Module 1. Motor errors

Unit 1.1 General concepts

1.1.1 The concept of motor error

Motor errors are deviations from the model of ideal athletic technique, which should be corrected if they reduce the effectiveness of the motor execution.

Some people have the opinion that no ideal model exists for any activity. Affirming this indicates a lack of respect for the professionals who devote countless hours to studying this topic, based in sciences like biomechanics, bioenergetics, anatomy, neuroanatomy, etc.

There is an ideal movement, highly studied by biomechanists, and every person gives this movement an individual style. This style varies from person to person, as everyone has a different anatomy, a different somatic structure, etc. Despite this, there are ideal technical models that are still studied, which help athletes to progress. This has come so far that today it is harder and harder to find great sports geniuses, as there are so many athletes in their close proximity that what use to be technically extraordinary does not stand out so significantly from the crowd. Obviously, we have cases today where an athlete dazzles us with his abilities, but those behind him are not so many steps back.
When we talk about motor errors, it is useful to consider:

- What kinds of errors they are.
- What is the possible cause for the existence of this error.
- What could be the solutions.

Once we have decided what movement we are going to perform, the motor cortex sends the necessary signals to trigger this action, with which it produces activation of the different fibers and fascicles. When this movement was begun, the referential signals that we obtain from practice take on great importance. This proprioceptive feedback will influence the processes of error correction, if they exist.

Correcting errors is something we do regularly or, at least, what we try to do every day. Every instructor seems to correct based on merely empirical presumptions, and tends to reproduce the teaching method he experienced as an athlete.

The majority of instructors and technicians do not even signal errors, very few build or structure a corrective teaching method with all of the requirements that this implies. There are coaches who are experts in detecting damaged structures, motor errors, but few are able to generate perceptual structures that help to overcome them. Sometimes the most frequent and everyday instances are those that are least studied, as it is treated as a given that being commonplace makes it knowledge not up for discussion. All the same, it is surprising to find that there is lots of research and knowledge production around the questions inherent to error correction, which help to clear up some crucial aspects.

"Not correcting is worse than not teaching," categorically states professor and Dr. Sergio Hugo Lüscher. As the author of this presentation already objected to, the tendency of newer forms of pedagogy is focused on non-intervention for correction. Correcting movements has been present since the dawn of humanity, and it is not synonymous with oppression or limitation of liberty.

1.1.2 Types of errors

When we are faced with a motor error, we have to differentiate between two distinct types of errors, that is, normal errors and stagnations.

- **Normal errors:** that is, common errors that are produced during any regular motor learning process, especially in the first attempts.
- **Stagnations:** these are consolidated errors, executed this way for years, and difficult to correct. These tend to occur when the student learns well, but was given incorrect teaching. Correcting this type of errors requires a special teaching method. In these cases you, as an athlete, make automatic an incorrect movement, a poor technique. The task of the coach who is attempting to correct this pattern must be thinking about counteracting months or years of excellent learning of a poor technique; we could say that the task of the instructor is to erase the old incorrect pattern and replace it with a correct one.

On the other hand, it is important to distinguish if we are dealing with an error of the learning process (incomplete technique) or a stagnation (consolidated error). In either of these two cases, it is useful to distinguish between the damaged point and the causal chain:

- **The "damaged point" or emergent point of the error:** is the point where the error becomes manifest. It is rarely the cause, but rather a consequence of other factors.
- **The causal chain:** includes all of those factors that ultimately justify the appearance of the error.

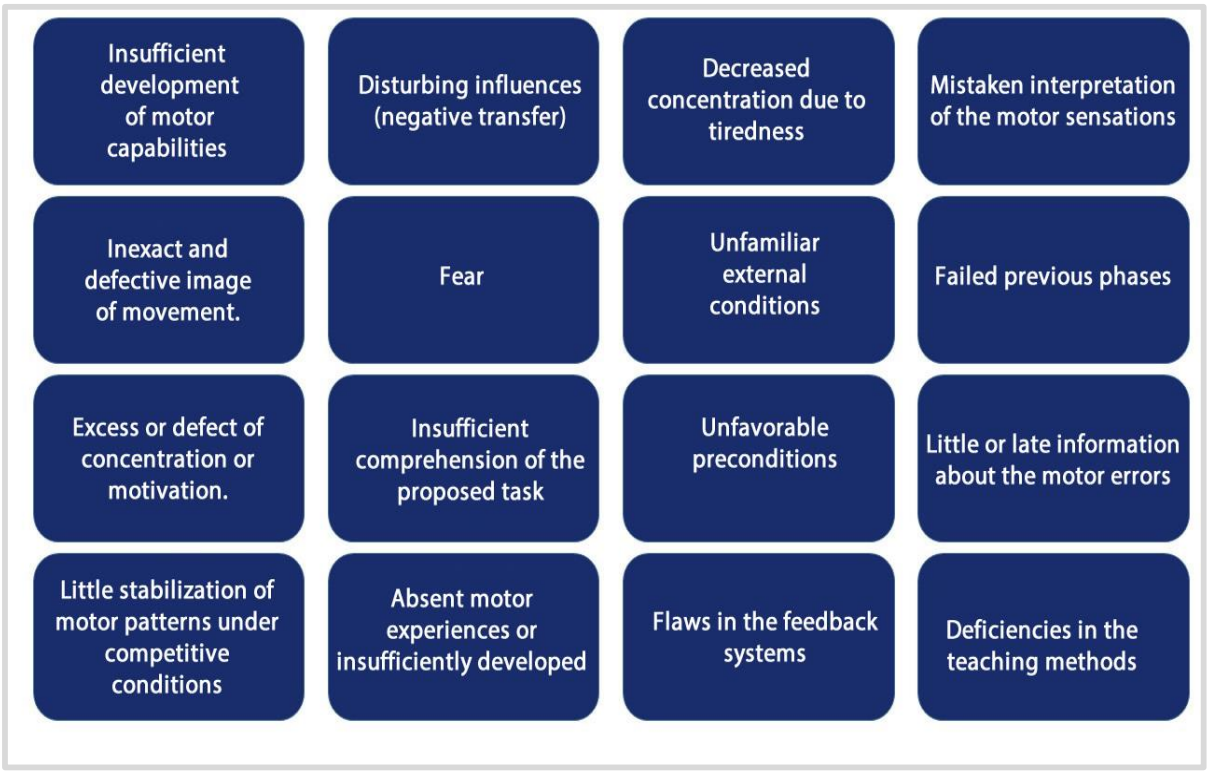
Tracing this possible explanation of the appearance of the errors makes it easier to come across possible solutions. The error is not the cause of the error; the causes could be multiple, or could create a combination of errors.

A good professional knows how to consult with other professionals for advice, with people specialized in these topics, and not focus too much on ourselves, if we do not have clear alternatives to solve this problem.

1.1.3 Possible causes of error

Starting from a study of the topic of error correction, the following items can be identified as a determinant cause for the existence of a motor error:

Figure 1: Principal causes of motor errors



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Despite the existence of so many possible causes, these 4 big groups can cause the majority of errors:

- Errors originating from physical deficiencies:

These originate when there is a deficiency in one of the motor capabilities. In this case, it is important to know whether or not, when teaching a movement, the student is physically prepared to execute it.

If their physical condition (general or specific) is inadequate, the technique will have defects. For example: if I want to teach the breast-stroke kick to a swimmer, but their coxofemoral flexibility is poor. It will take less time to modify their flexibility in early stages than it would to later have to modify a defective motor pattern that is the product of our athlete having learned a specific technique with insufficient levels of physical capacity.

This can also have structural consequences, for example: a high performance swimmer who we were able to work with, presented lumbar scoliosis with right concavity, which made her lumbar vertebral bodies rotate to the left, which produced a marked difficulty with respect to her rotations towards her right side.

If someone has well-aligned vertebral bodies, rotating towards either of the two sides is easier than if they present a deviation towards one of the two sides. In this case, the vertebral rotation in the lumbar area towards the left required much more effort to perform, for example, the rotation that should exist when performing the arm movement in the backstroke; this rotational deficit translates to underemployment of the dorsal and pectoral muscles, which influences physical performance.

- Errors originating from psychological deficiencies:

Within this category of error types, we can identify all those that are related to some kind of deficit in the comprehension of the activities or the motor logic, or some structural problem in the sensory systems (deficit in hearing, vision, proprioceptive, etc.).

- Errors provoked by external causes:

Here we can identify all those factors that influence or determine a motor error, like the condition of the space where the activities are being practiced, the implementation of certain devices or materials, etc. Under circumstances where these are not correctly selected or implemented in the different work plans, we would be encouraging the appearance of future errors.

- Caused by limitations of the teacher:

It is the teacher (trainer) who should select the exercises and plan the loads during training. Similarly, he should be responsible for selecting the training locations and the elements that their trainee will use to carry out the activities, and should also attempt to minimize the risks and ensure that the objectives proposed in the initial stages are viable for training.

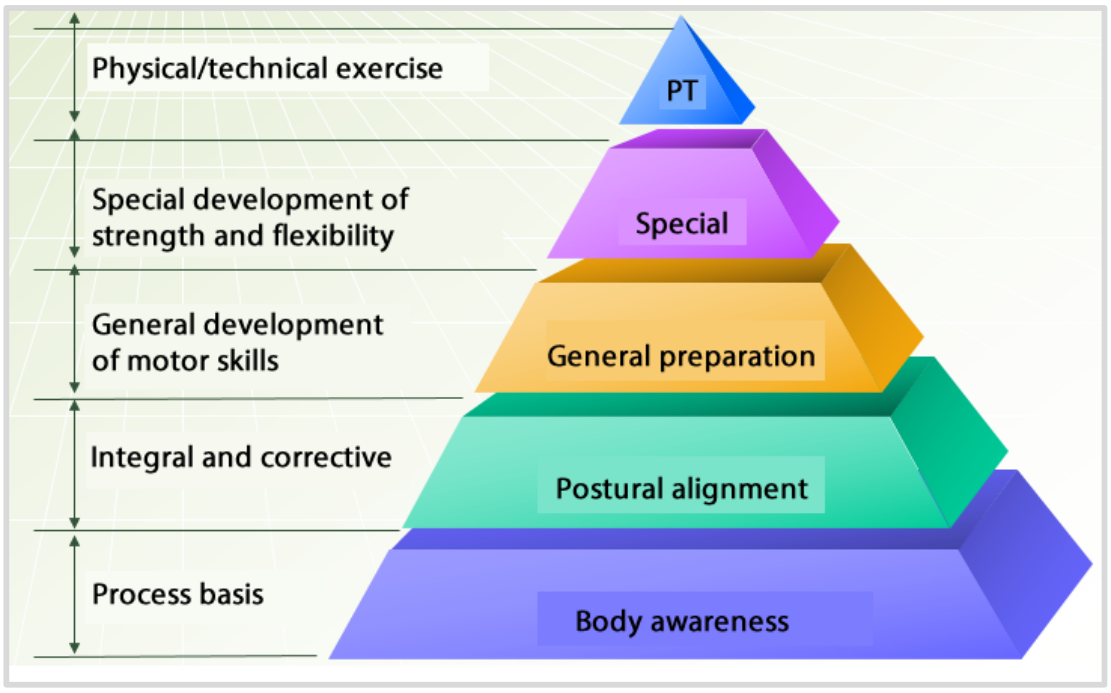
As I have already mentioned, it is good professional conduct to recognize one's own limitations and, if they cannot be overcome, it is not looked down upon to consult with other professionals, perhaps with experts in specific areas that are outside of our knowledge.

In the case that the errors are the result of physical deficiencies, we cannot advance until these have been solved. It is advisable to suspend training of the technique and dedicate yourself to training the special physical preparation. In many cases, competition dates do not allow training to be suspended, so one option is to continue with this error if it does not pose an injury risk. The error can also be addressed by inserting special physical preparation sessions after technical training or within it, by means of activities working with physical-technical exercises, that is, physical preparation with a corrective focus.

The ideal solution is to suspend training and correct the technique. If this cannot be done for some reason, it should be worked on with corrective exercises. These involve placing the person in a perceptual situation and applying a special teaching method.

The steps for corrective physical preparation are as follows:

Figure 2: steps of corrective physical preparation



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The basis of all corrective processes is, inevitably, body awareness, and training this is vitally important. Good body awareness is key: feeling what happens in our body allows us to perform small or large adjustments as necessary in order to have correct postural

alignment, which is an indispensable condition to support the rest of the corrective process.

Some trainers, like the teacher Juan Carlos Higa, adhere to the idea that athletes should not know about techniques, but rather that they should focus on registering the sensations imprinted on their nervous systems by putting into action the different movements. He justified this position arguing that the athlete should not think about the technical motor patterns (this makes the motor action more difficult), but rather should be guided by the sensations and attempt to make these similar to what he perceived when training the technical motor patterns correctly. If the athlete makes a mistake in execution, he will realize – based on the sensations – that the action gives him, not because he is thinking about technique; this is the coach's job.

If you are able to carry out every step of this corrective process, you will have lots of chances to overcome the error, which can be accomplished without abandoning your normal training. The case of the swimmer with rotational difficulties is a clear example of this: work programs can be designed which stimulate her perceptual processes without her having to reduce her work loads in double or triple shifts.

1.1.4 Pointing out and correcting motor errors

Identifying and correcting are two very different processes and, in general, many coaches remain in the first one:

- **Identifying:** this is just indicating the error so that the subject who makes it can be aware that it exists and is warned, but this is not sufficient to correct it.
- **Correcting:** this involves placing the person in a perceptual situation and applying a special teaching method.

We adhere to those proposals that push for addressing a motor error in the moment it is detected. One professional who held to this method was Tulisse, former director of the IPEF.

We understand that a well-trained and polished technique will allow our brain to focus on tactical planning. As we saw in previous courses, technical motor patterns (such as running technique) are automatically regulated by subcortical centers and this will liberate the consciousness as the regulator of this motor act.

It is important to take into account that what was poorly structured in the learning stages is very difficult to correct, and sometimes impossible. When a recruitment pattern that we want to correct involves a very elevated intramuscular activation and coordination

process, there are fewer chances for our interventions as trainers to consolidate as corrections, no matter what methods we employ. On the other hand, when our intervention attempts to correct activation patterns where intermuscular coordination is less elevated, we have more possibilities to correct this error.

We will look at an example mentioned in the previous paragraph: a person who is training at weight-lifting, at the moment of lifting the bar, moves into knee valgus (due to lack of activation of gluteus medius); it is very possible that corrective exercises with low weight can bring about correct femur alignment in this execution with this load level. Now, during competition, when the subject should carry out the technical motor pattern with 100% of their motor units, we find it difficult to ensure that the defect that was corrected with preventative exercises does not appear. It is very important to understand that we are dealing with different instances that are complementary; all the same, correcting requires a special teaching method that transcends the remaining possibilities.

For correction, there are two possibilities, based on a distinction from the German school of technique training. When describing the differences, it is not sufficiently clear. For this reason, we recommend that you take into account these considerations, which contribute to helping the athlete even more.

- Direct corrections.
- Indirect corrections.

Direct correction: the error is mentioned, explained, and the student is given indications about how to avoid them (the student, when practicing, concentrates consciously on correcting the error).

- One possibility is comparing the correct with the incorrect.
- You can demonstrate in an exaggerated way the ineffectiveness of the erroneous motor pattern so that the student becomes aware of how their own motor pattern deviates from the technical model.
- Or you can generate execution instances of partial phases or isolated elements of the movement to direct their attention to the motor details that make up the principal cause of the error.
- Or provoke exaggerated demands to give greater precision in the motor sensation.

Indirect correction: the external conditions are regulated, and new perceptual structures are created.

- Always take into account the possibility of variation in the external conditions of the movement (implementation, terrain, behavior of teammates).

- Another tool is the organization of external obligations that make only the correct motor pattern possible or which facilitate it.
- Propose exercises with supplementary technical devices that transmit objective information to the athlete.
- Review the exercise under facilitated conditions.
- Emphasize training the undeveloped preconditions.

In short, what we call direct conditions is very similar to what we understand as identifying the error, and the indirect ones as correcting the error. All the same, the act of identifying the error is important. It is the first step: it actives and directs the attention, and generates emotional consequences.

Below, we will list a series of suggestions or general recommendations for error correction, which come not just from the literature but also from classes and personal experiences:

- Observe the athlete when they execute.
- Compare the performed motor pattern with the ideal model.
- Recognize the error and subdivide it into principal and secondary.
- Search for the cause of the error.
- Determine the appropriate measures for correcting it.
- Offer instructions and tools to correct the error.

We can identify the following topics that we consider to be important when training a student:

- Detect what is done poorly and why.
- Understand how to do it well (and if you do not know, seek advice).
- What should be done to do it well.

How as a consequence of correcting an error in movement, we produce an improvement in the image of this movement and in the formation of motor perception and vision.

Unit 1.2 Errors and corrections

1.2.1 Spatial, temporal and dynamic structure

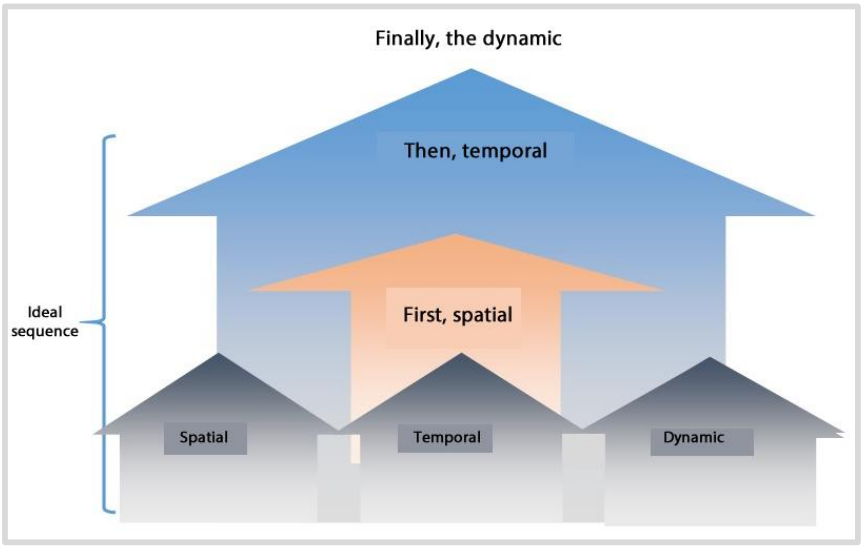
When we think about correcting errors, we need to know that our intervention can have repercussions on three structures that make up the movement: spatial, temporal and dynamic.

The spatial structure has to do with the *where* in relation to the joint nuclei. For example: where should the hips be in relation to the knees in a technical execution.

The temporal structure is related to the sequence of movements: what movement comes before and what follows it.

The dynamic structure refers to the expressions of force that are imprinted on the movements.

Figure 3: Structures of movement



Source: Prepared by the author.

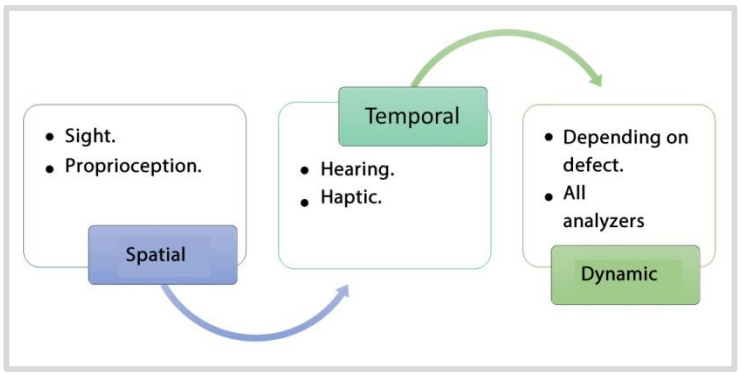
When learning a forward roll, if the student locates their hands close to their feet, they are falling into a spatial structure error; if in the same motor pattern, they raise the feet before elevating the hips, the error is in the temporal structure.

When considering sports where tactics are fundamental, you cannot teach relief players (in handball, for example) if they do not know where they need to be located, and you cannot teach a change of rhythm to pass from defense to attack if they do not know when it is appropriate to do so.

Both in sports where technique is fundamental and in those where tactical actions determine the result, it is vitally important to respect these structures; sometimes they get mixed up and end up slowing down the learning and correcting processes.

Based on the differentiation, we can figure out which structure contains the error. It is simpler to create corrective exercises on the basis of this classification.

Figure 4: Sensory structures and analyzers



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The spatial structure is regulated by the sensations that we perceive from the proprioceptors and the visual profilers, although the sense of sight provides the most information for correcting spatial problems. For example, in a team sport, if we do not know where we should be located, we can signal this area with different elements.

The temporal structure depends on hearing and haptic sensitivity. On many occasions, an auditory stimulus will allow us to realize when we should perform an action. This structure does not depend on vision, as vision does not provide succession but rather simultaneity.

The dynamic structure depends on all of the analyzers.

We include the postural structure as key in technical error correction. It can be developed with a combination of the other three structures.

In any case, we find it fundamental to continue giving illustrative steps with respect to error correction:

- It is important to compare and become aware so that the athlete understands the reasons for the error, from the execution and not from the anatomical or biomechanical point of view.
- Work on the reasons that lead to the error: it is fundamental that the athlete understand.

- Create sensory-perceptual conditions, which implies distinguishing the structure with the error and, based on this, preparing a specific method for this error.
- Work on the analyzers that the error depends on.
- Ask for help when we cannot do it alone.

Better than a lot of words is the creation of perceptual and environmental conditions that promote awareness of the error and what should be done in order to overcome it.

When facing a process of error correction, it is vital to avoid over-saturating our trainee with information. Many trainers succumb to the erroneous temptation to correct several errors at the same time, and this saturates the subject's capacity for comprehension, "flooding" their information processing channels and reducing their capacity to understand.

It is a mistake to try to give a detailed description of all of the problems surrounding execution at the same time so that the athlete can interpret and correct them all in one go. From this we can draw the following guidelines:

- Know how to wait.
- Know how to prescribe.
- Know how to detect.
- Know how to choose.

If there are various simultaneous errors, it is important to know how to differentiate the most relevant aspects. In this sense, biomechanical errors are very relevant for correction. Here the coach's knowledge is critical.
The most relevant is that which depends on biomechanics and corresponds with an error in the spatial structure. What should be resolved first is that which all the rest depends on. Only then should we resolve what depends on the temporal and postural structures. Finally, we tackle the dynamic structure and other details, like presentation, charm, charisma and other conditions belonging to certain types of sports.

It is important to consider the number of errors that can be worked on per session. If our trainee is in an acquisition stage, it is impossible to pay attention to more than one error per session. When the motor pattern is automatic, more stimuli can be added, just like in the refinement stage, where I can address up to four errors in one session. For this we should always take into account that:

- The most relevant errors should be dealt with first, at the beginning of the session, when the capacity for attention is greatest.
- We should never correct in a state of fatigue.

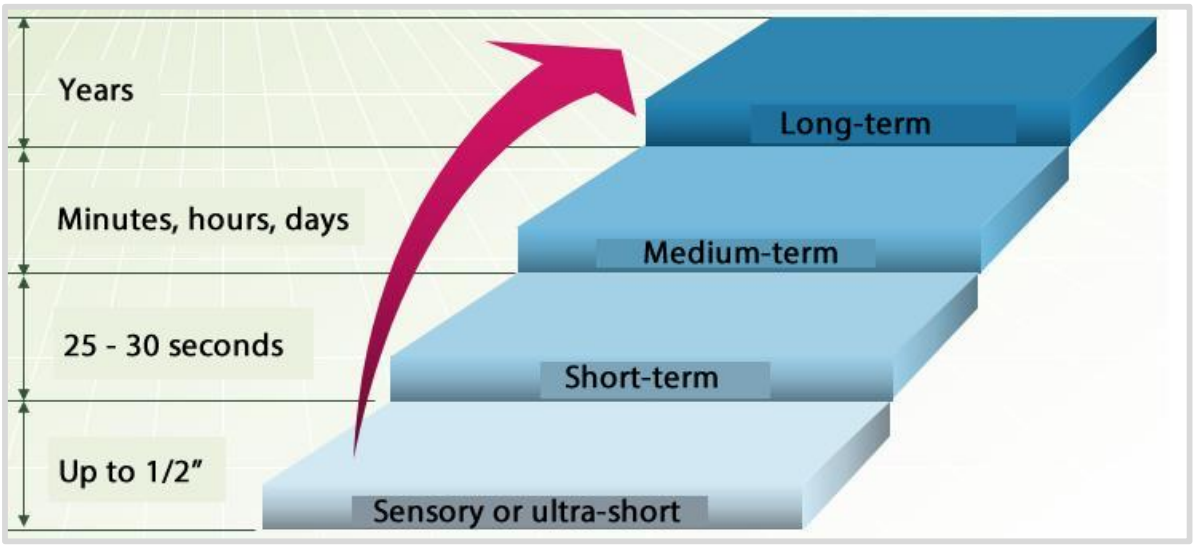
- We should move on to other motor patterns once the first ones are corrected.
- The sessions should be organized within the week.

1.2.2 The right time

To be able to address this topic, we have to discuss, although only superficially, the topic of motor memory. It is key to take advantage of the right moments to strengthen the results. There are two conditions for selecting this ideal moment for error correction: memory and emotions.
Motor memory can be divided into three instances:

- Ultra short-term.
- Short-term.
- Medium and long-term.

Figure 5: Motor memory and times



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Ultra short-term memory is the basis of motor coordination, as it allows the CNS to make comparisons.

Which of these types of memories is most useful to us?

Ultra short-term memory is crucial for coordination during the action, but almost 90% of it is lost when the movement ends. Medium and long-term memory allow us to configure and improve the image of the movement, but not as material for correction. During the training session itself, short-term memory is used.

Short-term memory is what is most useful to us in error correction. We realize that our student did an exercise wrong and we wait 15 minutes to propose a corrective instance. In this case we are falling into a methodological error, as around 30 seconds after the execution is when the person performing the movement has established the most relationships. Short-term memory is the reverberation in the circuits of the information along with what the coach is saying and with the perceptual situation that can be implemented immediately. Taking immediate advantage of this is what allows us to more quickly filter out the negative and consolidate the positive.

Before executing a given motor pattern, we often say that we have to concentrate on what we are about to do to create a correct image of the movement. While this recommendation does exist, this should not be maintained until the action as already started, but rather about fifteen or twenty seconds before the execution we should leave the mind free so that the programming and execution process happens fluidly. If thinking about the movement lasts until the moments right before initiating the action or even once the action has already started, we risk falling into what is called *analysis paralysis* (a phenomenon mentioned in previous units). Just as it is important to concentrate before execution, from our perspective we recommend the following:

- Give feedback in the first 30 seconds after the execution.
- Differentiate and decide what important information the athlete will receive:
    - Focus oneself after performing.
    - Do not get distracted after execution; information is lost due to distractions.

It is extremely important not to distract ourselves immediately after the execution. The quality and quantity of the information that will reverberate in our short-term memory depends in large part on not being distracted after execution. The subject who becomes distracted loses this information that allows them to relate the motor act with what the coach tells them, and loses an opportunity to consolidate the error correction.

Depending on the instance, the external information that we can receive could be:

- **Synchronous:** the information is provided simultaneously during cyclical low-complexity exercises, where subjective and objective external feedback is provided at the same time that the athlete is performing the exercise. If there is interference, this process becomes more difficult; it would be difficult to be able to provide synchronous information if something were blocking the visual or auditory senses. The possibility for providing information during the movement is very limited, and it can be implemented during cyclical motor patterns with no interference, or in non-cyclical but slow motor patterns. If you want to provide information about the

execution of an explosive cyclical motor pattern, you could distract the subject and provoke injuries.

- **Rapid:** this has decisive importance in refining athletic technique. Information provided before 30 seconds have passed, allowing the athlete to relate fresh proprioceptive data with the external information of the coach (if the coach cannot provide this, it is crucial that the athlete remains mentally focused on the movement until the coach can talk to them).

To summarize and keep in mind:

- Rapid information should exist, but it should not be given close to a new execution:
  - It should be provided at least between 20 and 30 seconds before the new execution.
  - Feedback processes will predominate over programming the new movement.
  - If information is given too close to an execution, it is very probable that it will negatively affect the programming of the action.
  - Late: this is the least effective for correction, but it serves as perceptual training (the information is verbally encoded). While this is the least effective method, it is better to have late information than to have none of these methods at all.

1.2.3 Correction and perception

As was mentioned above, it is key to focus after executing a motor act, especially if the coach cannot provide feedback immediately to the athlete about corrections.

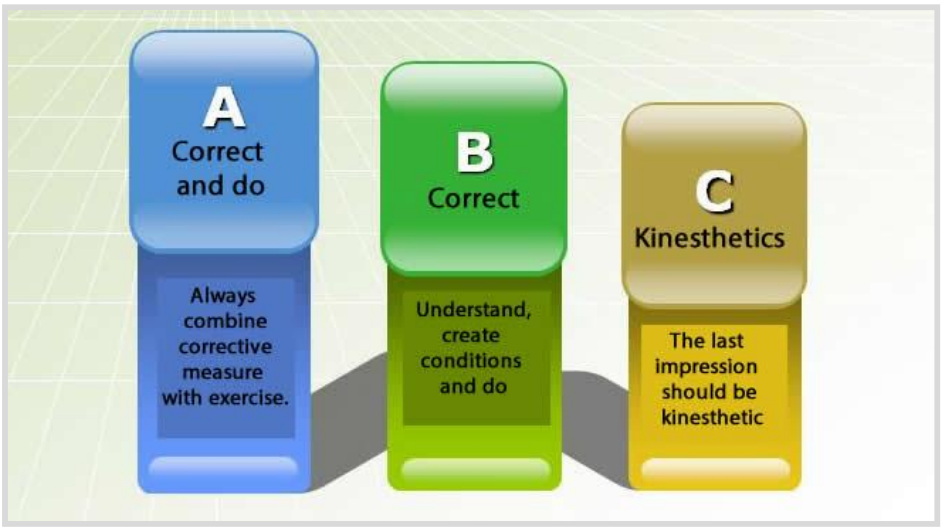
The objective of maintaining focus and concentration post-execution is to avoid losing key information for correcting errors or consolidating well-executed aspects. For this to be effective, it is very useful for the coach to signal what the person performing the movement should concentrate on after executing the motor pattern. Few authors consider this prescription, all the same it is one of the most important assignments for learning.

It is vitally important to understand that errors in the motor dimension can be addressed starting from the words and the information that the coaches provide to the athletes, but they should always finish with a properly performed motor execution.

As professionals responsible for a student or a group, we should understand that our task is to always combine corrective measures with physical exercises. We need to move beyond an instance where we only intervene with words, we should forget the idea that theory is fundamental for error correction; more than any of this, our trainee needs to perform and perceive the sensations of a correct motor pattern.

Once we have provided information to the student about their errors, we should create situations that favor overcoming the error by means of activities that allow them to take away a kinesthetic impression as the last stage of correction.

Figure 6: The coach's tasks



Source: Prepared by the author.

The final impression that the trainee should take away should be kinesthetic. For example: if a given athlete has problems with a technical motor pattern and the coach stops the practice, explains it theoretically, provides them with examples, supports this with images, etc., and the student understands this, but goes home with their last kinesthetic memory of the movement incorrectly performed, the correction process remains incomplete. Our job is to help the athlete finish the session with a good motor memory of the properly performed movement.

Suppose that, for some reason, our student has difficulties carrying out the full motor pattern properly. All the same, we can generate this good kinesthetic memory using different strategies:

- Perform the full motor pattern with assistance.
- Perform the motor pattern in pieces, assisted or with help: once they can feel the movement, although it was performed in pieces, finish the session or move on to different content.

Any of these alternatives provide perceptual sensations of the movement that purely theoretical corrections leave behind.

When proposing activities, we should be intelligent to know when to change activities or finish up the session. It is not useful to propose a technical-tactical situation that, as a

consequence of the number of repetitions and the consequent fatigue, brings our athletes to perform low-quality motor actions.

It is advised that, the day after the error correction session, the student perform several attempts of the motor pattern in question, at the beginning of the class, to add more repetitions in situations where fatigue is not present. It is important to avoid central fatigue, both afferent and efferent, so it is advisable to perform a few executions before causing errors due to the appearance of fatigue.

Two types of corrections that we can employ are preventive corrections and overcompensating corrections.

Preventative corrections advise about the most common errors in developing the technique and make the athlete aware of possible errors that can appear, supported by the logic of probabilities (these happen to almost everyone, so it is probable that it will happen to you). It is important that this correction does not generate fear in the athlete, as this can have a negative influence.

Overcompensating corrections for an error exaggerate the correction, to such a degree that it gives the impression that there is another error. The objective is to find the middle point.

One very useful tool for corrective processes is to eliminate hemibodies, upper and lower bodies or limbs. Take the case of a gymnast who, in the moment of performing a back handspring, delays bending one of her shoulders in relation to the contralateral shoulder. As a possible resource, we could eliminate the arm that is going earlier in the technical motor pattern (tying it, putting it in a pocket, etc.) so that the student is obliged to use the "slower" arm in the motor pattern that presented technical errors.

As coaches, we have the responsibility to understand what we are going to correct, as the fact that one arm is delayed with respect to the other could be the consequence of poor posture, poor alignment of one of the limbs, etc. Here it is relevant to repeat something already mentioned: if we do not know about a given discipline or a particular technique, we should not hesitate to seek advice from someone competent in this area who can help us to improve our athlete's performance.

During corrective sessions it is a good alternative to use a large variety of exercises instead of a single repetitive and tiring one. With this we seek to associate the positive aspects of various exercises addressing our error, instead of what we can perceive from merely repetitive executions.

As we discussed in the previous unit, one type of error that can occur is the stagnation. The causes of these are varied, and among them we can mention:

- Learning an inadequate technique.
- Receiving feedback only on errors, without any positive reinforcement.
- Stabilizing the technique under conditions that are very different from competition conditions.
- Emotional factors, which are determinant.
- Continuing training with defects in motor capacities.

Some forms of addressing this are:

- Pausing practice and returning to it under totally different conditions (a different field, a different pool, different elements).
- Increase sensory information so that there is over-stimulation, for example: swimming using only flippers, kicking while pushing against the wall, etc.
- Restrict information: by means of limiting peripheral references, we can make corrections based on cortico-cortical relationships.
- Ultra-slow executions.
- Ideomotor training, based on Paul Dorochenko's model.
- New rhythms: change the speed of execution.
- Modify spatial limits: limit the field of play or field of action.
- Substitute movements: this consists in replacing a preliminary phase of the main motor pattern with a different movement or a different element that is neither similar to the real execution, nor antagonistic. For example: use the spins from hammer-throwing to throw a discus.
- Reduce the application of force, for example: use trampolines to perform jumps.

1.2.4 Correction and emotions

To deal with the process of error correction, we can address it by comparing the theory to a sandwich.

Figure 7: Sandwich theory. Motivation

Source: Prepared by the author.

This theory involves:

- **Recognizing** what has improved.
- **Acknowledging** the value of the effort used to achieve it.
- **Reinforcing** the achievement positively.
- **Identifying** the damaged points.
- **correcting** these damaged points with the special teaching method (which will be addressed in coming modules).
- **Continuing** to motivate the athlete, emphasizing the high probability of correcting the error and seeing results from their efforts.

Going to extremes turns out to be counterproductive for consolidating motor patterns using a correction process. The coach who is always giving negative feedback discourages the student and, as a result, the student will perform the activities with a negative emotional burden. On the other hand, it is also not productive to give the student positive feedback if their performance does not merit it.

Both in team sports and individual sports, after competitions we advise:

- Do not provide information after a movement that produced pain or after a blow.
- Do not always correct after the match if the result was negative or after a failed attempt to use a skill.
- Do not correct immediately afterwards, as this is not always optimal
- Correct immediately afterwards if the emotional conditions are appropriate.
- Correct immediately afterwards if the work team takes on their responsibilities with maturity and meets the loss with calm.

The motivational factor is vital for performing any activity we undertake. Therefore, as coaches, we should not always take the first moment to list our students' errors, but instead we advise you to first identify improvements and then address the error. Additionally, we should encourage them to overcome obstacles, and always propose the

correction from an optimistic perspective, with the goal of avoiding stagnations and consolidating errors. This does not mean we are trying to avoid pointing out errors, we do not need to be afraid of this, but we need to remember not to use only negative reinforcement. All the same, we should remain firm, and not deprive the athlete of the chance to understand their errors and the possibilities to overcome them.

In a lot of situations, the errors could be provoked by negative emotional situations that are products of the fear generated by a given skill. In these cases, the aids or props that we should provide play a crucial role. These could be, for example:

- Manuals.
- Ropes.
- Harnesses.
- Belts.

Obviously, the form of assistance can vary from teacher to teacher and sport to sport, which gives some freedom for everyone to invent devices that help generate confidence in their trainees, that reduce the levels of stress provoked by the activity and that provide the emotional support necessary to overcome the motor error.

References

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