change as a response to communication. He and his colleagues did experimental research into the factors that can affect the persuasiveness of a message:

1. **Target Characteristics**: These are characteristics that refer to the person who receives and processes a message. One such is intelligence. It seems that more intelligent people are less easily persuaded by one-sided messages. Another variable that has been studied in this category is self-esteem. Although it is sometimes thought that those higher in self-esteem are less easily persuaded, there is some evidence that the relationship between self-esteem and ease of persuasion is actually curvilinear, with people of moderate self-esteem being more easily persuaded than both those of high and low self-esteem levels (Rhodes & Woods, 1992). The mind frame and mood of the target also plays a role in this process.
2. **Source Characteristics**: The major source characteristics are expertise, trustworthiness and attractiveness. The credibility of a perceived message has been found to be a key variable here (Hovland & Weiss, 1951); if one reads a report on health and believes it comes from a professional medical journal, one may be more easily persuaded than if one believes it is from a popular newspaper. It has been questioned whether this is a long-lasting effect, with Hovland and Weiss (1951) finding the effect of telling people that a message came from a credible source to disappear after several weeks (the so-called "sleeper effect"). However, this sleeper effect is controversial. It appears that if people are informed of the source of a message before hearing it, there is less likelihood of a sleeper effect than if they are told a message and then told its source.
3. **Message Characteristics**: The nature of the message plays a role in persuasion. Sometimes presenting both sides of a story is useful to help change attitudes.
4. **Cognitive Routes**: A message can appeal to an individual's cognitive evaluation to help change an attitude. In the "central route" to persuasion the individual is presented with the data and motivated to evaluate the data and arrive at an attitude changing conclusion.

In the "peripheral route" to attitude change, the individual is encouraged not to look at the content but at the source. This is commonly seen in modern advertisements that feature celebrities. In some cases, doctors and experts are used. In other cases film stars are used for their attractiveness.

Theories of attitude formation and attitude change

A variety of theories attempt to explain attitude formation and attitude change from various aspects of emotional life, behavior, and cognition.

Consistency theories of cognitive dissonance

Consistency theories imply that we seek to be consistent in our beliefs and values. The most famous example of such a theory is Dissonance-reduction theory, associated with the name of Leon Festinger.

According to Festinger's theory, when we perceive a discrepancy between our attitudes and behavior, between our behavior and self-image, or between one attitude and another, a frustrating state of anxiety, or "dissonance," results. For example, a person may successfully overcome a childhood racial prejudice but may experience unpleasant emotional arousal at the sight of a racially mixed couple. The person experiences a conflict between the belief in his own lack of prejudice and the evidence of prejudice from his behavior. This internal conflict produces cognitive dissonance, which is aversive. According to Festinger, a crucial source of a person's motivations dissonance reduction: The aversive state of dissonance motivates a person to reduce it. Because dissonance reduction involves the removal of an aversive stimulus, it serves as a negative reinforce.

A person can achieve dissonance reduction either by reducing the importance of the dissonant element (Strategy 1) or by adding consonant elements (Strategy 2), or by changing one of the dissonant elements (Strategy 3). For example, a student believes she is very intelligent but she invariably gets bad grades in her courses. Because the obvious prediction is that intelligent people get good grades, the discrepancy causes the student to experience dissonance. To reduce this dissonance, she might decide grades are unimportant and intelligence is not closely related to grades. This is using Strategy 1, reducing the importance of one of the dissonant elements—the fact that she got bad grades in her courses. Or she can dwell on the belief that her professors have been unfair or that her job leaves her only little time to study. In this case, she is using Strategy 2, reducing dissonance by adding consonant elements—those factors that can account for her poor grades and hence explain the discrepancy between her perceived intelligence and actual

grades. Finally, she can use Strategy 3 to change one of the dissonant elements. She can either start getting good grades or revise her opinion of her own intelligence.

Self-perception theory

Self-perception theory is an account of attitude change developed by psychologist Daryl Bem. It asserts that we only have that knowledge of our own behavior and its causation that another person can have, and that we therefore develop our attitudes by observing our own behavior and concluding what attitudes must have caused them.

Self-perception theory differs from cognitive dissonance theory in that it does not hold that people experience a "negative drive state" called "dissonance" which they seek to relieve. Instead, people simply "infer" their attitudes from their own behavior in the same way that an outside observer might. In this way it combines dissonance theory with attribution theory.

Bem ran his own version of Festinger and Carlsmith's famous cognitive dissonance experiment. Subjects listened to a tape of a man enthusiastically describing a tedious peg-turning task. Some subjects were told that the man had been paid $20 for his testimonial and another group was told that he was paid $1. Those in the latter condition thought that the man must have enjoyed the task more than those in the $20 condition. Bem argued that the subjects did not judge the man's attitude in terms of cognitive dissonance phenomena, and that therefore any attitude change the man might have had in that situation was the result of the subject's own self-perception. Cognitive dissonance theory cannot explain attitude change that occurs when there is no upsetting dissonance state, such as that which occurred to subjects in studies of the over justification effect.

Whether cognitive dissonance or self-perception is a more useful theory is a topic of considerable controversy and a large body of literature, with no clear winner. There are some circumstances where each theory is preferred, but it is traditional to use the terminology of cognitive dissonance theory by default.

Balance theory

Balance Theory is a motivational theory of attitude change proposed by Fritz Heider, which conceptualizes the consistency motive as a drive toward psychological balance. Heider proposed that "sentiment" or liking relationships are balanced if the affect valence in a system multiplies out to a positive result.

For example, a person **P** who likes another person **O** will be balanced by the same valence attitude on behalf of the other. Symbolically (+) > **O** and **P** < (+) **O** results in psychological balance.

This can be extended to objects (**X**) as well, thus introducing triadic relationships. If a person **P** likes object **X** but dislikes other person **O**, what does **P** feel upon learning that **O** created **X**? This is symbolized as such:

- **P** (+) > **X**
- **P** (-) > **O**
- **O** (+) > **X**

Multiplying the signs shows that the person will perceive imbalance (a negative multiplicative product) in this relationship, and will be motivated to correct the imbalance somehow. The Person can either:

- Decide that **O** isn't so bad after all,
- Decide that **X** isn't as great as originally thought, or
- Conclude that **O** couldn't really have made X.

Any of these will result in psychological balance, thus resolving the dilemma and satisfying the drive. (Person **P** could also avoid object **X** and other person **O** entirely, lessening the stress created by psychological imbalance.)

Balance Theory is also useful in examining how celebrity endorsement affects consumers' attitudes toward products. If a person likes a celebrity and perceives (due to the endorsement) that said celebrity likes a product, said person will tend to like the product more, in order to achieve psychological balance. However, if the person already had a dislike for the product being endorsed by the celebrity, she may like the celebrity less instead of liking the product more, again to achieve psychological balance.

To predict the outcome of a situation using Heider's Balance Theory, one must weigh the effects of all the potential results, and the one requiring the least amount of effort will be the likely outcome.

Elaboration Likelihood Model

The Elaboration Likelihood Model of persuasion (ELM; proposed by Petty & Cacioppo, 1981, 1986) is a model of how attitudes are formed and changed. Central to this model is the **elaboration continuum**, which ranges from low elaboration (low thought) to high

elaboration (high thought). Depending on the extent of elaboration, different processes can mediate persuasion.

The ELM distinguishes between two routes to persuasion: the "Central Route" and the "Peripheral Route." Central route processes are those that require a great deal of thought, and therefore are likely to predominate under conditions that promote high elaboration. Central route processes involve careful scrutiny of a persuasive communication (a speech, an advertisement, and so forth) to determine the merits of the arguments. Under these conditions, a person's unique cognitive responses to the message determine the persuasive outcome (the direction and magnitude of attitude change).

Peripheral route processes, on the other hand, require little thought, and therefore predominate under conditions that promote low elaboration. These processes often rely on judgmental heuristics (such as "experts are always right") or surface features of a message (the number of arguments presented) or its source (their attractiveness).

Which route is taken is determined by the extent of elaboration. Both motivational and ability factors determine elaboration. Motivational factors include (among others) the personal relevance of the message topic, accountability, and a person's Need for Cognition (their innate desire to enjoy thinking). Ability factors include the availability of cognitive resources (e.g., the presence or absence of time pressures or distractions) or relevant knowledge needed to carefully scrutinize the arguments. Under conditions of moderate elaboration, a mixture of central and peripheral route processes will guide information processing.

Social judgment theory

The **Social Judgment theory** of attitude change was proposed by Carl Hovland and Muzafer Sherif. This theory attempts to explain how attitude change is influenced by judgmental processes. The key idea of Social Judgment theory can be understood and explained in terms of "attribution" and other "communication processes." "Attribution" is the process by which people decide why certain events occurred or why a particular person acted in a certain manner. The following factors influence the person's attribution: internal versus external causes of own behavior and the behaviors of others, consistency consensus, a certain person's role as an "actor" or a "receiver" in a particular situation.

A study of weight perception illustrates the theory. Participants are asked to categorize several small weights by weight class based only on lifting each one in turn. A control

group **C** categorized the weights roughly evenly across six weight classes, while another group **A**was asked to lift a much heavier weight before each test weight. This group categorized most weights in the lowest weight class, with decreasing quantities in each successively higher weight class. The third group **B** lifted a weight only as heavy as the highest weight class before judging each other weight; this group categorized most weights into the highest weight class, with decreasing quantities in successively lower classes; the opposite result of group **A**, and contrary to predictions of the contrast effect. Hovland and Sherif called this effect, where things start to seem more like their context (the heavy weight), the assimilation effect. In terms of anchoring and adjustment, when an anchor (the heavy weight) approaches the range of possible judgments (the six weight classes), the categorization or judgment shifts from contrast to assimilation. When applied to social judgments, these effects show that the most effective position to advocate for changing another's attitude judgment is the most extreme position within that person's "latitude of acceptance," within which assimilation effects will make your position seem more like their own. Beyond this latitude lies the latitude of rejection, within which any position will be seen as more different from one's own due to contrast effects.

Attitudes and prejudices in the workplace

In our age of globalization the understanding and explanation of attitudes and prejudices has become crucial. Prejudice is a particular form of attitude. It is a negative evaluation of a group of people defined by such characteristics as social class, race, ethnicity, religion, gender, socio-economic status, sexual orientation, and so forth.

An important component of prejudice is the existence of stereotypes—reduced and often distorted beliefs about the characteristics possessed by members of a particular group. Stereotypes are examples of the heuristics that guide us through many of our social encounters. One reason we tend to view out-group members negatively is our use of the available heuristic: Negative behaviors are often more vivid than positive ones, and out-group members are more noticeable. Thus, when out-group members commit an illegal act, we are more likely to notice it and to remember it. We then incorrectly conclude that the behavior is a characteristic of the out-group as a whole. People also tend to apply the illusion of out-group homogeneity. Although they realize that their own group contains members who are very different from each other, they tend to view members of other groups as rather similar. Obviously, this tendency contributes to the formation of stereotypes.

Prejudices often lead to discrimination—actual behaviors injurious to the members of the group. Intergroup conflict, such as war or gang violence, often has at its core ethnocentrism, or the belief that one's own group is superior to or more deserving than another group.

Attitudes and Education

Educational psychologists often use the concept "positive mental attitudes" which can be interpreted "Our attitude determines our altitude." Development of positive attitudes about oneself, or self-esteem, and others generally facilitates the accomplishment of goals.

Each person has many attitudes. These attitudes can be divided into two main groups: the way things are, "realities," and the way things should be, "values." For personality growth, an individual should not focus just on their realities, but on their hopes and dreams for what can come to be—what they value. Character education aims to develop value-based attitudes, personality integrity, and fundamental character strength based on "true values" of life.

Emotion

Emotion is one type of affect, other types being mood, temperament and sensation (for example, pain). Emotions can be understood as either states or as processes. When understood as a state (like being angry or afraid), an emotion is a type of mental state that interacts with other mental states and causes certain behaviors.

Understood as a process, it is useful to divide emotion into two parts. The early part of the emotion process is the interval between the perception of the stimulus and the triggering of the bodily response. The later part of the emotion process is a bodily response, for example, changes in heart rate, skin conductance, and facial expression. This description is sufficient to begin an analysis of the emotions, although it does leave out some aspects of the process such as the subjective awareness of the emotion and behavior that is often part of the emotion response (for example, fighting, running away, hugging another person).

The early part of the process is typically taken to include an evaluation of the stimulus, which means that the occurrence of an emotion depends on how the individual understands or "sees" the stimulus. For example, one person may respond to being laid-off from a job with anger, while another person responds with joy—it depends on how the individual evaluates this event. Having this evaluative component in the process means that an emotion is not a simple and direct response to a stimulus. In this way, emotions differ from reflexes such as the startle response or the eye-blink response, which are direct responses to certain kinds of stimuli.

No aspect of our mental life is more important to the quality and meaning of our existence than emotions. They are what make life worth living, or sometimes ending. So it is not surprising that most of the great classical philosophers—Plato, Aristotle, Spinoza, Descartes, Hobbes, Hume—had recognizable theories of emotion, conceived as responses to certain sorts of events of concern to a subject, triggering bodily changes and typically motivating characteristic behavior. What is surprising is that in much of the twentieth-century philosophers of mind and psychologists tended to neglect them—perhaps because the sheer variety of phenomena covered by the word "emotion" and its closest neighbors tends to discourage tidy theory. In recent years, however, emotions have once again become the focus of vigorous interest in philosophy, as well as in other branches of cognitive science. In view of the proliferation of increasingly fruitful exchanges between researchers of different stripes, it is no longer useful to speak of the philosophy of emotion in isolation from the approaches of other disciplines, particularly psychology, neurology, evolutionary biology, and even economics. While it is quite impossible to do justice to those approaches here, some sidelong glances in their direction will aim to suggest their philosophical importance.

I begin by outlining some of the ways that philosophers have conceived of the place of emotions in the topography of the mind, particularly in their relation to bodily states, to motivation, and to beliefs and desires, as well as some of the ways in which they have envisaged the relation between different emotions. Most emotions have an intentional structure: we shall need to say something about what that means. Psychology and more recently evolutionary biology have offered a number of theories of emotions, stressing their function in the conduct of life. Philosophers have been especially partial to cognitive theories, emphasizing analogies either with propositional judgments or with perception. But different theories implicitly posit different ontologies of emotion, and there has been some dispute about what emotions really are, and indeed whether they are any kind of thing at all. Emotions also raise normative questions: about the extent to which they can be said to be rational, or can contribute to rationality. In that regard the question of our knowledge of our own emotions is especially problematic, as it seems they are both the object of our most immediate awareness and the most powerful source of our capacity for self-deception. This results in a particularly ambivalent relation between emotions and morality. I will conclude with a brief survey of some recent trends, particularly as they affect and are influenced by the neighboring disciplines in which the study of emotions has become increasingly prominent.

1. Emotions and the Topography of the Mind

How do emotions fit into different conceptions of the mind? One model, advocated by Descartes as well as by many contemporary psychologists, posits a few basic emotions out of which all others are compounded. An alternative model views every emotion as consisting in, or at least including, some irreducibly specific component not compounded of anything simpler. Again, emotions might form an indefinitely broad continuum comprising a small number of finite dimensions (e.g. level of arousal, intensity, pleasure or aversion, self- or other-directedness, etc.).

In much the way that color arises from the visual system's comparison of retinal cones, whose limited sensitivity ranges correspond roughly to primary hues, we might then hope to find relatively simple biological explanations for the rich variety of emotions. Rigid boundaries between them would be arbitrary. Alternative models, based in physiology or evolutionary psychology, have posited modular subsystems or agents the function of which is to coordinate the fulfilment of basic needs, such as mating, affiliation, defense and the avoidance of predators. (Panksepp 1998, Cosmides and Tooby 2000).

To date cognitive science does not seem to have provided any crucial tests to decide between competing models of the mind. An eclectic approach therefore seems warranted. What does seem well established in the light of cross-cultural research is that a small number of emotions have inter-translatable names and universally recognizable expressions. According to Ekman and Friesen (1989) these are happiness, sadness, fear, anger, surprise, and disgust (the last two of which, however, some researchers consider too simple to be called emotions) (Panksepp 1998). Other emotions are not so easily recognizable cross-culturally, and some expressions are almost as local as dialects. But then this is an issue on which cognitive science alone should not, perhaps, be accorded the last word: what to a neurologist might be classed as two tokens of the same emotion type might seem to have little in common under the magnifying lens of a Marcel Proust.

Other models propose mutually conflicting ways of locating emotion within the general economy of the mind. Some treat emotion as one of many separate faculties. For Plato in the *Republic,* there seems to have been three basic components of the human mind: the reasoning, the desiring, and the emotive parts. For Aristotle, the emotions are not represented as constituting a separate agency or module, but they had even greater importance, particularly in the moral life, our capacity for which Aristotle regarded as largely a result of learning to feel the right emotions in the right circumstances. Hume's notorious dictum that reason is and ought to be the slave of the passions also placed the emotions at the very center of character and agency. For Spinoza, emotions are not lodged in a separate body in conflict with the soul, since soul and body are aspects of a single reality; but emotions, as affections of the soul, make the difference between the best and the worst lives, as they either increase the soul's power to act, or diminish that power. In other models, emotions as a category are apt to be sucked into either of two other faculties of mind. They are then treated as mere composites or offshoots of those other faculties: a peculiar kind of belief, or a vague kind of desire or will. The Stoics made emotions into judgments about the value of things incidental to an agent's virtue, to which we should therefore remain perfectly indifferent. Hobbes assimilated “passions” to specific appetites or aversions. Kant too saw emotions as essentially conative phenomena, but grouped them with inclinations enticing the will to act on motives other than that of duty.

The revival of philosophical interest in emotions from the middle of the twentieth century can be traced to an article by Erroll Bedford (1957), and a book by Anthony Kenny (1963) which argued against the assumption that emotions are feelings, impervious to either will or reason.

Bedford stressed both the intentionality and the importance of contextual factors on the nature, arousal and expression of emotions. Kenny, reviving some medieval theories of intentionality, urged that emotions should be viewed as intentional states. He defined a notion of a formal object of an intentional state as that characteristic that must belong to something if it is to be possible for the state to relate to it. This implies an excessively strong logical link between the state and its object's actual possession of the characteristic in question. Nevertheless it points to an important condition on the appropriateness of an emotion to a given object (see Section 3 below). These papers gave impetus to what became the cognitivist mainstream in philosophy of emotion, some fairly wide variations going from C.D. Broad (1971 [1954])'s "affect-laden judgments" to the "strong desires" theory advocated by Joel Marks (1982). Among other philosophers responsible for the revival of interest in emotions, Irving Thalberg (1977) took as given the cognitive dimension of emotion, and explored some of the subtleties of the different relations of emotions to their objects. The Wittgensteinian flavor of Bedford's second point, about the contextual dependency of emotions, was elaborated into a "social constructionist" view both by some psychologists and some philosophers (Harré 1986). On this view, favored later by some feminist philosophers such as Naomi Scheman (1983) and Sue Campbell (1998), emotions are not primarily viewed as individual characteristics of the persons to whom they are attributed, but emerge out of the dynamics of social interaction. The influence of Wittgenstein, stemming from his remarks on "seeing-as" (Wittgenstein 1953), was also felt in Robert Roberts' (2003) view of emotions as "concern-based construals".

Twentieth-century Anglo-American philosophy and psychology tended to incorporate emotions into other, better understood mental categories. Under the influence of a "tough-minded" ideology committed to behaviorism, it seemed easier to look for adequate theories of action or will, as well as theories of belief or knowledge, than to construct adequate theories of emotion. Economic models of rational decision and agency inspired by Bayesian theory are essentially assimilative models, viewing emotion either as a species of belief, or as a species of desire.

That enviably resilient Bayesian model has been cracked, in the eyes of many philosophers, by such refractory phenomena as akrasia or "weakness of will." In cases of akrasia, traditional descriptive rationality seems to be violated, insofar as the "strongest" desire does not win, even when paired with the appropriate belief (Davidson 1980). Emotion is ready to pick up the slack. Recent work, often drawing support from the burgeoning study of the emotional brain, has recognised that while emotions typically involve both cognitive and conative states, they are distinct from both, if only in being significantly more complex.

It is one thing, however, to recognize the need for a theory of mind that finds a place for the unique role of emotions, and quite another to construct one. Emotions vary so much in a number of dimensions—transparency, intensity, behavioral expression, object-directedness, and susceptibility to rational assessment—as to cast doubt on the assumption that they have anything in common. However, while this variation may have led philosophers to steer clear of emotions in the past, many philosophers are now rising to the challenge. The explanatory inadequacy of

theories that shortchange emotion is becoming increasingly apparent, and, as Peter Goldie (2000) observes, it is no longer the case that emotion is treated as a poor relation in the philosophy of mind.

2. Emotions as Feelings

The simplest theory of emotions, and perhaps the theory most representative of common sense, is that emotions are simply a class of feelings, differentiated from sensation and proprioceptions by their experienced quality. William James proposed a variant of this view (commonly known as the "James-Lange" theory of emotion, after James and Carl G. Lange) according to which emotions are specifically feelings caused by changes in physiological conditions relating to the autonomic and motor functions. When we perceive that we are in danger, for example, this perception sets off a collection of bodily responses, and our awareness of these responses is what constitutes fear. James thus maintained that "we feel sorry because we cry, angry because we strike, afraid because we tremble, and [it is] not that we cry, strike, or tremble, because we are sorry, angry, or fearful, as the case may be" (James 1884, 190).

One problem with this theory is that it is unable to give an adequate account of the differences between emotions. This objection was first voiced by Walter Cannon (1929). According to James, what distinguishes emotions is the fact that each involves the perception of a unique set of bodily changes. Cannon claimed, however, that the visceral reactions characteristic of distinct emotions such as fear and anger are identical, and so these reactions cannot be what allow us to tell emotions apart. The same conclusion is usually drawn from an oft-cited experiment performed by Stanley Schacter and Jerome Singer (1962). Subjects in their study were injected with epinephrine, a stimulant of the sympathetic system. Schacter and Singer found that these subjects tended to interpret the arousal they experienced either as anger or as euphoria, depending on the type of situation they found themselves in. Some were placed in a room where an actor was behaving angrily; others were placed in a room where an actor was acting silly and euphoric. In both cases the subjects' mood tended to follow that of the actor. The conclusion most frequently drawn is that, although some forms of general arousal are easily labeled in terms of some emotional state, there is no hope of finding in physiological states any principle of distinction between specific emotions. The differentiae of specific emotions are not physiological, but cognitive or something else.

Subsequent research has shown that a limited number of emotions do, in fact, have significantly different bodily profiles (LeDoux 1996; Panksepp 1998). However, brain or bodily changes and the feelings accompanying these changes get us only part way towards an adequate taxonomy. To account for the differences between guilt, embarrassment, and shame, for example, a plausible theory will have to look beyond physiology and common-sense phenomenology.

Another problem with the assimilation of emotions to feeling is that it tempts one to treat emotions as brute facts, susceptible of biological or psychological explanation but not otherwise capable of being rationalized. Emotions, however, are capable of being not only explained, but

also justified—they are closely related to the reasons that give rise to them. If someone angers me, I can cite my antagonist's deprecatory tone; if someone makes me jealous, I can point to his poaching on my emotional property. (Taylor 1975).

Both of these problems—that of differentiating individual emotions, and that of accounting for emotions' various ties to rationality—can be traced, at least in part, to a more fundamental oversight. Feeling theories, by assimilating emotions to sensations, fail to take account of the fact that emotions are typically directed at intentional objects. This defect is to some extent mitigated in what might be regarded as more sophisticated versions of "feeling theories". Peter Goldie (2000) is among those who have recently advocated a return to the close identification of emotions with feelings, on the ground that the divorce between them was decreed on false premises: feelings, too, can actually have intentional objects in the world beyond the bounds of the body (these are what he calls "feelings towards"). Some emotional feelings are simply bodily feelings and thus, whilst intentional, do not have this kind of intentionality (Goldie 2009). Goldie resists both reductive theories which regard emotions as mere compounds of belief and desire, and "add-on theories" that view them as beliefs and desires plus something else — such as feelings, for example. Only if we understand the crucial component of feeling in emotion are we likely to understand the large nugget of truth in the traditional view of emotions as often irrational and disruptive. Furthermore, Goldie holds that certain primitive emotions, on the analogy of cognitively impenetrable perceptual illusions, influence action tendencies without the mediation of propositions or concepts (Goldie 2003).

3. Emotions and Intentional Objects

What does a mood, such as free-floating depression or euphoria, have in common with an episode of indignation whose reasons can be precisely articulated? The first seems to have as its object nothing and everything, and often admits of no particular justification; the second has a long story to tell, typically involving other people and what they have done or said. Not only these people, but the relevant facts about the situations involved, as well as some of the special facts about those situations, aspects of those facts, the causal role played by these aspects, and even the typical aims of the actions motivated by the emotions can all in some context or other be labeled objects of emotion. The wide range of possible objects is suggested by the many different ways we fill in ascriptions of emotions. If someone is indignant, then there is some object *o* or proposition *p* such that the person is indignant at or with *o*, about *p* or that *p*, because of *p*, or in virtue of *p*.

This variety has led to a good deal of confusion. A long-standing debate, for example, concerns the extent to which the objects of emotions are to be identified with their causes. This identification seems plausible; yet it is easy to construct examples in which being the cause of an emotion is intuitively neither a necessary nor a sufficient condition for its being its object: if A gets annoyed at B for some entirely trivial matter, drunkenness may have caused A's annoyance, yet it is in no sense its object. Its object may be some innocent remark of B's, which occasioned the annoyance but which it would be misleading to regard as its cause. In fact the object of the

annoyance may be a certain insulting quality in B's remark which is, as a matter of fact, entirely imaginary and therefore could not possibly be its true cause.

The right way to deal with these complexities is to embrace them. We need a taxonomy of the different sorts of possible emotional objects. We might then distinguish different types of emotions, not on the basis of their qualitative feel, but—at least in part—according to the different complex structures of their object relations. Many emotions, such as love, necessarily involve a *target*, or actual particular at which they are directed. Others, such as sadness, do not. On the other hand, although a number of aspects of the loved one may motivate attentional *focus*, efforts to find a*propositional object* for love have been unconvincing. (Kraut 1986; Rorty 1988). Sadness may or may not focus on a propositional object; regret, by contrast, cannot be described without specifying such an object. Depression or elation can lack all three kinds of object. Objectless emotions share many properties with other emotions, especially in their physiological and motivational aspects, but they might more properly be classified as moods rather than full-fledged emotions. Moods typically facilitate certain ranges of object-directed emotions, but they form a class apart.

Finally, while different emotions may or may not have these various sorts of objects, every emotion has a *formal object* if it has any object. A formal object is a property implicitly ascribed by the emotion to its target, focus or propositional object, in virtue of which the emotion can be seen as intelligible. My fear of a dog, for example, construes a number of the dog's features (its salivating maw, its ferocious bark) as being frightening, and it is my perception of the dog as frightening that makes my emotion fear, rather than some other emotion. The formal object associated with a given emotion is essential to the definition of that particular emotion. This explains the appearance of tautology in the specification any formal object (I am disgusted because it is disgusting); but it is also, in part, what allows us to speak of emotions being appropriate or inappropriate. If the dog obstructing my path is a shitzu, my fear is mistaken: the target of my fear fails to fit fear's formal object. As we shall see in section 10 below, appropriateness in this sense does not entail moral correctness; but it makes the emotion intelligible even when it is abhorrent. Thus racist disgust, while obviously morally inappropriate, is nevertheless intelligible in terms of its link to paradigm cases of disgust.

4. Psychological and Evolutionary Approaches

That emotions typically have formal objects highlights another important feature of emotional experience which feeling theories neglect, and which other psychological theories attempt to accommodate: emotions involve evaluations. If someone insults me and I become angry, his impertinence will be the aspect of his behavior that fits the formal object of anger: I only become angry once I construe the person's remark as a slight; the specific nature of my emotion's formal object is a function of my appraisal of the situation. Magna Arnold introduced the notion of appraisal into psychology, characterizing it as the process through which the significance of a situation for an individual is determined. Appraisal gives rise to attraction or aversion, and emotion is equated with this "felt tendency toward anything intuitively appraised as good

(beneficial), or away from anything intuitively appraised as bad (harmful)." (Arnold 1960, 171). Subsequent appraisal theories accept the broad features of Arnold's account, and differ mainly in emphasis. Richard Lazarus (1991) makes the strong claim that appraisals are both necessary and sufficient for emotion, and sees the identity of particular emotions as being completely determined by the patterns of appraisal giving rise to them. Nico Frijda (1986) takes the patterns of action readiness following appraisals to be what characterize different emotions, but departs from Arnold in not characterizing these patterns solely in terms of attraction and aversion. Klaus Scherer and his Geneva school have elaborated appraisal theories into sophisticated models that anatomize different emotions in terms of some eighteen or more dimensions of appraisal. Emotions turn out to be reliably correlated, if not identified, with patterns of such complex appraisals. (Scherer et al., 2001). Appraisal theories can be described as taking a functional approach to emotion, insofar as appraisals lead to reactions whose function is to deal with specific situation types having some significance for an individual (Scherer 2006). This approach suggests that the space of emotions can be conceptualized as multidimensional. In practice, however, so-called dimensional theories simplify the problem of representation by reducing these to just two or three (Russell 2003). Typically these include 'arousal' and 'valence'. This is handy, but tends to flatten out many distinct ways in which one might classify emotional valence as 'positive' or 'negative'. Emotional valence, like value in general, can be assessed in several overlapping dimensions of appraisal: an emotional experience might be hedonically disagreeable, but positive as a health indicator; or it might be positive in a short-term perspective, but negative in the longer term, as attested by the motto "no pain, no gain." I say more in section 11 below about recent explorations and rehabilitations of "negative" emotions.

Other theories consider the function of emotions more broadly, and ask, not why we should have particular emotions on specific occasions, but rather why we should have specific emotion types at all. This question is often given an evolutionary answer: emotions (or at least many of them) are adaptations whose purpose is to solve basic ecological problems facing organisms (Plutchik 1980; Frank 1988). Darwin (1998[1896]) himself was concerned not so much with the question of how our emotions might have evolved, but rather why they should have the forms of expression that they do. Emotional expressions, he thought, once served particular functions (e.g. baring teeth in anger to prepare for attack), but now accompany particular emotions because of their usefulness in communicating these emotions to others. Paul Ekman (1972), inspired by Darwin's approach, takes emotional expressions to be important parts of "affect programs"—complex responses found in all human populations, which are controlled by mechanisms operating below the level of consciousness. Much research has been done on this group of emotions (usually listed as happiness, sadness, fear, anger, surprise, and disgust) and scientifically-minded philosophers often restrict their discussions of emotion to the affect programs, since these are those best understood of all emotional phenomena (Griffiths 1997; DeLancey 2001; Prinz 2004). However, the affect program model leaves out a good deal. In particular, it ignores those emotions which involve higher cognitive processes, such as jealousy, envy, and Schadenfreude. It is these sorts of emotions which many philosophers have made the

focus of their own theories of emotion. The research program of evolutionary psychology (Cosmides et al. 2000) goes some way to filling this lacuna, and emphasizes the modularity that is likely to result on the plausible speculation that different social and psychological emotional functions have been shaped relatively independently by natural selection. Whether emotions function as "mental modules", however, remains a topic of debate (Faucher and Tappolet 2006). In any case, the mechanisms elaborated by natural selection in the context of competitive survival, dominance, mating and affiliation are not necessarily harmonious. Philosophers, for their part, have devoted a good deal of attention to the analysis of more subtle differences between "higher" emotions. (Ben-Ze'ev 2000). This has led many philosophers to stress cognitive aspects of emotions.

5. Cognitivist Theories

Most contemporary philosophical theories of emotion resemble psychological appraisal theories, characterizing emotions primarily in terms of their associated cognitions. But there are several different ways of understanding the cognitions involved. While appraisal theorists generally allow that the cognitive processes underlying emotion can be either conscious or unconscious, and can involve either propositional or non-propositional content, cognitivists typically claim that emotions involve propositional attitudes. Many emotions are specified in terms of propositions: one can't be angry with someone unless one believes that person guilty of some offense; one can't be envious unless one believes that someone else has something good in her possession. Some proponents of cognitivism universalize this feature, and maintain that any emotion must involve some sort of attitude directed at a proposition.

The most parsimonious type of cognitivist theory follows the Stoics in identifying emotions with judgments. Robert Solomon (1980), Jerome Neu (2000) and Martha Nussbaum (2001) take this approach. My anger at someone simply is the judgment that I have been wronged by that person. Other cognitivist theories introduce further elements into their analyses. Emotions have been described as sets of beliefs and desires (Marks 1982), affect-laden judgments (Broad 1971; Lyons 1980), and as complexes of beliefs, desires, and feelings (Oakley 1992).

Cognitivist theories have faced criticism along a number of fronts. Various confusions in the very concept of "cognition" have been alleged to blur most conceptions that invoke that term (Power and Dalgliesh 2008; Debes 2009). John Deigh (1994) has objected that the view of emotions as propositional attitudes has the effect of excluding animals and infants lacking language. Others have argued that if emotions always involve the standard propositional attitudes, namely belief and desire, then an account of the rationality of emotions will collapse into an account of what it is for those standard propositional attitudes to be rational: but emotional rationality is not reducible to the rationality of beliefs or desires (Lyons 1980; de Sousa 1987; Ben-Ze'ev 2000; Goldie 2000; Helm 2001; Elster 2003). Another criticism, stressed by Wollheim (1999) draws upon a difference between transient mental states and mental dispositions. Emotions, like beliefs and desires, can exist either as occurrent events (jealousy of a rival at a party) or as persisting modifications of the mind (a tendency to feel jealousy).

However, dispositional beliefs have a straightforward connection with their occurrent manifestations: if I have a standing belief that the world is round, for example, then I will assent to this proposition on particular occasions. Sincere avowal of desires also counts as evidence for underlying dispositions, though the connection is not as tight. Dispositional emotions, on the other hand, do not have tailor-made forms of expression, but can be manifested in a whole diverse range of behavior. In some cases, what might be held to be dispositional emotions are not necessarily dispositions to undergo a specific occurrent emotion of the same name. Love, for example, while it can be manifested in amorous feelings, is sometimes expressed in any of a practically unlimited variety of occurrent emotions — including longing, grief, jealousy, rage, and other less than pleasant occurrent feelings.

A frequent objection made to cognitivist theories is the "fear of flying" objection: propositional attitudes are neither necessary nor sufficient for the existence of an emotion, since I may be well aware that flying is the safest means of transport and yet suffer fear of flying. (Stocker 1992). I may feel a twinge of suspicion towards my butler, and yet believe him to be utterly trustworthy; conversely, I may judge that he is up to no good, and yet feel nothing in the way of emotion. These examples suggest an analogy with perceptual illusions, which a correct belief sometimes quite fails to dispel. Such "recalcitrant emotions" seem to offer pretty conclusive evidence against the assimilation of at least some emotions either to judgement or to belief (D'Arms and Jacobson 2003; Brady 2009).

A cognitivist might reply that this objection merely establishes that the propositional content of emotion (like the propositional content of perception) differs from the propositional content of belief, not that emotions have no propositional content at all. It remains that even if perceptions necessarily have propositional content, they cannot be assimilated to belief: so it seems to be with emotion. Furthermore, it is not obvious that the content of perceptions or emotions are exhausted by their propositional content (Peacocke 2001). Similarly several theorists insist that experiences of emotion have content beyond any propositional content. (Goldie 2000; Wollheim 1999; Charland 2002; Tappolet 2003).

6. Perceptual Theories

A crucial mandate of cognitivist theories is to avert the charge that emotions are merely "subjective." But propositional attitudes are not the only cognitive states. A more basic feature of cognition is that is has a "mind-to-world direction of fit." The expression is meant to sum up the contrast between cognition and the conative orientation, in which success is defined in terms of the opposite, world-to-mind, direction of fit (Searle 1983). We will or desire what does not yet exist, and deem ourselves successful if the world is brought into line with the mind's plan.

A view ascribing to emotions a true mind-to-world direction of fit, inspired by the model of perception, would involve a criterion of success that depended on correctness with respect to some objective property. To take this approach is to give a particular answer to a question posed long ago in Plato's Euthyphro (the question, as originally put forward, concerned the nature of

piety, but it extends to values in general): Do we love X—*mutatis mutandis* for the other emotions—because X is lovable, or do we declare X to be lovable merely because we love it? The first alternative is the objectivist one, encouraged by the analogy of perception. It requires that we define clearly the relevant sense of 'objectivity'. Specifically it promises a valid analogy between some of the ways in which we can speak of perception as aspiring to objectivity and ways in which we can say the same of emotion.

Emotions are sometimes said to be subjective in this sense: that they merely reflect something that belongs exclusively and contingently to the mind of the subject of experience, and therefore do not co-vary with any property that could be independently identified. This charge presupposes a sense of "objective" that contrasts with "projective," in something like the psychoanalytic sense. In terms of the analogy of perception, to say that emotions are universally subjective in this sense would be to claim that they resemble hallucinations more than veridical perceptions. The perceptual system is capable of the sort of functioning-in-a-vacuum that leads to perceptual mistakes. Similarly, emotions may mislead us into "hasty" or "emotional" judgments (Solomon 1984). On the other hand, the lack of perceptual capacities can be a crippling handicap in one's attempt to negotiate the world: similarly a lack of adequate emotional responses can hinder our attempts to view the world correctly and act correctly in it (Nussbaum 1990, Thomas 1989). This explains why we are so often tempted to take seriously ascription of reasonableness or unreasonableness, fittingness or inappropriateness, for common emotions. Unfortunately it is unclear how the alleged objective properties identified by emotions might be identified independently.

Closely related to the question of the cognitive aspect of emotions is the question of their passivity. Passivity has an ambiguous relation to subjectivity. In one vein, impressed by the bad reputation of the "passions" as taking over our consciousness against our will, philosophers have been tempted to take the passivity of emotions as evidence of their subjectivity. In another vein, however, it has been noted that the passivity of emotions is sometimes precisely analogous to the passivity of perception. How the world is, is not in our power. So it is only to be expected that our emotions, if they actually represent something genuinely and objectively in the world, should not be in our power either: we can no more arbitrarily choose to experience an emotion than we can adopt a belief at will. (Gordon 1987).

If the view that emotions are a kind of perception can be sustained, then the connection between emotion and cognition will have been secured. But there is yet another way of establishing this connection, compatible with the perceptual model. This is to draw attention to the role of emotions as providing the framework for cognitions of the more conventional kind. de Sousa (1987) and Amélie Rorty (1980) propose this sort of account, according to which emotions are not so much perceptions as they are ways of seeing—species of determinate patterns of salience among objects of attention, lines of inquiry, and inferential strategies (see also Roberts 2003). Emotions make certain features of situations or arguments more prominent, giving them a weight in our experience that they would have lacked in the absence of emotion. Consider how Iago

proceeds to make Othello jealous. He directs Othello's attention, suggests questions to ask, and insinuates that there are inferences to be drawn without specifying them himself. Once Othello's attention turns to his wife's friendship with Cassio and the lost handkerchief, inferences which on the same evidence would not even have been thought of before are now experienced as compelling: "Farewell, the tranquil mind…."

This account does not identify emotions with judgments or desires, but it does explain why cognitivist theorists have been tempted to make this identification. Emotions set the agenda for beliefs and desires: one might say that they ask the questions that judgment answers with beliefs and evaluate the prospects that may or may not arouse desire. As every committee chairperson knows, questions have much to do with the determination of answers: the rest can be left up to the facts. In this way emotions could be said to be judgments, in the sense that they are what we see the world "in terms of." But they need not consist in articulated propositions. Much the same reasons motivate their assimilation to desire. As long as we presuppose some basic or preexisting desires, the directive power of "motivation" belongs to what controls attention, salience, and inference strategies preferred.

Some philosophers suggest that the directive power which emotions exert over perception is partly a function of their essentially dramatic or narrative structure (Rorty 1988). A particularly subtle examination of the role of narrative in constituting our emotions over the long term is to be found in (Goldie 2012). It seems conceptually incoherent to suppose that one could have an emotion—say, an intense jealousy or a consuming rage—for only a fraction of a second (Wollheim 1999). One explanation of this feature of emotions is that a story plays itself out during the course of each emotional episode, and stories take place over stretches of time. de Sousa (1987) has suggested that the stories characteristic of different emotions are learned by association with "paradigm scenarios." These are drawn first from our daily life as small children and later reinforced by the stories, art, and culture to which we are exposed. Later still, they are supplemented and refined by literature and other art forms capable of expanding the range of one's imagination of ways to live. Paradigm scenarios involve two aspects: first, a situation type providing the characteristic objects of the specific emotion-type (where objects can be of the various sorts mentioned above), and second, a set of characteristic or "normal" responses to the situation, where normality is determined by a complex and controversial mix of biological and cultural factors. Once our emotional repertoire is established, we interpret various situations we are faced with through the lens of different paradigm scenarios. When a particular scenario suggests itself as an interpretation, it arranges or rearranges our perceptual, cognitive, and inferential dispositions.

A problem with this idea is that each emotion is appropriate to its paradigm scenario by definition, since it is the paradigm scenario which in effect calibrates the emotional repertoire. It is not clear whether this places unreasonable limitations on the range of possible criticism to which emotions give rise. What is certain is that when a paradigm scenario is evoked by a novel

situation, the resulting emotion may or may not be appropriate to the situation that triggers it. In that sense at least, then, emotions can be assessed for rationality.

This brings up normative issues about emotions, which will be addressed in sections 8–10 below. First, however, I consider what one might conclude about the nature or "ontology" of emotions.

7. The Ontology of Emotions

What, in the end, *are* emotions? What do they ultimately consist in? A variety of possible answers to this "ontological" question suggest themselves in the light of the above account. They might be physiological processes, or perceptions of physiological processes, or neuro-psychological states, or adaptive dispositions, or evaluative judgments, or computational states, or even social facts or dynamical processes. In fact most philosophers would assent to most of these descriptions while regarding all as partial. In view of the acknowledged complexity of emotional functions, it seems wise to rephrase the question not in terms of ontology, but in terms of levels of explanation. The trichotomy first introduced by David Marr (1982) remains an excellent starting point. At the*computational* level (which most would now call the *functional* level), we need to identify the emotions' basic teleology: what they are *for*. This will be appropriate even if one believes, as some traditionally have, that emotions actually represent the breakdown of smoothly adaptive functions such as thought, perception, and rational planning. For in that case the emotions will be understood precisely in terms of their failure to promote the smooth working of the cognitive and conative functions. Such a failure will trigger a descent to a lower level of explanation, adverting to the counterproductive exercise of mechanisms at the *algorithmic* and *implementational* levels. The first—-more or less equivalent to the *design level* of (Dennett 1971)—refers to the sub-functions that natural selection has set up to perform the functions said to be disrupted by emotion. The second designates the actual neuro-physiological processes whereby, in animals built on a specific plan such as mammals or humans such as we, these sub-functions are normally carried out.

This trichotomy has been reinterpreted in various ways, but it still serves. It is generally agreed that the simpler emotions, those whose expression and recognition Ekman (1972, 1989) has shown to be universal, are driven by the basic needs of organisms such as mating, defense or avoidance of predators, and social affiliation. All complex mammals require swift, relatively stereotyped responses to these challenges. These are the "affect programs" favored by Ekman (1972, 1989), DeLancey (2001) and particularly Griffiths (1997), to be "what emotions really are." Opinions divide as to whether the same sort of functional analysis can be applied to a wider range of what Griffiths has called the "cognitively penetrable" emotions. Placing severe constraints on what is to count as a "natural kind", Griffiths argued that Ekman's six basic affect programs, and only they, form natural kinds: the others, he claimed, are for the moment beyond the reach of useful scientific investigation. Each affect program comprises a coordinated syndrome of responses (which we attribute to the algorithmic level) implemented at the physiological (hormonal and neurological), muscular-skeletal, and expressive levels in ways that owe their uniformity to homology, that is to say their common ancestral origin. Other emotions,

however, bear only relations of analogy with these and don't count as natural kinds either singly or as a class.

Against this Charland (2002) has argued that a sufficient level of homology can be found to unite at least the basic emotions as a class, and that we should regard *emoters*, and hence their emotions, as a natural kind. Relying on Panksepp (1998, 2000), Charland argues that the integrated mechanism of seven basic emotions (Panksepp's list differs slightly from Ekman's) are implemented by distinct circuits forming natural kinds not only in the human but more widely in the mammalian brain. Emoters form a distinct kind in view of their ancestral organization in terms of certain basic functions, the specific algorithms that contribute to those functions, and their implementation in terms of physiological, expressive, hormonal, and motivational processes. This is sufficient not only to justify treating the specific emotions as natural kinds, but to treat emotion in general as a natural kind (Charland 1995, 1997). This view seems to require that we regard emotions as a set of processes distinguished at all three levels of explanation. Emotions in general should then be viewed as a genus of processes typically involving five different component aspects or components, comprising subjective feeling, cognition, motor expression, action tendencies or desire, and neurological processes (Scherer 2005). On this view, individual emotions would owe their specific identity to all five components: the subfunctions they are designed to serve; their perceptual or quasi judgmental component, their associated desires, their mode of expression, and their characteristic physiological implementation.

Another way of organizing the various approaches might appeal to the dominant theoretical models on which they rest. It has often been said that in the history of the philosophy of mind, every epoch has tended to redefine its subject matter in terms of the most fashionable technological metaphor. The notion of emotions as "springs of action" alludes to the once fashionable model of clockwork. The dominant metaphor in Freud's early work was hydraulic. (Freud 1895). What does this observation lead us to expect for emotions?

At the more remote level of explanation, we have seen that theories favored by cognitive science are likely to appeal to evolutionary ideas. But at more proximate levels, three dominant contemporary models might be expected to lay claims on emotion theory: *physiology*, *computation*, and *dynamical systems*.

Physiological processes are conceded by all philosophers to be involved in clearly prototypical cases of emotion. But no philosopher, for fear perhaps of defining themselves out of relevant competence, has been willing to concede that emotions *just are* physiological processes. Instead they are held to be complexes in which physiology plays a part at the level of implementation of some higher-level process. The higher-level process in which an emotion consists owes its overall structure to functional needs, and typically comprises, in addition to physiological aspects, behavioural, expressive, and phenomenological, components.

Computational theories of emotion seem to have been particularly attractive to psychiatrists and psychoanalysts. They were broached early by a couple of psychoanalysts turned hackers

(Peterfreund 1971), (Shank and Colby 1973) and played an important role in the theoretical elaborations of John Bowlby's work on the mechanisms and psychological consequences of early separation and loss. (Bowlby 1969–1980). These works attempted to model Freudian concepts of the dynamics of conscious and unconscious mental life in computational terms. Colby even constructed a simulation of a paranoid patient, "Parry", which famously fooled some psychiatrists. The key idea was to set up second-order parameters that acted on the first-order modules of perception, belief and desire, thus regulating or disrupting the operation of perceptual and action programs. From the sidelines, de Sousa (1987) suggested that connectionist systems or analog models stand a better chance of modeling emotion than those based on classical von Neuman-type digital computation, but that suggestion hasn't gone anywhere. From the point of view of computational theory, the prevailing wind, backed by both evolutionary speculation and neurological findings on control systems and relatively independent affect-programs, has tended to favour modular conceptions of emotion rather than holistic ones. (Charland 1995, Robinson 2005).

Still, some philosophers and computer scientists have continued to be interested in integrating computing theory with emotions. Aaron Sloman has elaborated the sort of ideas that were embryonic in Shank and Colby into a more sophisticated computational theory of the mind in which emotions are virtual machines, playing a crucial role in a complex hierarchic architecture in which they control, monitor, schedule and sometimes disrupt other control modules. (Wright, Sloman and Beaudoin 1996). The notion of architecture here adverts to the complex hierarchy of control of component modular mechanisms. In line with the three-level schema I have cited from Marr (cf. also (Dennett 1971)), we should understand the approach elaborated in this work as pertaining both to the functional and to the algorithmic level. It explicitly eschews hypotheses about implementation. Joining the growing consensus that emotion phenomena reflect distinct, successively evolved behavioral control systems, Sloman distinguishes between a primitive or primary stream rooted in relatively fixed neuro-physiological response syndromes, a more elaborate control system bringing in cortical control, as well as a third level, probably exclusive to humans, which most closely corresponds to the layer of emotions that we are most concerned with when we think of the emotional charge of art and literature or of the complexity of social intercourse. Rosalind Picard (1997) lays out the evidence for the view that computers will need emotions to be truly intelligent, and in particular to interact intelligently with humans. She also adverts to the role of emotions in evaluation and the pruning of search spaces. But she is as much concerned to provide an emotional theory of computation as to elaborate a computational theory of emotions. Marvin Minsky (2006) explores the many-faceted nature of mental life, including emotions, from a computer modeling point of view. Paul Thagard (2005; 2006) has elaborated computer models in which emotional valence interacts with evidential strength to determine a mode of emotional coherence. There has recently been progress in both detection and increasingly realistic simulations of emotional behaviour by robots, and psychological models have been refined to the point that component models of emotions can give rise to dynamic computational models, which also function as a testing ground for hypotheses about the

constituents of emotion, particularly in the framework of "appraisal theories" (Scherer, Bänziger, Tanja and Roesch, 2010). This inquiry has been pursued with special vigor by the Swiss Centre for Affective Sciences (SCAS) in Geneva.

Dynamical systems theories have been relatively slow to emerge, despite their increasingly fashionable status in more central areas of cognitive science. One remarkable attempt to integrate the perspective of dynamical systems into understanding of emotional life is that of (Magai and Haviland-Jones 2002), who draw on dynamical systems theory to model the elusive combination of unpredictability and patterned coherence found in the life-long evolution of individuality. Like predecessors such as Bowlby (1969–1980), they are motivated by a goal of understanding at the level of conscious experience as well as of underlying mechanisms: dynamical systems theory is only one of their tools. It is therefore particularly pertinent to the preoccupations of those who are interested in the normative dimensions of emotions: their rationality and their irrationality, their capacity for enhancing or inhibiting self-knowledge, and their moral implications. I address these questions in the next three sections.

8. Rationality and Emotions

The clearest notions associated with rationality are coherence and consistency in the sphere of belief, and optimization of outcomes in the sphere of action. But these notions are mainly critical ones. By themselves, they would not suffice to guide an organism towards any particular course of action. For the number of goals that it is logically possible to posit at any particular time is virtually infinite, and the number of possible strategies that might be employed in pursuit of them is orders of magnitude larger. Moreover, in considering possible strategies, the number of consequences of any one strategy is again infinite, so that unless some drastic pre-selection can be effected among the alternatives their evaluation could never be completed. This gives rise to what is known among cognitive scientists as the "Frame Problem": in deciding among any range of possible actions, most of the consequences of each must be eliminated a priori, i.e. without wasting any time on verifying that they are indeed irrelevant.

That this is not as much of a problem for people as it is for machines may well be due to our capacity for emotions. As noted earlier, emotions constitute one of the chief mechanisms whereby attention is constrained and directed. (Matthews and Wells 1994). This allows them to frame our decisions in two important ways. First, they define the parameters taken into account in any particular deliberation. Second, in the process of rational deliberation itself, they render salient only a tiny proportion of the available alternatives and of the conceivably relevant facts. Thus they winnow down to manageable size the number of considerations relevant to deliberation, and help to provide, in any particular situation, the indispensable framework without which the question of rationality could not even be considered. This suggestion, relabeled the "Search hypothesis of emotion", has been elaborated and criticized by Evans (2004), who argues convincingly that it needs to be buttressed by a positive theory of precisely what emotional mechanisms are capable of effecting this task.

In a more pervasive and less easily definable way, the capacity to experience emotion seems to be indispensable to the conduct of a rational life over time. Antonio Damasio (1994) has amassed an impressive body of neurological evidence suggesting that emotions do, indeed, have this sort of function in everyday reasoning. Subjects in his studies who, because of injuries sustained to the prefrontal and somatosensory cortices of the brain, had a diminished capacity to experience emotion, were severely hindered in their ability to make intelligent practical decisions. In these ways, then, emotions would be all important to rationality even if they could not themselves be deemed rational or irrational.

Nevertheless we should not infer that emotions act consistently as aids to rational thought and action. Emotions do play an important role both in determining and in undermining rational thought and action, particularly in a social context (Greenspan 1988; 2000). Yet researchers in recent decades have identified a large number of cases where emotions are indeed guilty of the lapses in rationality imputed by traditional prejudices of philosophers. Some examples: present emotional attitudes to future emotions are systematically distorted by discounting schemes that invert preference orders (Ainslie 1992); we fail in other ways to estimate correctly what our future emotions and preferences will be (Gilbert 2006); our assessment of the past, too, is systematically partial, in that we ignore all but the "peaks" of unpleasantness or pleasure, and the temporally last segments of time (Kahneman 2000); subjects misinterpret their own experience of fear as sexual excitement (Dutton and Aron 1974); and conversely, a mild stimulus to sexual interest causes men—but not women—to accept severely disadvantageous rates of discounting (Daly and Wilson 2004). The picture is further complicated by the fact that some apparent irrationalities may serve group cohesion. Thus in the much studied "ultimatum game", subjects are generally willing to incur considerable costs to punish unfair behavior (Oosterbeek, Sloof and van de Kuilen 2004).

But can emotions be assessed for rationality in themselves, rather than as components of practical strategies? There is a common prejudice that "feelings," a word now sometimes commonly used interchangeably with "emotions," neither owe nor can give any rational account of themselves. Yet we equally commonly blame others or ourselves for feeling "not wisely, but too well," or for targeting inappropriate objects. The norms appropriate to both these types of judgment are inseparable from social norms, whether or not these are endorsed. Ultimately they are inseparable from conceptions of normality and human nature. Judgments of reasonableness therefore tend to be endorsed or rejected in accordance with one's ideological commitments to this or that conception of human nature. It follows that whether these judgments can be viewed as objective or not will depend on whether there are objective facts to be sought about human nature. On this question there is fortunately no need to pronounce. It is enough to note that there is no logical reason why judgments of reasonableness or irrationality in relation to emotions need be regarded as any more subjective than any other judgments of rationality in human affairs.

Exactly how one conceives of the nature of emotional rationality will depend on one's theory of what the emotions are. Cognitivist and appraisal theories will say that a reasonable emotion is

one whose constituent propositional attitudes or appraisals are reasonable. Theories which take emotions to be perceptions of objective values will claim that the target of an appropriate emotion should possess the value which the emotion presents it as having. Narrative theories will consider an emotion appropriate if its dramatic structure adequately resembles that of its eliciting situation.

Of course, these answers to the question of what it is for an emotion to be reasonable suppose that the relevant notion of rationality is an epistemic one, and that what appropriate emotions succeed in achieving is some sort of representational adequacy. This assumes that emotions are states that we passively undergo. However, the relation of the emotions to the will is not as clear as the word "passion" might suggest. Certain philosophers have argued that emotions are more like actions, for which we must bear responsibility (Sartre 1948; Solomon 1980). If this is true, and emotions are to some extent under our voluntary control, then emotions will also be assessable for their strategic rationality.

Close to the issue of emotional rationality lies the question of whether emotions should be appraised in a dimension of "authenticity": once we give up the naive assumption that emotions are simply "natural" biological states, how should we assess the enhancement of emotions through chemical means? The ubiquity of prescription drugs purporting to promote equanimity, relieve depression, and enhance cognitive powers demands that we take a stance on the broader question of the desirability of promoting chemical enhancements of our emotional capacities. Should we welcome such enhancements, whether with the technological assistance of "big pharma" or by the more artisanal means of "recreational" drugs? Or should we, in the name of emotional "authenticity", insist that emotions are authentic only when their chemical infrastructure is entirely endogenic? The debate has barely begun (Kraemer 2011). Whether or not enhancing our emotional capability is possible or desirable, however, the results may be no more predictable than when one attempts to call up an emotion at will: the emotion that is actually triggered may not be the one that was summoned. If a person is not aware that a substitution has taken place, then she will be self-deceived about her emotions—an all too frequent occurrence, worthy of a brief discussion in its own right.

9. Emotions and Self-knowledge

We often make the "Cartesian" assumption that if anyone can know our emotions it is ourselves. Descartes said it thus: "it is impossible for the soul to feel a passion without that passion being truly as one feels it." Barely a page later, however, he noted that "those that are most agitated by their passions are not those who know them best" (Descartes 1984 [1649], 338, 339). In fact, few kinds of self-knowledge could matter more than knowing one's own repertoire of emotional responses. At the same time, emotions are both the cause and the subject of many failures of self-knowledge. Their complexity entails much potential to mislead or be misled. Insofar as most emotions involve belief, they inherit the susceptibility of the latter to self-deception. Recent literature on self-deception has striven to dissolve the air of paradox to which this once gave rise (Fingarette 1969, Mele 1987). Furthermore, brain scientists have noted the pervasive nature of

self-deception and of different species of "confabulation", and they have begun to make progress in unmasking the underlying neurological processes (Hirstein 2005). But there remain three distinct sources of self-deception that stem from features of emotions already alluded to.

The first arises from the connection of emotion with bodily changes. There was something right in James's claim that the emotion follows on, rather than causing the voluntary and involuntary bodily changes which are held to express it. Because some of these changes are either directly or indirectly subject to our choices, we are able to pretend or dissimulate emotion. That implies that we can sometimes be caught in our own pretense. Sometimes we identify our emotions by what we feel: and if what we feel has been distorted by a project of deception, then we will misidentify our own emotions.

A second source of self-deception arises from the role of emotions in determining salience among potential objects of attention or concern. Poets have always known that the main effect of love is to redirect attention: when I love, I notice nothing but my beloved, and nothing of his faults. When my love turns to anger I still focus on him, but now attend to a very different set of properties. This suggests one way of controlling or dominating my emotion: think about something else, or think differently about this object (Greenspan 2000). But this carries a risk. It is easier to think of something than to avoid thinking about it; and to many cases of emotional distress only the latter could bring adequate relief. Besides, one is not always able to predict, and therefore to control, the effect that redirected attention might produce. This familiar observation alerts us to the role of the unconscious: if among the associations that are evoked by a given scene are some that I can react to without being aware of them, then I will not always be able to predict my own reactions, even if I have mastered the not altogether trivial task of attending to whatever I choose. Where the unconscious is, self-deception necessarily threatens.

This brings us to the third source of emotional self-deception: the involvement of social norms in the determination of our emotions. This possibility arises in two stages from the admission that there are unconscious motivations for emotions. First, if I am experiencing an emotion that seems altogether inappropriate to its occasion, I will naturally confabulate an explanation for it. A neurotic who is unreasonably angry with his wife because he unconsciously identifies her with his mother will not rest content with having no reason for his anger. Instead, he will make one up. Second, the reason he makes up will typically be one that is socially approved (Averill 1982).

If we are self-deceived in our emotional responses, or if some emotional state induces self-deception, this may not be merely a failure of self-knowledge. Many have thought that having certain emotions is an important part of what it is to be a virtuous moral agent. If this is true, then being systematically self-deceived about one's emotions will be a kind of moral failure as well.

10. Morality and Emotions

The complexity of emotions and their role in mental life is reflected in the unsettled place they have held in the history of ethics. Often they have been regarded as a dangerous threat to morality and rationality; in the romantic tradition, on the contrary, passions have been placed at

the center both of human individuality and of the moral life. This ambivalence is reflected in the close connections between the vocabulary of emotions and that of vices and virtues: envy, spite, jealousy, wrath, and pride are some names of emotions that also refer to common vices. Not coincidentally, some key virtues—love, compassion, benevolence, and sympathy—are also names of emotions. On the other hand, prudence, fortitude and temperance consist largely in the capacity to resist the motivational power of emotions (Williams 1973).

The view that emotions are irrational was eloquently defended by the Epicureans and Stoics. For this reason, these Hellenistic schools pose a particularly interesting challenge for the rest of the Western tradition. The Stoics adapted and made their own the Socratic hypothesis that virtue is nothing else than knowledge, adding the idea that emotions are essentially irrational beliefs. All vice and all suffering is then irrational, and the good life requires the rooting out of all desires and attachments. (As for the third of the major Hellenistic schools, the Skeptics, their view was that it is beliefs as such that were responsible for pain. Hence they recommend the repudiation of opinions of any sort.) All three schools stressed the overarching value of "ataraxia", the absence of disturbance in the soul. Philosophy can then be viewed as therapy, the function of which is to purge emotions from the soul (Nussbaum 1994). In support of this, the Stoics advanced the plausible claim that it is psychologically impossible to keep only nice emotions and give up the nasty ones. For all attachment and all desire, however worthy their objects might seem, entail the capacity for wrenching and destructive negative emotions. Erotic love can bring with it the murderous jealousy of a Medea, and even a commitment to the idea of justice may foster a capacity for destructive anger which is nothing but "furor brevis"— temporary insanity, in Seneca's arresting phrase. Moreover, the usual objects of our attachment are clearly unworthy of a free human being, since they diminish rather than enhance the autonomy of those that endure them.

The Hellenistic philosophers' observations about nasty emotions are not wholly compelling. Surely it is possible to see at least some emotions as having a positive contribution to make to our moral lives, and indeed we have seen that the verdict of cognitive science is that a capacity for normal emotion appears to be a sine qua non for the rational and moral conduct of life. Outside of this intimate but still somewhat mysterious link between the neurological capacity for emotion and rationality, the exact significance of emotions to the moral life will again depend on one's theory of the emotions. Inasmuch as emotions are partly constituted by desires, as some cognitivist theorists maintain, they will, as David Hume contended, help to motivate decent behavior and cement social life. If emotions are perceptions, and can be more or less epistemically adequate to their objects, then emotions may have a further contribution to make to the moral life, depending on what sort of adequacy and what sort of objects are involved. Max Scheler (1954) was the first to suggest that emotions are in effect perceptions of "tertiary qualities" that supervene in the (human) world on facts about social relations, pleasure and pain, and natural psychological facts, a suggestion recently elaborated by Tappolet (2000).

An important amendment to that view, voiced by D'Arms and Jacobson (2000a) is that emotions may have intrinsic criteria of appropriateness that diverge from, and indeed may conflict with, ethical norms. Appropriate emotions are not necessarily moral. Despite that, some emotions, specifically guilt, resentment, shame and anger, may have a special role in the establishment of a range of "response-dependent" values and norms that lie at the heart of the moral life (McDowell 1985; Gibbard 1990; D'Arms and Jacobson 1993). Kevin Mulligan (1998) advances a related view: though not direct perceptions of value, emotions can be said to justify axiological judgments. Emotions themselves are justified by perceptions and beliefs, and are said to be appropriate if and only if the axiological judgments they support are correct. If any of those variant views is right, then emotions have a crucial role to play in ethics in revealing to us something like moral facts. A consequence of this view is that art and literature, in educating our emotions, will have a substantial role in our moral development (Nussbaum 2001). On the other hand, there remains something "natural" about the emotions concerned, so that moral emotions are sometimes precisely those that resist the principles inculcated by so-called moral education. Hence the view that emotions apprehend real moral properties can explain our approval of those, like Huckleberry Finn when he ignored his "duty" to turn in Jim the slave, whose emotions drive them to act against their own "rational" conscience (Bennett 1974; McIntyre 1990; Arpaly 2002).

These suggestions about the relevance of emotion to ethics must be sharply distinguished from "Emotivism"—the claim that emotions can be used to elucidate the concept of evaluation itself. Such elucidation would only be plausible if we understood the explicans more clearly than the explicandum. But the variety and complexity of emotions makes them poor candidates for the role of explicans. The view in question must also be distinguished from the sociobiological hypothesis—which had early precursors in Mencius and Hume—that certain motives of benevolence are part of the genetic equipment which makes ethical behavior possible. That plausible view has attracted surprisingly energetic opposition in recent years. One objection against it is one directed against all forms of ethical naturalism: namely that the biological origins of a sentiment have no obvious bearing on its ethical value. Nevertheless, studies of social interaction among other primates strongly support the hypothesis that our moral intuitions have been shaped by evolution. And although analogies between primate behaviour and human morality are still resisted with desperate energy, it seems hard to deny that we can recognize a surprising range of familiar "moral emotions" in our nearest non-human cousins (de Waal 2006). Such naturalistic studies do promise to explain, at least, both the existence of some of our more benevolent emotions and attitudes, and the way in which their scope often seems so dangerously limited to the members of some restricted in-group.

The range of emotions to which the sociobiological hypothesis can be applied, however, is relatively narrow. That many complex emotions are to a certain extent socially constructed, is attested by the fact that what is considered normal emotion varies between epochs and cultures. Feminists have pointed out, in particular, that gender-specific norms on emotional experience and expression have been a standard means of maintaining inequality among the sexes in many cultures (de Beauvoir 1952). Viewed in this light, the emotions in general lack that property of

universalize ability which many philosophers have regarded as a sine qua non of the ethical (Blum 1980). On the other hand, the extent and significance of cultural differences are still a matter of considerable controversy (Pinker 2002). Any conclusions about the place of emotions in the moral life must therefore remain highly tentative.

MORAL SENTIMENTS

One's sentiments are the contents of one's sensed, or felt, experience—in contrast to the contents of simply one's thoughts. Whatever else they are, then, sentiments are affective phenomena. In common parlance, talk of sentiments refers alternatively to occurrent feelings, affective dispositions, and emotional attitudes taken toward people and objects. Moral sentiments, where the adjective *moral* is used in a descriptive sense, would then be some subset of these feelings, dispositions, and attitudes: those that are more or less intimately related to moral phenomena. Whether any of the moral sentiments thus understood are moral in a normative sense, that is, whether one morally may or should experience or express any of these sentiments in relevant circumstances, is a further question.

One problem that immediately confronts any philosophical account of moral sentiments is the question whether such affective phenomena in fact form a unified category. Affective responses vary widely with respect to their causes, phenomenology, duration, intentional objects (if any), and mode of expression, as well as their susceptibility to rational assessment and control. This variability is no less present in the case of that subset of affective phenomena related in some way to morals. Contrast, for example, rationally impervious and visceral disgust to resentment, a comparatively subdued attitude that arguably is a response fitting only to moral wrongs. Both disgust and resentment, however, are moral sentiments in the sense that people commonly experience these affective reactions in response to moral phenomena.

Just which phenomena one admits to the category of moral sentiments depends, of course, on the specific theory of the sentiments one accepts. Consideration of contemporary theories of the emotions is instructive here. Although such theories are quite varied, a common taxonomy distinguishes between cognitivist and noncognitivist theories of emotion. Cognitivist theories of emotion hold that emotions necessarily involve thoughts, beliefs, or judgments ascribing properties to their objects. Some cognitivists (Nussbaum 2001) identify emotions with evaluative judgments, for example, identifying fear with the evaluative judgment that the object of fear

somehow threatens one's welfare or identifying one's resenting another's action with the judgment that the other wrongs one in so acting. Sentiments, understood as essentially affective phenomena, apparently play at best a peripheral role on some such theories of emotion.

Non cognitive theories of emotion, in contrast, embrace a view of emotions as essentially felt experiences different in kind from thoughts beliefs or judgments. William James (1842-1910), famously identified emotions with the perception of bodily changes—or feelings—caused by external stimuli. Contemporary followers of James (Prinz 2004) have built on his emotional noncognitivism to avoid what they view as shortcomings of the cognitivist alternatives. Some noncognitivists object that emotions, unlike beliefs or judgments, are not properly subject to assessment in terms of truth or falsehood. Noncognitivists also object that cognitivist theories require that those subject to emotions possess a conceptual or propositional repertoire that obvious subjects of emotion—human infants and animals, for example—do not, in fact, possess. In response to such objections, some philosophers opt for mixed theories according to which emotions are some amalgam of cognition and affect (Oakley 1992).

Clarity about the correct theory of affective responses is a prerequisite for progress in the longstanding philosophical debate over the role of moral sentiments in moral agency. Philosophers have long debated the role of moral sentiments in, for example, (1) moral deliberation and judgment, (2) moral motivation, and (3) moral responsibility.

In examining the role of moral sentiments in moral deliberation and judgment, moral motivation, and moral responsibility, modern moral philosophers have been concerned especially with the role one should attribute to moral sensibility—generally understood as a capacity for experiencing, or disposition to experience, feelings, emotions, and attitudes that include guilt, resentment, respect, esteem, honor, pride, and shame—relative to the role of reason, understood as a cognitive capacity whose objects.

Sentiment analysis (also known as **opinion mining**) refers to the use of natural language processing, text analysis and computational linguistics to identify and extract subjective information in source materials. Sentiment analysis is widely applied to reviews and social media for a variety of applications, ranging from marketing to customer service.

Generally speaking, sentiment analysis aims to determine the attitude of a speaker or a writer with respect to some topic or the overall contextual polarity of a document. The attitude may be his or her judgment or evaluation (see appraisal theory), affective state (that is to say, the

emotional state of the author when writing), or the intended emotional communication (that is to say, the emotional effect the author wishes to have on the reader).

A basic task in sentiment analysis is classifying the *polarity* of a given text at the document, sentence, or feature/aspect level — whether the expressed opinion in a document, a sentence or an entity feature/aspect is positive, negative, or neutral. Advanced, "beyond polarity" sentiment classification looks, for instance, at emotional states such as "angry," "sad," and "happy."

Early work in that area includes Turney and Pang who applied different methods for detecting the polarity of product reviews and movie reviews respectively. This work is at the document level. One can also classify a document's polarity on a multi-way scale, which was attempted by Pang and Snyder among others: Bo and Lilian expanded the basic task of classifying a movie review as either positive or negative to predicting star ratings on either a 3 or a 4 star scale, while Snyder performed an in-depth analysis of restaurant reviews, predicting ratings for various aspects of the given restaurant, such as the food and atmosphere (on a five-star scale). Even though in most statistical classification methods, the neutral class is ignored under the assumption that neutral texts lie near the boundary of the binary classifier, several researchers suggest that, as in every polarity problem, three categories must be identified. Moreover it can be proven that specific classifiers such as the Max Entropy and the SVMs can benefit from the introduction of neutral class and improve the overall accuracy of the classification.

A different method for determining sentiment is the use of a scaling system whereby words commonly associated with having a negative, neutral or positive sentiment with them are given an associated number on a -10 to +10 scale (most negative up to most positive) and when a piece of unstructured text is analyzed using natural language processing, the subsequent concepts are analyzed for an understanding of these words and how they relate to the concept. Each concept is then given a score based on the way sentiment words relate to the concept, and their associated score. This allows movement to a more sophisticated understanding of sentiment based on an 11 point scale. Alternatively, texts can be given a positive and negative sentiment strength score if the goal is to determine the sentiment in a text rather than the overall polarity and strength of the text.

Sociological:

Society and culture,

The word culture or society. In fact, they're so commonly used that most people tend to think they mean the same thing. However, when it comes to using them in official anthropological terms, this is not quite true.

In today's lesson, we'll take a look at these two words and try to nail down their proper use. As we do this, I must admit it's gonna seem like we're sort of splitting hairs when it comes to the

differences. However, just in case you're ever stuck sitting at a table with an anthropologist, today's lesson will come in handy.

The society in which we live determines everything from the food we eat to the choices we make. The word *society* comes from the Latin root *socius*, meaning "companion" or "being with others." A society consists of people who share a territory, who interact with each other, and who share a culture. Some societies are, in fact, groups of people united by friendship or common interests. Our respective societies teach us how to behave, what to believe, and how we'll be punished if we don't follow the laws or customs in place.

Sociologists study the way people learn about their own society's cultures and how they discover their place within those cultures. They also examine the ways in which people from differing cultures interact and sometimes clash—and how mutual understanding and respect might be reached.

Culture

Culture is everything made, learned, or shared by the members of a society, including values, beliefs, behaviors, and material objects.

Culture is learned, and it varies tremendously from society to society. We begin learning our culture from the moment we're born, as the people who raise us encourage certain behaviors and teach their version of right and wrong. Although cultures vary dramatically, they all consist of two parts: **material culture** and **nonmaterial culture**.

Material Culture

Material culture consists of the concrete, visible parts of a culture, such as food, clothing, cars, weapons, and buildings. Aspects of material culture differ from society to society. Here are a few features of modern material culture in the United States:

- Soy lattes
- CD burners
- Running shoes
- iPods
- Lifestyle magazines
- Organic vegetables

- Sport utility vehicles

Example: *One common form of material culture is jewelry that indicates a person's status as married. In American culture, people wear a metal band on the ring finger of the left hand to show that they are married. In smaller, nonindustrialized societies, everyone knows everyone else, so no such sign is needed. In certain parts of India, women wear a necklace to indicate that they are married. In Northern Europe, married people wear wedding bands on the right hand.*

Nonmaterial Culture

Nonmaterial culture consists of the intangible aspects of a culture, such as values and beliefs. Nonmaterial culture consists of concepts and ideas that shape who we are and make us different from members of other societies.

- A **value** is a culturally approved concept about what is right or wrong, desirable or undesirable. Values are a culture's principles about how things should be and differ greatly from society to society.

Example: *In the United States today, many women value thinness as a standard of beauty. In Ghana, however, most people would consider American fashion models sickly and undesirable. In that culture and others, robustness is valued over skinniness as a marker of beauty.*

Cult of the Car

Automobile ownership clearly illustrates the American value of material acquisition. Americans love cars, and society is constructed to accommodate them. We have a system of interstate roadways, convenient gas stations, and many car dealerships. Businesses consider where patrons will park, and architects design homes with spaces for one or more cars. A society that values the environment more than the material acquisition might refuse to build roadways because of the damage they might do to the local wildlife.

- **Beliefs** are specific ideas that people feel to be true. Values support beliefs.

Example: *Americans believe in freedom of speech, and they believe they should be able to say whatever they want without fear of reprisal from the government. Many Americans value*

freedom as the right of all people and believe that people should be left to pursue their lives the way they want with minimal interference from the government.

To get the ball rolling, we'll start with culture. According to many anthropologists, **culture** can be defined as the set of learned behaviors and beliefs that characterize a people group. Putting it simply, it's what makes a population into a people group. It's their beliefs, attitudes, and ideals. From their diet, to their religion, to their family structure, to their jobs, to even their entertainment, it's what makes them them.

Adding to this definition, most anthropologists would agree that people sort of define or label themselves through their culture. Think about it. If you go to a party, what usually fills the conversation? It's not deep emotional stuff. Instead, it's things like where people work, what they do in their free time, and maybe even where they choose to worship. Whether we give clues about our national culture of say, being American, or our subculture of being Italian-American, we're still discussing the beliefs and attitudes that make us us.

While at the party, we'll also exhibit our culture. For instance, for those of us who grew up in the Westernized world, we'll probably not remove our shoes at a party. Even though it'd be more comfortable to kick them off and walk around in our socks, we probably won't. However, if the party took place at my aunt's home, who just so happens to be Korean, we would all remove our shoes. You see, in Korean culture it's considered disrespectful and dirty to wear outdoor shoes inside. Although my aunt considers herself part of the national culture of America, she still holds to many parts of her homeland's national culture as well.

Now notice, when talking about culture, we're talking about things that are sort of tangible, almost like objects. They're our language, our technology, and our institutions - things like our churches, our schools, or even our houses. However, culture is also intangible; it's our values and our behaviors. Using an anthropological term, our culture includes our norms, the standards or rules about acceptable behavior. And with this definition finished, we'll move onto our other term, society.

Society

According to sociologists, a **society** is a group of people with common territory, interaction, and culture. **Social groups** consist of two or more people who interact and identify with one another.

- **Territory:** Most countries have formal boundaries and territory that the world recognizes as theirs. However, a society's boundaries don't have to be geopolitical borders, such as the one between the United States and Canada. Instead, members of a society, as well as nonmembers, must recognize particular land as belonging to that society.

Example: *The society of the Yanomamo has fluid but definable land boundaries. Located in a South American rain forest, Yanamamo territory extends along the border of Brazil and Venezuela. While outsiders would have a hard time determining where Yanomamo land begins and ends, the Yanomamo and their neighbors have no trouble discerning which land is theirs and which is not.*

- **Interaction:** Members of a society must come in contact with one another. If a group of people within a country has no regular contact with another group, those groups cannot be considered part of the same society. Geographic distance and language barriers can separate societies within a country.

  Example: *Although Islam was practiced in both parts of the country, the residents of East Pakistan spoke Bengali, while the residents of West Pakistan spoke Urdu. Geographic distance, language differences, and other factors proved insurmountable. In 1971, the nation split into two countries, with West Pakistan assuming the name Pakistan and East Pakistan becomingBangladesh. Within each newly formed society, people had a common culture, history, and language, and distance was no longer a factor.*

- **Culture:** People of the same society share aspects of their culture, such as language or beliefs. **Culture** refers to the language, values, beliefs, behavior, and material objects that constitute a people's way of life. It is a defining element of society.

  Example: *Some features of American culture are the English language, a democratic system of government, cuisine (such as hamburgers and corn on the cob), and a belief in individualism and freedom.*

Pluralism

The United States is a society composed of many groups of people, some of whom originally belonged to other societies. Sociologists consider the United States a **pluralistic society**, meaning it is built of many groups. As societies modernize, they attract people from countries where there may be economic hardship, political unrest, or religious persecution. Since the

industrialized countries of the West were the first to modernize, these countries tend to be more pluralistic than countries in other parts of the world.

Many people came to the United States between the mid-nineteenth and mid-twentieth century's. Fleeing poverty and religious persecution, these immigrants arrived in waves from Europe and Asia and helped create the pluralism that makes the United States unique.

Pluralism in the Neighborhood

Both cities and regions reflect pluralism in the United States. Most major American cities have areas in which people from particular backgrounds are concentrated, such as Little Italy in New York, Chinatown in San Francisco, and Little Havana in Miami. Regionally, people of Mexican descent tend to live in those states that border Mexico. Individuals of Cuban descent are concentrated in Florida. Spanish-speaking people from other Caribbean islands, such as Puerto Rico and the Dominican Republic, are more likely to live in the Northeast.

Assimilation

Some practices that are common in other societies will inevitably offend or contradict the values and beliefs of the new society. Groups seeking to become part of a pluralistic society often have to give up many of their original traditions in order to fit in—a process known as **assimilation**.

Example: *When people arrive in the United States from other countries, they most likely speak a foreign language. As they live here, they generally learn at least some English, and many become fluent. Their children are most likely bilingual, speaking English as well as the language of their parents. By the third generation, the language originally spoken by their grandparents is often lost.*

In pluralistic societies, groups do not have to give up all of their former beliefs and practices. Many groups within a pluralistic society retain their ethnic traditions.

Example: *Although Chinese immigrants started arriving in the United States 150 years ago, Chinese-American communities still follow some traditions, such as celebrating the Lunar New Year.*

Melting Pot?

The United States is commonly referred to as a **melting pot**, a society in which people from different societies blend together into a single mass. Some sociologists prefer the term "multicultural," pointing out that even if a group has been in this country for many generations, they probably still retain some of their original heritage. The term "**multiculturalism**" recognizes the original heritages of millions of Americans, noting that Americans who are originally from other societies do not necessarily have to lose their individual markers by melting into the mainstream.

Equality

In a truly pluralistic society, no one group is officially considered more influential than another. In keeping with this belief, the United States does not, for example, put a legal quota on how many Italian Americans can vote in national elections, how many African Americans may run for public office, or how many Vietnamese Americans can live on a certain street. However, powerful informal mechanisms, such as prejudice and discrimination, work to keep many groups out of the political process or out of certain neighborhoods.

The society we live in did not spring up overnight; human societies have evolved slowly over many millennia. However, throughout history, technological developments have sometimes brought about dramatic change that has propelled human society into its next age.

Hunting and gathering societies survive by hunting game and gathering edible plants. Until about 12,000 years ago, all societies were hunting and gathering societies.

There are five basic characteristics of hunting and gathering societies:

1. The primary institution is the family, which decides how food is to be shared and how children are to be socialized, and which provides for the protection of its members.
2. They tend to be small, with fewer than fifty members.
3. They tend to be nomadic, moving to new areas when the current food supply in a given area has been exhausted.
4. Members display a high level of interdependence.
5. Labor division is based on sex: men hunt, and women gather.

The **first social revolution**—the domestication of plants and animals—led to the birth of the horticultural and pastoral societies.

Twilight of the Hunter-Gatherers

Hunting and gathering societies are slowly disappearing, as the encroachment of civilization destroys the land they depend on. The Pygmies in Africa are one of the few remaining such societies.

Horticultural Societies

In a **horticultural society**, hand tools are used to tend crops. The first horticultural societies sprang up about 10,000–12,000 years ago in the most fertile areas of the Middle East, Latin America, and Asia. The tools they used were simple: sticks or hoe-like instruments used to punch holes in the ground so that crops could be planted. With the advent of horticultural machinery, people no longer had to depend on the gathering of edible plants—they could now grow their own food. They no longer had to leave an area when the food supply was exhausted, as they could stay in one place until the soil was depleted.

A **pastoral society** relies on the domestication and breeding of animals for food. Some geographic regions, such as the desert regions of North Africa, cannot support crops, so these societies learned how to domesticate and breed animals. The members of a pastoral society must move only when the grazing land ceases to be usable. Many pastoral societies still exist in Africa, Latin America, and parts of Asia.

Job Specialization

As techniques for raising crops and domesticating and breeding animals improved, societies began to produce more food than they needed. Societies also became larger and more permanently rooted to one location. For the first time in human history, not everyone was engaged in the gathering or production of food. As a result, job specialization emerged. While some people farmed or raised animals, others produced crafts, became involved in trade, or provided such goods as farming tools or clothing.

Agricultural Societies

The invention of the plow during the horticultural and pastoral societies is considered the **second social revolution**, and it led to the establishment of agricultural societies approximately five thousand to six thousand years ago. Members of an **agricultural** or**agrarian society** tend crops with an animal harnessed to a plow. The use of animals to pull a plow eventually led to the creation of cities and formed the basic structure of most modern societies.

The development of agricultural societies followed this general sequence:

- Animals are used to pull plows.
- Larger areas of land can then be cultivated.
- As the soil is aerated during plowing, it yields more crops for longer periods of time.
- Productivity increases, and as long as there is plenty of food, people do not have to move.
- Towns form, and then cities.
- As crop yields are high, it is no longer necessary for every member of the society to engage in some form of farming, so some people begin developing other skills. Job specialization increases.
- Fewer people are directly involved with the production of food, and the economy becomes more complex.

Around this same time, the wheel was invented, along with writing, numbers, and what we would today call the arts. However, the invention of the steam engine—**the third social revolution**—was what took humans from agricultural to industrial society.

Roots of Gender Inequality

As people moved toward domesticating animals and using them to do work, males tended to dominate more of the workforce, since physical strength was necessary to control animals. By the time societies became agricultural, males all but dominated the production of food. Since then, more prestige has been accorded to traditionally male jobs than to traditionally female jobs, and hence, to males more than to females.

Industrial Societies

An **industrial society** uses advanced sources of energy, rather than humans and animals, to run large machinery. Industrialization began in the mid-1700s, when the steam engine was first used in Great Britain as a means of running other machines. By the twentieth century, industrialized societies had changed dramatically:

- People and goods traversed much longer distances because of innovations in transportation, such as the train and the steamship.
- Rural areas lost population because more and more people were engaged in factory work and had to move to the cities.
- Fewer people were needed in agriculture, and societies became**urbanized**, which means that the majority of the population lived within commuting distance of a major city.
- Suburbs grew up around cities to provide city-dwellers with alternative places to live.

The twentieth century also saw the invention of the automobile and the harnessing of electricity, leading to faster and easier transportation, better food storage, mass communication, and much more. Occupational specialization became even more pronounced, and a person's vocation became more of an identifier than his or her family ties, as was common in nonindustrial societies.

Gemeinschaft and *Gesellschaft*

Sociologist **Ferdinand Tönnies** divided societies into two large categories: *Gemeinschaft* societies and *Gesellschaft* societies.*Gemeinschaft* societies consist primarily of villages in which everyone knows everyone else. Relationships are lifelong and based on kinship. A *Gesellschaft* society is modernized. People have little in common with one another, and relationships are short term and based on self-interest, with little concern for the well-being of others.

Postindustrial Societies

The Industrial Revolution transformed Western societies in many unexpected ways. All the machines and inventions for producing and transporting goods reduced the need for human labor so much that the economy transformed again, from an industrial to a postindustrial economy.

A **postindustrial society**, the type of society that has developed over the past few decades, features an economy based on services and technology, not production. There are three major characteristics of a postindustrial economy:

1. **Focus on ideas:** Tangible goods no longer drive the economy.
2. **Need for higher education:** Factory work does not require advanced training, and the new focus on information and technology means that people must pursue greater education.
3. **Shift in workplace from cities to homes:** New communications technology allows work to be performed from a variety of locations.

Mass Society

As industrialized societies grow and develop, they become increasingly different from their less industrialized counterparts. As they become larger, they evolve into large, impersonal mass societies. In a **mass society**, individual achievement is valued over kinship ties, and people often feel isolated from one another. Personal incomes are generally high, and there is great diversity among people.

A human **society** is a group of people involved in persistent social interaction, or a large social grouping sharing the same geographical or social territory, typically subject to the same political authority and dominant cultural expectations. Human societies are characterized by patterns of relationships (social relations) between individuals who share a distinctive culture and institutions; a given society may be described as the sum total of such relationships among its constituent members. In the social sciences, a larger society often evinces stratification or dominance patterns in subgroups.

Insofar as it is collaborative, a society can enable its members to benefit in ways that would not otherwise be possible on an individual basis; both individual and social (common) benefits can thus be distinguished, or in many cases found to overlap.

A society can also consist of like-minded people governed by their own norms and values within a dominant, larger society. This is sometimes referred to as a subculture, a term used extensively within criminology.

More broadly, and especially within structuralist thought, a society may be illustrated as an economic, social, industrial or cultural infrastructure, made up of, yet distinct from, a varied collection of individuals. In this regard society can mean the objective relationships people have with the material world and with other people, rather than "other people" beyond the individual and their familiar social environment.

Unlike culture, which encompasses the tangible and intangible things of a people group, **society** is defined as a group of people who occupy a particular territory and who share a culture. Stating it simply, we would say that a society is a people of a culture. Whereas culture is what makes them, society is, for lack of a better way of saying it, the actual them. It's the people living and interacting with one another in order to create a culture. It's people bonded together by their shared beliefs, attitudes, languages, and institutions; in other words, by their culture.

In saying all this, it's important to note that people can belong to the same society, while also differing in there, shall we say, layers of culture. For instance, a Hasidic Jew living in New York City and a cowboy from Montana both are part of American society and American culture. However, one identifies himself with the subculture of being a New Yorker and a Jewish American, while the other may have never stepped foot in the Big Apple.

Social acceptance and recognition

Acceptance in human psychology is a person's assent to the reality of a situation, recognizing a process or condition (often a negative or uncomfortable situation) without attempting to change it, protest. The concept is close in meaning to 'acquiescence', derived from the Latin 'acquiēscere' (to find rest in).

The term *acceptance* is a noun with three different meanings.

The first is the act of taking or receiving something offered. For example, if someone is giving you a gift and you receive it, then you have accepted the gift; therefore, having acceptance.

Another definition of acceptance has to do with positive welcome and belonging; favor and endorsement. For instance, a person could like someone and have acceptance for them due to their approval of that person.

The third description of acceptance is that it can be an act of believing or assenting.

Acceptance - "An express act or implication by conduct that manifests assent to the terms of an offer in a manner invited or required by the offer so that a binding contract is formed. The exercise of power conferred by an offer by performance of some act. The act of a person to whom something is offered of tendered by another, whereby the offered demonstrates through an act invited by the offer an intention of retaining the subject of the offer." (Chirelstein, 2001)

This definition overlaps with the definition of the quality known as *toleration*. Acceptance and tolerance are not synonyms.

Eckhart Tolle (The Power of Now, etc.) defines acceptance as a "this is it" response to anything occurring in any moment of life. There, strength, peace and serenity are available when one stops struggling to resist, or hang on tightly to what is so in any given moment. What do I have right now? Now what am I experiencing? The point is, can one be sad when one is sad, afraid when afraid, silly when silly, happy when happy, judgmental when judgmental, over thinking when over thinking, serene when serene, etc.

Self acceptance

Self acceptance is love and happy with whom you are *now*. It's an agreement with yourself to appreciate, validate, accept, and support who you are at this moment.

For example, think of acceptance of yourself like being okay with your house right now. One day you might want a bigger house or you have this dream house in your mind, but there are advantages to your smaller home now. So you can be happy with the house you have now and still dream of your bigger house as a reality later.

Self acceptance leads to a new life with new possibilities that did not exist before because you were caught up in the struggle against reality. People have trouble accepting themselves because of a lack of motivation. Some have the misconception that if you are happy with yourself you won't change things about yourself. This isn't true; you don't have to be unhappy with yourself to know and actively change things you don't like.

Social acceptance affects people of all sorts and includes children, teenagers, and adults. Social acceptance could be defined as the fact that most people, in order to fit in with others, attempt to

look and act like them. Or sometimes it is the ability to accept or to tolerate differences and diversity in other people or groups of people.

Children and teenagers tend to do a lot of things to try to be accepted among friends, a phenomenon known as peer pressure. Peer pressure sometimes determines how they do their hair and what clothes they wear. A desire to be accepted by those whose friendship the child or teen values also determines the child's openness towards smoking, drinking, swearing, and much more.

Adults also exhibit certain behaviors (and avoid others) out of the desire for the acceptance and approval of their friends. To be one of the groups, they might do some of the same things as teens and children (e.g. drinking or taking other drugs).

When it comes to mental disabilities, social acceptance plays a big role in recovery. Social acceptance is important because many people don't understand mental illness so they don't know how to embrace their friends or other people who have a disease, leaving these people with feelings of not being accepted in groups of friends.

Leadership Social integration and cohesiveness.

Cohesion can be more specifically defined as the tendency for a group to be in unity while working towards a goal or to satisfy the emotional needs of its members. This definition includes important aspects of cohesiveness, including its multidimensionality, dynamic nature, instrumental basis, and emotional dimension. Its multidimensionality refers to how cohesion is based on many factors. Its dynamic nature refers to how it gradually changes over time in its strength and form from the time a group is formed to when a group is disbanded. Its instrumental basis refers to how people cohere for some purpose, whether it is for a task or for social reasons. Its emotional dimension refers to how cohesion is pleasing to its group members. This definition can be generalized to most groups characterized by the group definition discussed above. These groups include sports teams, work groups, military units, fraternity groups, and social groups. However, it is important to note that other researchers claim that cohesion cannot be generalized across many groups

Social Integration

Social integration is a highly desirable outcome that reflects the existence of social cohesion, a strong institutional foundation and a culture of acceptance. Societies are better off if they promote social integration through inclusive policies that reduce economic inequality and poverty, and promote sustainable and equitable development. The concept of development used

in this paper is best defined by Amartya Sen (1999, p.36), "the process of expanding human freedoms," i.e., freedoms associated with avoiding deprivations, being literate, enjoying political participation, uncensored speech and so on. Because of its qualitative nature, social integration can be peroxide by using variables that capture and measure how much social integration exists in a community at any given time. Identifying these indicators can be tricky and it may entail using quantitative and qualitative data. Many development practitioners and policy makers center attention on the creation of economic opportunities as the material basis for social integration. In this way, there is often a tendency to underscore economic goals and make them uniquely critical.

In developed countries, the goals of stable, productive and decent employment and poverty elimination have been firmly grounded in social contracts and have therefore influenced labor and welfare policies in meaningful ways. European social democracies have been engaged in attaining socio-economic goals that bring stability and social cohesion both within each individual nation and within the European Union. In contrast, the developing world has faced persistent obstacles in its efforts to attain these twin goals despite its recent economic expansion. In Latin America, average growth rates of three per cent in the last fifteen years have not contributed to a substantial increase in productive employment or the substantial reduction of poverty.

What is Social Integration

Social integration is the process of creating unity, inclusion and participation at all levels of society within the diversity of personal attributes so that every person is free to be the person she wants to be. Personal attributes include socio-economic class, age, gender - sexual preference and expression, political ideas, ethnicity and cultural traits, religion, citizenship (national origin) and geographical region of origin and so on. Social integration enables persons, regardless of their attributes, to enjoy equal opportunities, rights and services that are available to the so-called mainstream group. Social integration can be considered to be antonym to social exclusion, which is broader than poverty and deprivation, and which neglects people's rights.

Social exclusion is produced by systematic and institutional discrimination and other forms of rejection that leave out persons or groups from the mainstream system of economic, social, and political relationships. Access to these relationships enables the privileged to be active participants in society benefiting from cultural, economic, social and political exchanges. Excluded persons and groups do not partake in the benefits of social capital with identical sense of belonging. And in worse situations, the intensity of rejection and intolerance can create emotional and physical harm to excluded persons. To protect themselves, victims of discrimination and intolerance form smaller and tightly connected networks of solidarity and support among themselves and their allies in safe places.

The elimination of social exclusion through programs and actions that integrate vulnerable persons into mainstream society is a required condition for the creation of economic opportunities for these populations. Evidence shows that in many countries failure to reduce marginalization and vulnerability of populations at risk can be explained by policies that considered economic goals as key determinants and social aspects as secondary elements. Cultural sensitive programs, however, that have built bridges and developed capabilities to support people in need have been effective in reducing poverty and building stronger communities.

In a nutshell, social integration:

- eradicates stereotypes and ("mainstream") privilege,
- · increases the voice of persons or groups that are vulnerable and have been marginalized,
- · creates opportunities for their political participation,
- · creates stable and decent job opportunities for traditionally underrepresented persons and groups, and
- · promotes the development of capabilities among vulnerable populations so that they can overcome poverty and deprivation.