1.1 The "supporting" sciences of FB

Systemic foundation

Over the years, sports training has been influenced by the mechanical approach of human beings.

The Cartesian point of view is the dominant conceptual structure that understands living organisms in a practical manner as machines made up of different parts, while continuing to use training methods based on the reduction of the organism into smaller elements (Torrents, 2005, p. 18).

Mechanism is the doctrine that establishes that every natural reality has a structure comparable to that of a machine.

Since Descartes, science has been concerned with generating knowledge and studying the behavior of phenomena by dividing them into parts. This fragmentation moved into the academic world, creating fields of study where each deals with only a portion of the facts. This is the origin of what we know today as physiology, biochemistry, anatomy, etc.: disciplines that specialize in the study of specific phenomena.

The new disciplines or theoretical approaches no longer study phenomena in a decontextualized manner or reduce them into parts.

The theory of dynamic systems provides new tools and concepts, which can be applied in the world of sports training and research.

In sports science, the theory has been applied to coordination and motor learning. Research in motor skills is being shaped by this new approach, which provides the tools to understand and interpret how movements are organized (Torrents, 2005).

In order to understand the subject, it is first necessary to understand what a system is. A system can be defined as:

> "a set of two or more interrelated elements working towards a common goal. The General Systems Theory, described by Ludwig Von Bertalanffy (1976), extended systemic thinking to all fields of science. Although Bertalanffy was a biologist who emphasized the need to formulate a mathematical theory, the general systems theory is especially philosophical" (Torrents, 2005).

A system is seen as an entity comprised of elements that are the building blocks of said system, and the relationships that are formed between them and their environment is the object of analysis. In this case, system and environment are viewed as a set of analyses, based on the interactions produced between the two.

The rationale behind the theory raises the question of the necessity of studying not only the isolated parts and processes, but also solving the crucial problems found in the organization and the order that unifies them; as a result of the dynamic interaction between these parts and what makes them behave differently when they are studied in isolation or as part of the whole. An element (part) responds differently when studied in isolation than when observed within a whole.

Scientific approaches that begin to interpret Systemic Theories

Biology began to question the reductionism that characterized it for years, which had divided organisms into parts to study them. Together with the ecological systemic approach, the whole and the holism begin to gain prominence. The properties of each system become elements of a whole that constitutes them, and the interaction between these is the object of study.

From the perspective of psychology, for example, the mechanical approach and its known connection to the man-machine concept was modified with the arrival of Gestalt as a new theoretical approach.

Gestalt, together with Eherenfileds, argues that the "whole" is more than the sum of its parts. The conditions in one place will influence what happens in another and vice versa. A part of the whole cannot be reduced in order to be understood in isolation from the totality of which it forms a part.

Quantum physics also takes into account the importance of interconnections. Capra (1985) states:

> "The Cartesian perspective of the world is mechanistic; on the other hand, the vision of the world that emerges from modern physics is characterized by being organic, holistic and ecological. It could be called a systems approach, in the sense of general systems theory. The world can no longer be perceived as a machine made up of a large number of objects, but instead thought of as an indivisible and dynamic unit, whose elements are closely linked and can only be understood as models of a cosmic process". (Torrents, 2005).

Principles of Complexity Theory

Complex thinking takes center stage in the 21st century, starting with the emergence of new theoretical approaches that provide a foundation for sports training and change the paradigm of what is understood by subject, society, culture, science, etc.

Traditional or classical thinking is characterized by determinism, analytical reductionism, materialism and linearity. This traditional approach is strongly questioned by the development of contemporary sciences. As a result, complexity theories arise that are governed by the following principles.

- Uncertainty: complex behavior cannot be predicted in the long term. On the one hand, this is because they depend on a changing context and, on the other, because they are made up of elements whose behavior cannot be predicted. Sports generally take place in uncertain contexts where predictability is only an illusion.
- Totality: Gestalt psychology has shown that structured sets cannot be juxtaposed. Structuralism understands behavior as something universal and understands the whole as the sum of its parts.
- Interdependence: the functioning of each element of the system depends on the others. Each modification to an element affects the system as a whole. The elements are not isolated.
- Spontaneous emergence: global entities (complex systems) arise from the relationships and interactions between isolated elements, which are different from the simple sum of the elements that comprise them.

In physical activity and sports, there are complex systems: the groups that comprise them (clubs, federations, associations, etc.), the people and athletes who practice the activity, and their interaction with opponents, coaches and the environment.

Complexity

It is something formed by many parts which constitute a complex whole. For complexity to exist, it is necessary for two or more elements to be united or connected, and difficult to separate. A characteristic of the elements is that they are different, and at the same time, connected. The fact that the parts of something are different implies variety and promotes disorder, chaos and entropy. That they are united infers that interdependence corresponds with redundant behavior. It can be said that complexity is a balance between order and disorder.

Human beings are complex, and are comprised of different elements (systems-structures). Each of these elements has several different

functions. If they are separated, it is disorder; but united, they fulfill the function of living.

Linear and nonlinear dynamic systems

Linear dynamics are characterized by simple systems, meaning their behavior can be predicted. For example, in Newtonian physics (F=m x a) the force (f) can be calculated from the mass of the object (m) and its acceleration (a). By not changing the mass, if the force is doubled, then acceleration is as well. In these cases there is proportionality.

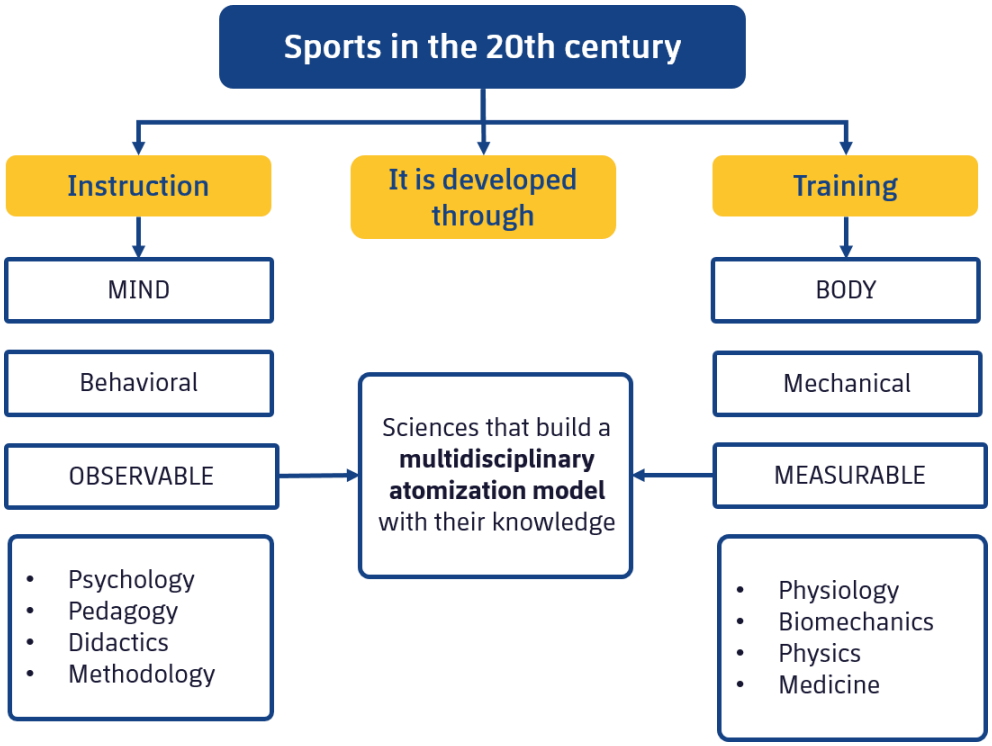
There is no proportionality in nonlinear systems. For example, if the training load of an athlete is doubled, this does not mean that he/she will perform better; in fact, the opposite may occur. The lack of proportionality makes nonlinear systems more unpredictable, leading to greater complications in the methodological approaches as a result of the measurements.

Dynamic Systems Theory and Sports Training

In contrast to the classic paradigm, which understands the subject as a machine, Dynamic Systems Theory (DST) emerges as a method of study. This contribution to the training sciences is based on the study of motor learning and control. Nowadays, more and more coaches are delving into this subject, with the intention of creating training proposals according to the contexts in which they take place.

In Dynamic Systems Theory (DST), the whole is understood as something more than the sum of its parts. Brought into the world of sports training, this creates methodological proposals where the exercise is contextualized and closely linked to the reality where it occurs. The physical abilities of an athlete coexist all at the same time and do not function separately from one another. When constantly faced with changing contexts, the skills to be acquired should follow a pattern of permanent change.

Figure 1: Sports in the 20th century



Source: Seirul·lo Vargas 2012.

Contributions from the new perspectives:

- Global vision: allows for understanding motor skills and related phenomena (decision-making, creativity, learning processes). The elements that comprise a system are not isolated processes, but instead share common mechanisms.
- Universality and cross-cutting: the two principles are valid for understanding the functioning of the human organism, the neuromuscular system, the relationships between coach and athlete, etc.
- Establishes coordination: this is the main aspect of the functioning and behavior of the human system and its relationship with the environment.
- Commitment to the understanding of phenomena: it does not lead to the application of formulas but to solutions based on multiple situations.
- We speak of constraints instead of causes: it is not about cause and effect. Mono-causality does not occur in living beings because they are influenced by changing factors (internal and contextual). Since no two people are the same, each behavior changes in quantity and quality.

- Individual differences: there are no two identical answers, as differences are manifested when faced with the same type of situations.
- The context: faced with different contexts, the same behaviors cannot be expressed. New coordinated responses emerge in each context. Each change of exercise is a change of coordination-perception-intervention.

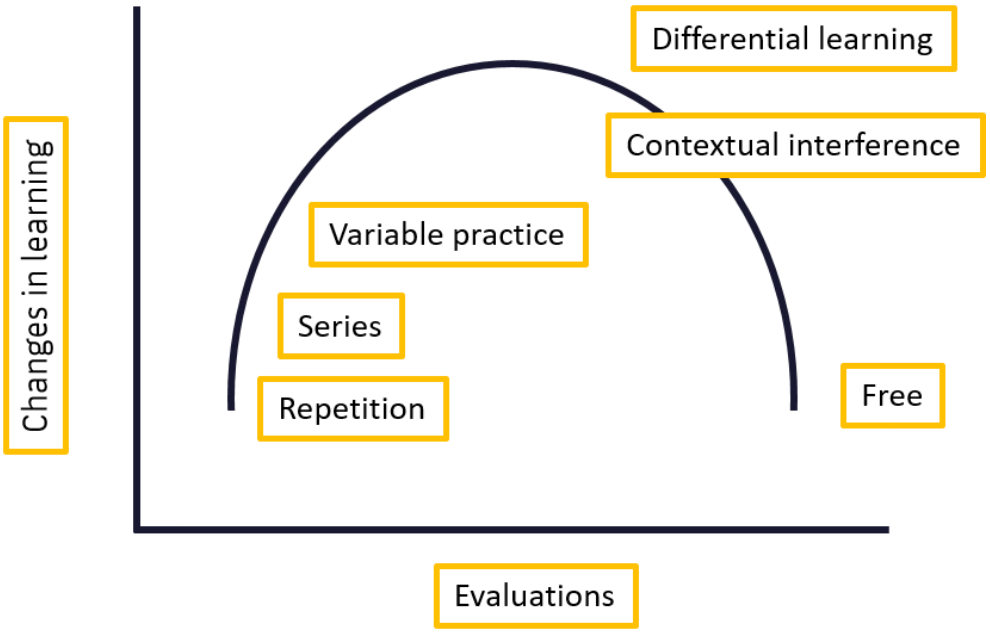
In nonlinear relationships, any change within a parameter creates radical changes in the responses or behavior of a system. The variability of practice is therefore discussed as an alternative proposal to the repetition model.

Repetition model: linear, proportional. It is based on the belief that more of something is always better.

Variability: will be present throughout the practice.

Variable practice is related to a high level of progress in learning. However, it is argued that differential learning has led to the greatest disruptions and therefore the highest levels of learning.

Figure 2: learning progress



Source: Schollhorn, Mayer-Kress, Newell, Michelbrink, 2009.

Differential learning recommends random variations between exercises in order to achieve the full range of fluctuations and provide potential solutions to the movements. It emphasizes paying attention to the process of adaptation rather than the implementation itself.

Schollhorn et al. (2009) argue that an athlete must go through permanently changing situations in order to create mechanisms to adapt to change. Differential training focuses on adaptation to change (a feature of dynamic systems, therefore of human beings and sports contexts). The varied training focuses on enriching motor skills frameworks, as previously practiced by F. Seirul·lo Vargas in 1985 with his athletes.

Adaptations are forms of evolution, and this is where the term self-organization comes in; precisely in reference to the ability of a system to evolve. Systems tend to carry out internal arrangement as a result of synergies.

Motor skills exercises and variation

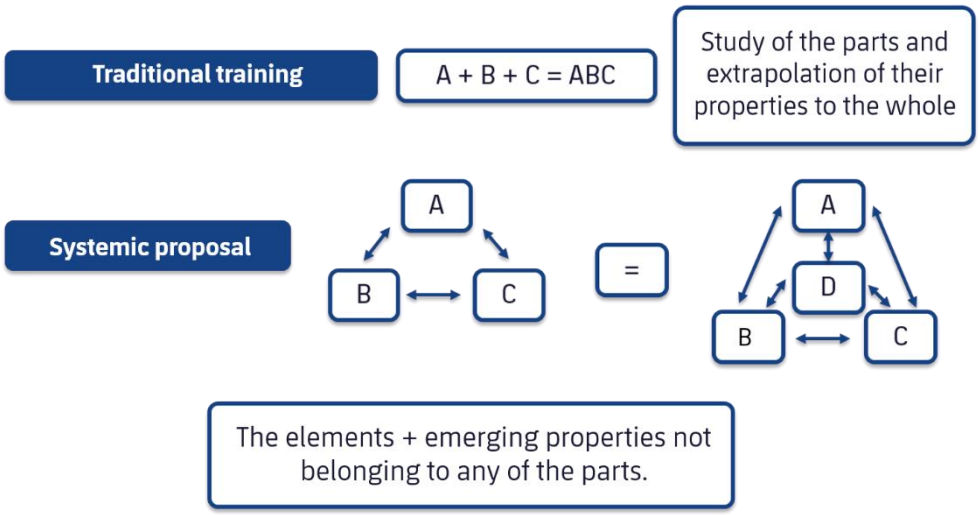
Bernstein makes an interesting contribution where he argues that in order to be considered an expert in handling an exercise, one must master every aspect and possible scenarios. During training, potential solutions should not be sought, instead creating contexts where the solution is discovered through exploration. Practice is a repetition without repeating, that is, the use of variability.

The use of creativity for performance optimization is therefore encouraged. The progress made in learning is not produced by mastering the technique, but by the invention of new configurations of movement. The emergence of new solutions is a constant that should be pursued in sports training.

Based on the contributions of the new theoretical approaches, the athlete must be interpreted as a complex and unpredictable being; for whom training scenarios must be created that are as close as possible to his/her own context. Such context is never the same, because we never experience the same moment twice. Repetitiveness only helps the athlete adapt to respond in a certain way. We train the same stimulus hundreds of times, which must be applied in a constantly changing context. With this in mind, we train to be able to respond and analyze the situation with limited resources.

> "The athlete is thus seen as an irreducible whole, in which all of his organized elements will exhibit characteristics that are absent in their parts. With this new paradigm, there is a change in the manner of understanding the individual, in this case an athlete, as an indivisible, interconnected, dynamic and relativistic reality. (Capra, 1998).

Figure 3: traditional training- systemic approach.



Source. Pol (2011).

Coordination and complexity

Motor coordination comes from the relationship between the elements that are part of a system. This functions as a set of actions that occur in order for the system to work as a unit. Each element performs a different action separately, but when united as a whole, this results in the synergy of movement and therefore coordination. In this regard, the human organism is considered to be an excellent example of a complex system in continuous adaptation. Each element (system) within it (for example, the cardiovascular or respiratory system) coordinates with the others in order to sustain life.

Bernstein is one of the theorists who has developed and applied the Dynamic Systems Theory (DST) in motor learning. The author tries to understand the complexity of coordination actions and to create control patterns to reduce the variables in the study. Since coordination is a variable with a high degree of complexity, the author tried to reduce the levels of difficulty for subsequent training and analysis.

Bernstein uses this as a reference in order to understand movement and the motor system, along with feedback as the primary internal correction tool for processing information during movement.

Complex systems, like sports, are highly unpredictable. Dynamic Systems Theory emerges in order to study and provide the tools to understand these structures and behaviors that living beings display when interacting with their environment.

Practical implications for training

Athletes:

- The athlete is a nonlinear dynamic system that is constantly interacting with the environment and the exercise, where learning emerges for the purpose of self-organization.
- One must seek to understand the environment and adapt in order to achieve increasingly effective and efficient motor solutions.
- The athlete possesses an intrinsic dynamic, as a result of genetic history, his/her experiences and background, etc. These elements make the athlete best suited to perform in certain environments.
- He is influenced by the specific context.
- Their performance levels are not stable. The same levels are not maintained for long periods of time, but decrease or vary at certain times in an unpredictable way.
- The variability of the responses is not considered as an error but as a necessary disruption so that the system can adapt and produce an internal change.
- The athlete is the protagonist of the training. This leads to autonomy, confidence and motivation; variables that encourage decision-making.

The coach and his/her interaction with the athlete

- He/she is considered an element of the system, which is also self-organizing along with the other elements (athlete, coaching staff). The role of the coach is to observe the system and make overall decisions, which may be different from those of the athlete. The interrelation that this creates with the athlete results in having to work carefully to offer the best of oneself within the system. In order to lead the team within a certain line of behavior, the coach must work in that same line.
- The coach must identify the intrinsic dynamics of the athlete and the team before planning the objectives to be met. One of the qualities that every coach should have is to be aware of the areas for potential within each of the athletes. He/she must begin by developing natural coordination and proposing different exercises based on the intrinsic dynamics of the athlete. The athlete's experiences should be identified, creating methodological proposals based on a stable progression that is balanced with their motor skills.
- Design the exercises according to the interaction of the athletes and their constraints, and manage these in order to achieve the proposed objectives. The coach does not describe in detail what the athlete should do, but rather manipulates

the exercise so that the next time, the athlete works towards the desired objective. Variation of the exercise in this direction, if properly designed and planned, will allow for achieving the goals of optimization.

- Accompany the athletes during their training and learn from this process. Recognize that at certain times, intervention will not be necessary, thus encouraging the autonomy of the athlete. There are times when just being present during the session and without intervening is enough for the correct execution of the exercise. The coach must be able to adapt his/her role during the process and as the athlete grows.
- He/she should establish a heterarchical (non-hierarchical) relationship with the athlete. The coach should create scenarios rather than dictate these all of the time, so that the athlete finds solutions on his/her own. For example, when making a penalty kick, rather than saying how it should be made, the coach should organize the situation so that the athlete identifies what to do and how to do it. It is not necessary to create practices in which the player repeats the same movements over and over, since each moment is different.

Criteria to be taken into account at times of verbal intervention

- Every kind of instruction that coaches give creates dependency. Such dependency increases levels of anxiety and insecurity in response to a permanently changing context that is typical of soccer. During the competition, everything is unpredictable and educating dependent players ends up being a mistake. If a coach does not give instructions, he/she relies on the problem-solving capacity of the player and this, in turn, increases their confidence levels.
- Care should be taken with instructions detailing very specific technical movements and with different types of angulation. Not only because they are not specific, but because the player neglects to pay attention to his/her movements in that context. This can lead to bad decision-making. In the paper by Claramunt and Balague (2010), it was demonstrated that the precision of the field goal by both trained and untrained athletes decreases if instructions are received beforehand.
- Interventions should focus on promoting the spontaneous emergence of the skills sought.

As for the training sessions

- Training loads cease to be seen as external agents, and become part of the process of self-organization in performance.
- The exercises are open, and lead to exploration and finding multiple alternative solutions.
- They are not analytical in nature (dividing the elements of the system into parts in order to train them), but are universal, in order to build upon all of the elements of the system and their interactions. The scenarios of the game have to be worked on in a connected manner, just as in the competitions. Coordination, anticipation, connection and action perception cycles are therefore achieved.
- The progressions in the exercises are assigned based on the increase in their complexity, in parallel with the athlete's growth through experience and performance.
- Effective training of physical variables (musculoskeletal, cardiorespiratory, nervous, etc.) is not achieved by working on each variable separately or through a series or repetitions in a monotonous manner. Training should be varied, as the body needs to find new synergies for its physiological functions. Work must be proposed to simulate the complexity of the systems, which is more effective and specific.
- Training should focus on the development of the athlete's bodily awareness, increasing his/her ability to identify what is happening in the body and what is needed. To this end, it is suggested that each exercise be focused on the reactions occurring at an organic level, to avoid spending the training session distracted and addressing irrelevant issues.
- The separation of the technical and tactical elements should be reduced and allowed to develop simultaneously during exercises. By means of altering the exercises, different scenarios are put forth where both elements should be expressed. He interacts as a unit with the exercise and the context.
- Workloads should be varied to facilitate adaptations to change. Variability adapts the motor responses and optimizes decision-making. Disruptions create stability and flexibility.

Often times, the individual traits of athletes do not match up with the requirements of the sport, but they are able to create solutions and optimize performance. The suggested training proposals should be reviewed, as no two athletes are the same, nor do they encounter the same scenarios in the competitions. In this case, review the methodological proposals that are offered and try to identify how representative they are of the sports context and the athlete involved.

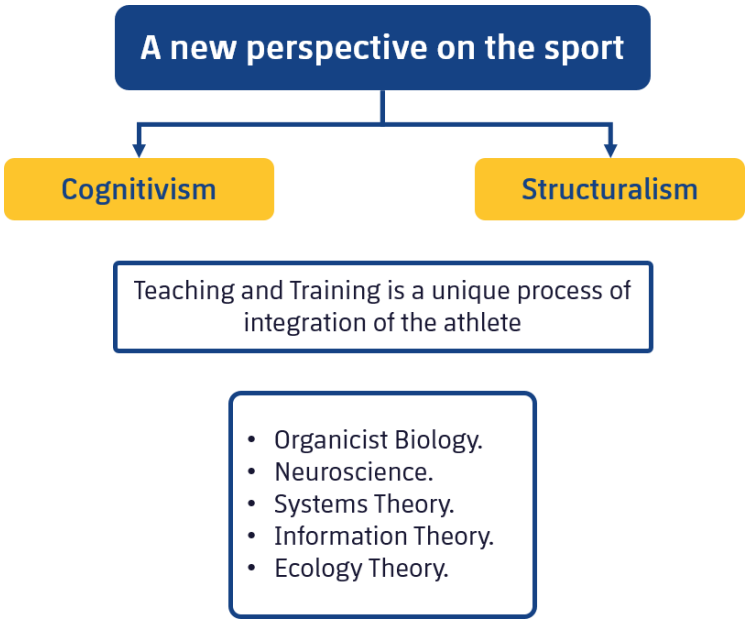
The proposed exercises must respect the functionality of the competition, that is, they should support the relationship between perception and the action that is expressed in the sport. Excessive control by the coach can interrupt the athlete's perception of the information and can lead to incorrect decision-making.

Authors such as Verchoshansky, García Manso, or Ruiz and Sánchez Bañuelos conceptualize training with these terms; viewing the behavior of the athlete seamlessly with the environment he interacts with, instead of explaining such behavior from a purely biological point of view (Torrents, 2005).

Final observations

The purpose of the text is to explain the importance of studying the athlete from a multidimensional and complex point of view rather than from a single perspective. Biology, physiology and psychology can work in isolation, but if they do so in an integrated and interrelated manner, then achieving performance optimization will greatly increase because the "whole" is more than the sum of the parts. If professionals who work with athletes from different areas were to internalize this premise and keep the objective in mind for the benefit of the player, then they would increase their knowledge of the athlete as well as how to analyze and evaluate, since they would expand their repertoire of teaching methods. With this, they could carry out exercises from a holistic approach.

Figure 4: Theoretical approaches



F. Seirul·lo (2010).

Continuing with this stream of analysis, and in relation to what the Dynamic Systems Theory (DST) proposes as well as the different authors who address it, it is possible to understand how a methodological process of sports teaching such as this is recommended.

An athlete who needs to enhance a specific sporting movement, for example: an attempt on goal in soccer is learned through training, according to the traditional methodological approach under the analytical method. This motor movement is broken down into parts and worked on in an isolated and analytical manner. That is, from a linear approach where more of the same is better. If the problem is the attempt on goal, then training focuses on the kick, with the understanding that the number of attempts will be proportional to enhancing this skill. It is decontextualized and isolated from its environment (the game), and is taken to an environment outside of the context in which the action occurs. The training proposals are therefore applied, as this is the traditional scientific view on the behavior of phenomena. To this end, the context does not intervene, determine or influence the athlete.

However, this sporting movement, practiced under the methodological approach of dynamic systems, will work in accordance with the context that characterizes the motor movement. That is, one trains in the place where the movement occurs, in the conditions in which it is executed, with the different structures that can intervene in these types of situations and which form part of the athlete.

FC Barcelona and its consolidation process

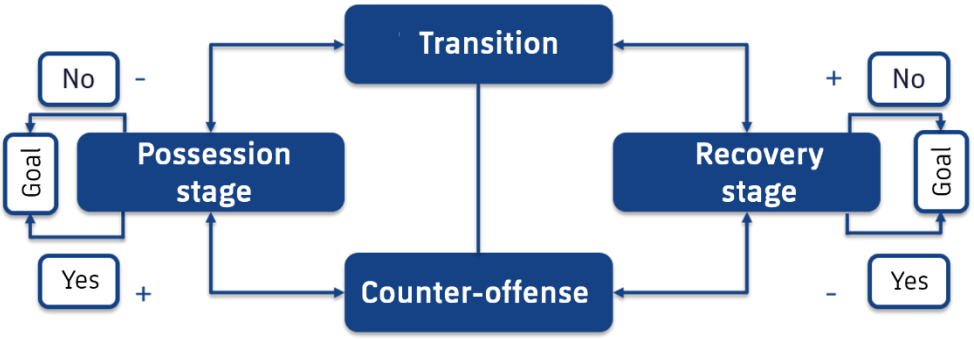
From now on, we will try to explain how FC Barcelona's idea of the game was built over time. This entity has altered the paradigm under which training proposals aimed at performance optimization have been studied. These changes led the field of sports science to begin interpreting variables that had never previously been considered.

The first step in order to understand the new proposals is to get rid of the traditional concepts that define the world of soccer. This means being willing to examine the methodological approach from a different perspective, and encouraged to think differently about the process.

In order to do this, we begin to differentiate what is understood by traditional soccer and compare it with the Barça proposal.

Traditional soccer vs. FC Barcelona (FCB)

Figure 5: Strategies of traditional soccer



Source: Prepared by the authors.

- It's all about playing.
- Under this concept, it is divided, individualized and specialized.

The key objective of the game is to score a goal. As for the defense, if a goal is avoided, then the result is positive. Otherwise, if the goal cannot be avoided, the result is negative. In relation to the possession stage, the effect is the same: when a goal is scored, the result is positive. On the contrary, the result is negative. In this case, there is a dialogic relationship since both situations occur simultaneously.

The transition from one situation to the other is circular, depending on who has the ball. If the ball is lost, the recovery stage begins, and if it is recovered, then the possession stage begins. The following terms have been used throughout the history of soccer: offense (possession stage) and defense (recovery stage). If the ball is in the opposite field, we enter the possession stage, and if it is in our field, then we switch to the recovery stage. It is for this reason that the game is called a "match", as it is split into two actions or in two halves of the field with different objectives for each one. It is the same for the total game time.

Forwards have traditionally always been considered the most valuable players since they are responsible for the victories (scoring goals). Midfielders are referred to as the collaborators between the half that play offense and the half that play defense. The defensive back is responsible for preventing the opposing team from scoring. To this effect, roles are specialized and individualized by zones.

Traditional (soccer) playing:

It is about a succession of movements, which are:

- More or less linked to one another through time (T).
- Each of these involves a certain number of players.
- They depend on the opponents and the place where they allow the ball to be.

These beliefs are the foundation on which the players and coaches have been educated and trained. The idea of understanding that it is the opponent who will determine if the model or system of the game itself can go forward. The point is to understand that each team, correctly associated, will take the initiative to do what it wants during the game.

FC Barcelona (FCB): Our playing model

If you do the same as the others, you will always be dependent on whoever has the most resources. One must change the status quo and dare to do something new, to shift the dominant paradigm. As long as nothing changes, everything will remain the same.

Idea of the game

We want to take possession of the ball to enjoy playing

As far as the idea of the FCB game is concerned, it is a distinct and unique style, based on offense. It is beneficial for the public, the team itself and the coaches involved in the game.

This style is about 30 years old and began with the arrival of Johan Cruyff. They later honed their skills and gained a reputation for excellence under Guardiola. In recent years, it has been shown that with the FCB style, not only can you enjoy an interesting game but you can also win titles.

As mentioned before, it is an offensive style in which the ball is the instrument that guides them. The objective is mastery of the game, for which the ball must be kept in possession as long as possible.

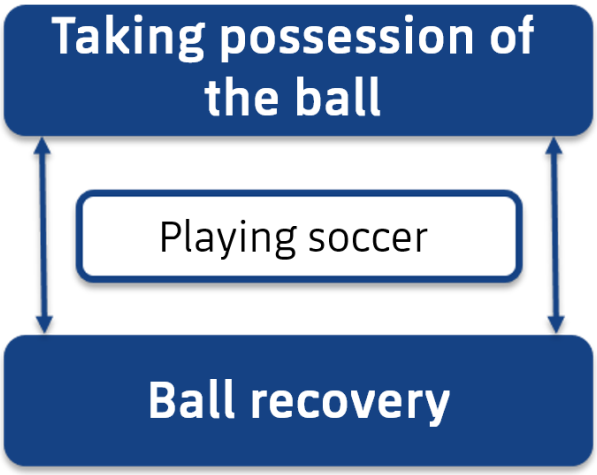
One of the key features is the sense of team above all else, where a player puts his/her teammate first. One of the key elements in achieving this is **pass control**. The pass is the element that helps a player communicate with a teammate. Not only is it necessary to work on pass control, but also **the position game**, which is another characteristic that sets FCB apart. This means that each player must be placed in a position that is suitable for the team, and which allows for control and mastery of the ball.

The idea of the FCB game is to train how you play. The training sessions must be closely linked to the competition. Each day of training includes: rounds, position games, situation games and matches (reduced, short or broad). Francisco Seirul·lo Vargas is the creator of what is known as Preferential Simulating Situations. These are playing scenarios that

preferably simulate what happens in the games. Added to this is the concept of **massive practice**, which indicates that one must train, train and train.

Terminology

Figure 6: Basic concepts



Source: Prepared by the authors.

- One joins (one becomes) the whole.
- With this idea, **it is united, all-encompassing, shared and created**.

In this sense, everyone plays soccer. When the team **takes possession of the ball**, depending on where they are and how they are organized within the space (team), they can either possess or recover the ball. In the case of being in the defense zone with possession of the ball, it is the result of being close to the goal area itself and thus preventing the opposing team from recovering the ball. The team enters the recovery stage against the opponent with possession of the ball, preventing the opponent from advancing. The team with the ball has the power to switch into the possession or recovery stage. As long as they do not have possession of the ball, they are in the recovery stage. It is at this point that **the ball must be recovered**, which is different from defending. The concept of recovering implies searching for something that belongs to the team, to recover what is theirs in order to take possession of it and continue with the objective.

All of this is based on the **abilities and structures of the human being (player)** and the interaction between these.

This is why we use the term **stage spaces succession** and not playing sessions.

Our game

- It is **stage spaces successions** that interact with one another throughout the game. All actions performed create an interaction with the opponent.
- All players are involved. Regardless of which zone you are in, you must be doing something for the collective goal.

This enables us to:

- Be more efficient: the player's physical exertion is lower, and his sprints are shorter and more productive.
- Be more effective: dominate the game at all times and compete with the opponent; enjoy the game and create as many potential goal scenarios as possible.

It is not about attacking or defending (some players possess the ball and others attempt to recover it, depending on each position) but playing, knowing that everyone is participating at all times and in every situation in the game.

In each stage space, 11 players from the team (10+1) actively participate against 1,2,3 or 4 or more players from the opposing team, since in each stage all of the players have a mission and a task to carry out within the overall organization of the game.

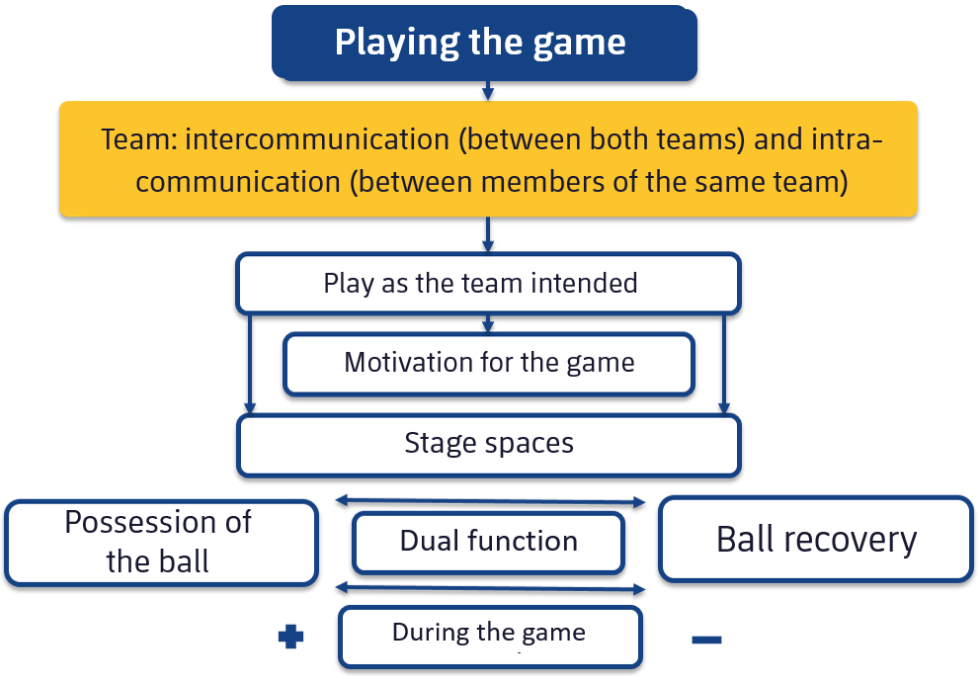
These spaces are organized according to the **interactions between the players**, always using the ball as a reference (Where is it? Who has it? What can we do with it?).

Interactions are based on:

- The location and situation on the playing field (opponents and ball).
- The distance between the players and the ball.
- The path from the players to the ball.
- The direction of the players and the ball.

The above culminates in an organization of all the elements of the team, with the objective of overcoming challenges with respect to the opposite team.

Figure 7: Stages of the FCB game

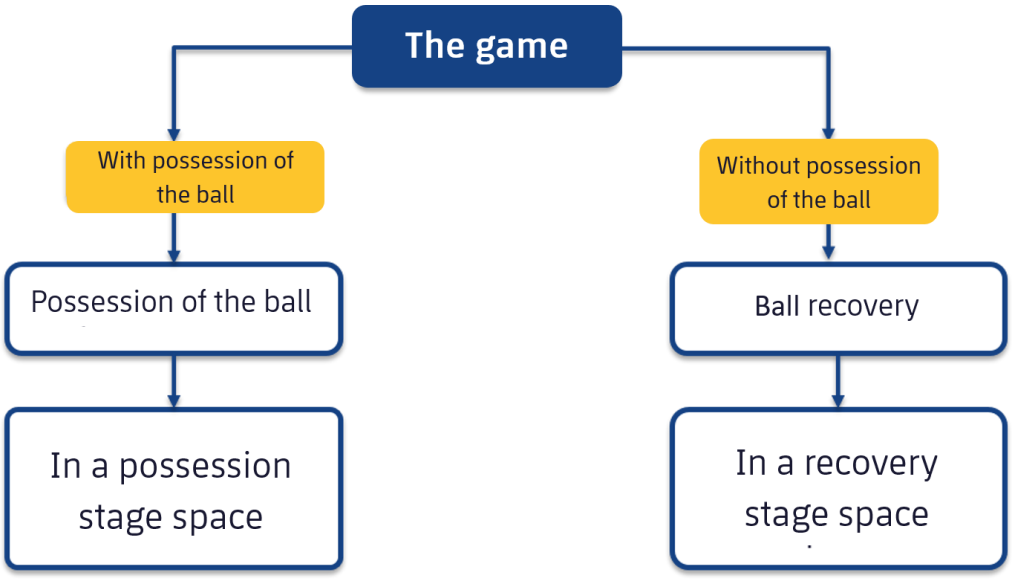


Source: Prepared by the authors.

By mastering the stage spaces, the team can take possession of the ball in any area of the playing field so that they can do whatever they aim to do with it. The objective of the game is then carried out. The objective consists of doing what the team wants in order to prevent the opposing team from carrying out their game strategy. Ball recovery happens in the area where it was lost to encourage motivation. The stage space must be built in each of the places where the ball circulates.

Possession of the ball must prevail throughout the game. The goal is to take possession of the ball in order to score a goal, instead of the "Tiki-Taka" style of playing, which features short passing and quick movements but lacks a clear objective.

Figure 8: FCB model



Source: Prepared by the authors.

Our game model

- It is a stage spaces succession where each stage depends on the previous one and something unexpected is added, which is typical in soccer.
- We do not arrange ourselves in lines but in stage spaces that are a certain dimension.
- The pass lines are the communication channels. The individual tactic is a communication element that encourages intra-communication (between all the elements of the team).

This leads to a certain way of playing that is unique to the club, which in recent years has resulted in other teams practicing and studying the models to try to win.

Stages:

- Define and conclude in a specific team organization. (for the game)
- Having interactive dynamics in the space-time for each player. (for the game)
- Know the necessary motor exercises (What should we be training?), in order to identify the functions of the opponents and teammates, and thus ensure the mastery of the ball (in training).

The game is not a group of plays, but a **stochastic succession of stage spaces**.

Each stage space depends on:

- The space of the **previous** stage and new and unforeseen elements.

New elements are the movements of teammates, opponents, loss of ball possession, etc.

- It is a question of seeing, understanding and adding each stage space in order to foresee the successive ones, since each stage is related to the previous and subsequent ones; all of which are interconnected.

This indicates that in each zone of the field, there is no communication between the 3-4 players involved, but between all 10 players. In each zone of the playing field, the stages are generated based on what must be done, depending on whether the ball is in possession or has to be recovered.

The game is not read; on the contrary, it is built, written and anticipated. If we read the game, it's because it's over. It must be modified based on the training motives. Players need to understand what is going on in order to take the lead.

Terminology of our game

When conceptualizing each action that takes place during the game, it's important to note that everything is observed from a different paradigm, which represents a real change. This leads to an unconventional way of interpreting the game and involves breaking with some of the structures that dominate the field of soccer. To play differently, you have to think differently.

Table 1: Conceptual changes:

We use the term	We avoid the term
Optimize	Improve
Possession stage	Attack
Recovery stage	Defense
Create	Destroy
Enjoy, learn, compete	Just win
Kick	Shoot
Ball recovery	Steal the ball
Be better	Humiliate, underestimate
Competition, game	Battle, war, fight
Empathy	Selfishness
Assertiveness	Competitiveness
Opponent, rival	Enemy

Source: Prepared by the authors.

And that's the truth!

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