The game is nearing a critical threshold

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Tactical development of volleyball teams

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Playing volleyball at the elite-level requires an incredible ability to adapt. Different opponents will pose different challenges, and even the same opponent is expected to change selected aspects of its game in time. Furthermore, nearly every team with a minimum self-respect conducts a thorough analysis of its own game patterns, and also of the opponents' game patterns (Ciuffarella et al., 2013). This mutual and exhaustive scouting improves our knowledge of how both our team and the opponents play (Garganta, 2009; Lames & McGarry, 2007), and aids in developing expectations on behavioural regularities (McGarry et al., 2002). Therefore, almost every team is trying to change something on its own game style or plan, while at the same time trying to avoid the opponent being able to grasp its own patterns and intentions. In this vein, more complex and diversified game systems are expected to emerge, and this is the point where it gets interesting: game systems, those highly structured game phases and plans that coaches and players create and implement, will ultimately be rendered ineffective when game variability and reliance on a broad range of highly develop individual skills (both tactical and technical) becomes so great that this logic stops providing the required solutions. At this point, game structures and systems will not disappear; instead they will be forced to evolve towards a much more principle-based set of actions rather than more rigidly predetermined arrangements (Laporta, Nikolaidis, Thomas & Afonso, *in press*). Emerging *novelty* is the responsible for this (Walter, Lames & McGarry, 2007).

On the verge of this threshold, a tipping point will be achieved in how we conceptualize the approach to collective actions in volleyball. Namely, the focus will move towards individual skills of *reading* and adapting in real time to an increasing number of possibilities. This ability to read and adapt accordingly will become paramount in volleyball, but especially more prominently in balanced matches. Indeed, in such matches, little details bring about the potential to make a huge difference. Just how this individual reading and adapting will be achieved, and how it will cope with collective (or team) reading, is the scope of this work.

Reading and adapting – decision-making brought to central stage

Although teams practice in attempting to understand what to expect from their opponents (Bergeles & Nikolaidou, 2011), often balanced matches will be decided upon the unexpected, upon deviations from what is usual. The substantial variability in game structures and in individual resources, plus the moment-to-moment decisions that each player makes, eventually decide the outcome of a match (Laporta et al., 2014). As teams develop a growing knowledge of both themselves and their opponents, we contend that such variability and ultimate reliance on individual actions will be increasingly important. Moment-to-moment decisions will play a more nuclear role within the game. Eventually, each play will be decided on the confrontation of a number of individual decisions.

Although apparently a simple principle, it will bring about serious consequences for traditional approaches to the game. From volleyball books to research papers, from university classes to coaches courses, we have been focusing excessively on game regularities, on creating game structures that are relatively stable in time (albeit admitting some degree of variability), such as defensive systems, attack coverage structures, side-out formations, and so on. Notwithstanding, perhaps time has come to start training and preparing for competition investing less on structure and more on agency (for a comprehensive understanding of structure and agency, please consult

the works of Anthony Giddens). This implies making athletes comfortable with multiple ways of receiving, defending, attacking, and so on. It also implies preparing athletes for systematically having to decide well, putting them under constant decisional pressure. Ultimately, the ability of *reading* the game will emerge as the uttermost important skill for performing at the highest levels of competition.

Where does the collective project fit in?

First and foremost, we should highlight that we do not wish to state that team systems, structures and organization of certain game phases are not useful. On the contrary, they are extremely important and we should keep improving them. We are merely predicting that their usefulness will be faced with unavoidable limits, and those limits must be surpassed relying more on agential skills, and less on structural solutions. Mere expansion of the number of practiced structures will not suffice. So, the problem we must now face head-on is: how can we reconcile individual decision-making within a collective project? Reading, however important and individually based it might be, should be framed within a collective project. So, teaching reading principles should follow well-established guidelines and philosophies and – as the playing level rises – progressively provide more specific and detailed cues. The goal is that every element of the team possesses a basic understanding of how, what and when to read. Ideally, this will lead, in time, to a team where all players are reading the game in a highly similar fashion, thereby acting effectively as a whole. Obviously, this will also demand a considerable amount of training time and game analysis, and the more stable a team roster is, the better. Time will provide the basis for habituation in order for such reading routines to become effective as a collective project.

Practical examples of how we can develop reading skills

An article of this nature should not be exhaustive, but merely engage in a critical, provocative argument, hopefully providing the readers some food for thought. Notwithstanding, a mere theoretical approach will likely fail short of its purposes. Therefore, we will provide a few selected examples related with the promotion of reading skills and consequently decision-making in the act of setting. We will then move on to more global drills that bring about the need for reading and incorporate it in competitive scenarios.

Setting

Previous note: we hereby consider mainly three wide definitions for the zone where setting takes place, and which are related to the quality of the first contact. Broadly, the 'A' setting zone is where the setter has all his/her options available. In the 'B' zone, some types of quick attacks and of combined attacks are not possible, but still the setter has several attack options available, including some possibilities with regard to quick attack. Finally, zone 'C' is that where only high balls are possible to be set. Definition of these three zones has been attempted in scientific literature, but is always tentative, as these zones differ from team to team, depending mainly on the setter's skill and on the quick attackers' quality.

1. In this first drill, the setter is given an A ball (in future stages, B balls can be added as well). He/she will have to set the ball towards position 4 or position 2, depending on the opponent's middle-blocker. Namely, the setter must counter any initial asymmetries in the blocker's positioning and/or any anticipatory movements (e.g., starting to move, even if so slightly, to one side of the net).
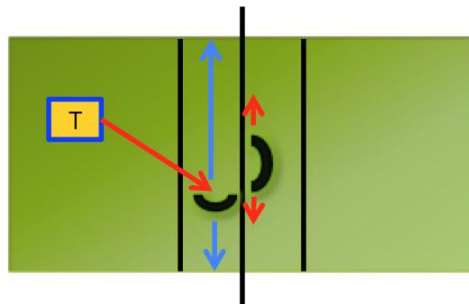

Figure 1 – Setter vs. Middle-blocker

2. The second drill is fore more advanced setters. When playing in front row, the setter can benefit from using a starting position for setting that is far away from the net and more to the right than usual. He/she can then use this starting point to deliver a powerful attack during second contact. In this drill, the setter will have to choose between that attack or a side setting while facing the net, again depending on the blocker's reaction. If the blocker commits, the setter should set; if not, the setter should spike the ball. Layers of complexity can be added, such as including the middle-attacker and/or two blockers (positions 4 and 3).
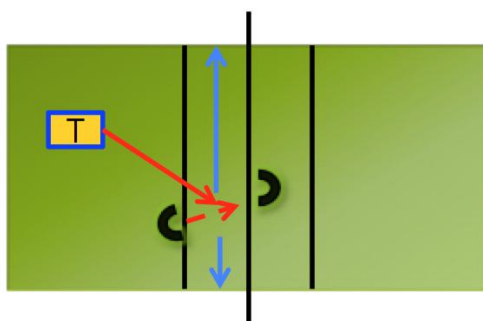

Figure 2 – Setter-attacker vs. Blockers

3. Setting may also have to be performed by other players, such as the middle-player and the libero, although other possibilities have to be practiced, especially in C balls. In the following scenario, the coach simulates a defence by the setter in position 1, while the middle-blocker is just recovering from having blocked (either in position 4 or in position 2). The ball is directed towards the area of intervention of the middle-player, who has to then set the ball to position 4 or position 2. Like in drill no.1, this decision will be made in function of both the position and the anticipatory actions undertaken by the opponent's middle-player.
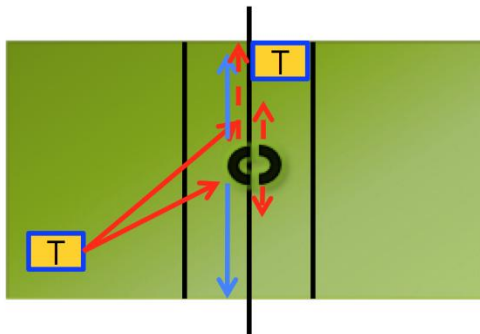
Figure 3 – Middle-attacker as setter vs. Middle-blocker

4. By focusing reading and decisional training upon cues derived from the opponent, coaches may overlook the need to read their own team, i.e., each player should accurately read the intentions of his/her teammates. Otherwise, the collective project may be rendered ineffective. This next drill, although keeping in line with the theme of setting, provides the setter with the need to keep focus on his/her quick attacker. Namely, and again starting with A balls, the quick attacker can hit multiple different first tempos. The trick consists in the setter not knowing in advance what hit will the middle-player attempt. Therefore, he/she has to keep monitoring this player in order to select the most suitable set in each situation.
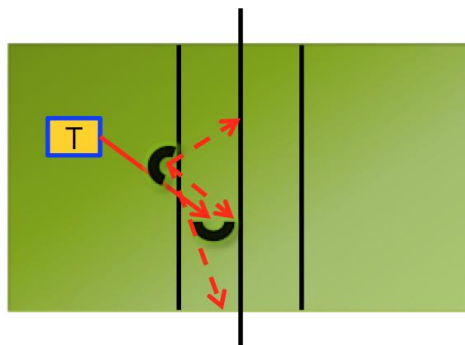

Figure 4 – Setter with Middle-attacker

More global competitive drills

5. This drill pretends to develop collective reading skills within the same team. It also considers that wing-spikers have a large role in attacking in positions 4 and 6, while middle-hitters can either attack a quick ball or, instead, attack a slower ball in the extremities of net, especially in certain side-out formations or attack combinations. Although the latter is not very common, some teams do deploy such strategies. In this situation, there are two available middle-attackers, one for the quick ball, and the other for attacking in the extremity of the net. There are also two wing-spikers acting as receivers-attackers. There is no predefined play; instead, the attackers and the setter will have to build the attack in 'real-time', without coincidence of actions, i.e., they have to maximize their attack options and maintain the whole width of the net available for attacking. After serve-reception, one of the middle-players must call a quick ball; the free middle-player should always attack in the extremity of the net corresponding to the side where he/she is receiving.

The wing-spikers will adjust accordingly; meaning the wing-spiker corresponding to the quick middle-attacker will open to attack in position 4 or 2, depending on the side where that middle-attacker starts. The remaining wing-spiker will make himself/herself available for attacking the pipe. The success criteria for the drill will vary considerably depending on the level of the team.
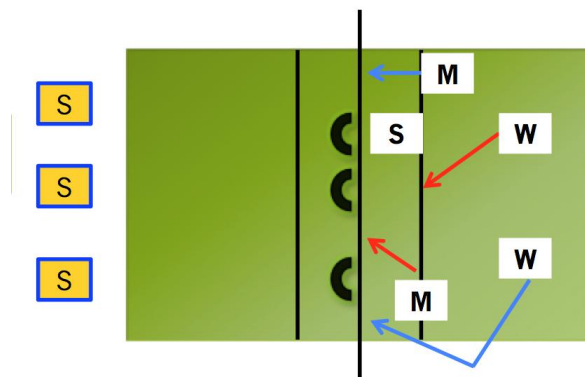

Figure 5 – Reading-base attack building

6. The following is a pressure game-like drill whereby the wing-spikers (position 4) are the only attackers than be served by a set. The coach tosses a specified number of balls to start playing, usually alternating between teams. The teams score a point each time they win a rally. However, in every first ball, the defending team can conquer additional points, namely 1 point if the block touches the ball, and another point if the defence also touches the ball. So, even if the team starting in defence ends up losing the play, it is possible to win by a score of 2-1. The goal is to promote the attackers to read both the block and the defence, hence attempting to find the empty spaces. Simultaneously, defence will be eager to accurately read the attacker's intentions, as even the slightest contact with the ball will result in conquering a point, regardless of its outcome. *Note: this drill should be used with only two players in front row (positions 4 and 2); hence, the power hitter will face single block every time. When double block is included, the touch in the block becomes more relevant as a privileged choice available to the attacker*.
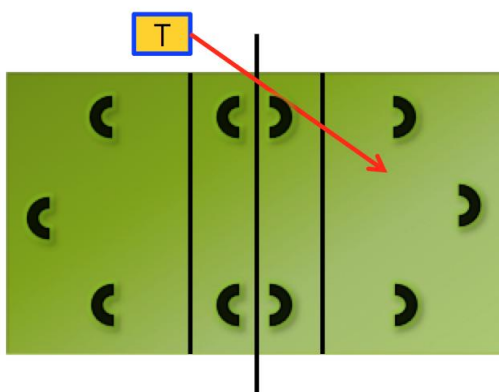

Figure 6 – 5 vs. 5 pressure game (position 4 hitters)

7. The following drill involves providing the same team with three consecutive freeballs or downballs. In all three attempts, each attacker is obliged to always attacking the exact same ball; therefore the collective attack combination must remain the same across each sequence of three balls. However, the setter can never repeat an attacker. This attempts a manifold purpose: *a)* to promote communication and adjustments between defenders and blockers, namely the reading of the opponent's attack options; *b)* to develop the setter's reading and decision-making in real time, but with an underlying medium-term strategy, i.e., not been able to focus merely on each play *per se*, but having to deal with unbalancing the opponent's block over the course of three plays; and *c)* as each play unfolds, pressure over the remaining attackers is increased, as the defending team will know in advance that fewer options are now available; therefore, the attacker will be faced with increasing pressure and an ever more cohesive opposition.

And what will be of technique?

In this predicted future where reading and decisional skills will appear centre-stage, what will be of the more technical approaches? Well, paradoxically, technique will become even more decisive, as it will stand as the basis upon which reading skills are built. Indeed, reading will only make a difference if you have minimum of conditions to play a balanced game. If your technique is poor or lacking purposeful variability, all will fall like a castle of cards. First and foremost, poorly developed technical skills will limit the number of options available in each situation, as decision-making is dependent on the players' actual ability to perform. Secondly, even for resources that players do possess, efficacy will likely be reduced if technique is not properly developed. Therefore, technical mistakes will inhibit such teams from performing at the highest level.

Notwithstanding, we are not suggesting a return to training roots, where technical training *per se* was predominant. Indeed, we are proposing quite the opposite. Our proposal implies practicing technique to a considerable extent, only under specific contexts, framing each technical variation within the problems where it might be useful. In this context, perhaps the original concept of skill comes in handy: a skill is not a predetermined movement; instead, it represents a solution to specific problems. So, any skill or technique will only make sense when framed by a certain problem or class of problems. And as the number and types of problems are expected to increase as game level rises, contextualized technique and, especially, a much wider and broader array of technical actions and variations will be required.

Concluding remarks

Volleyball has been evolving considerably, and not just considering an elite group of teams and countries, but very widely indeed. Today, many national championships, not to mention continental and world competitions (both for clubs and for national teams), are becoming highly competitive, and balanced sets and matches seem to be the rule. Believing this trend will continue, teams will be pushed to their limits, and every small detail will potentially make a difference between wins and losses. In addition, scouting is ubiquitous and increasingly meticulous and comprehensive. Put this two factors together, and matches will likely start being ever more dependent on individual actions. Reading skills will, at this point, be brought about to the limelight. In this article, we provided some theoretical grounding for this stance, as well as a few practical examples of how you can help your players developing such skills.

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AUTHOR REPORT

José Afonso has been a volleyball coach for 17 years now (level III), having worked with all age groups, from under-10 minivolleyball to adults (1st division). Along this path, he has conquered 4 national championships, 1 Portuguese Cup, 7 regional championships, and has made its way into 15 national finals. For two seasons he was the Head Coach of the Regional Team of Minivolleyball (Boys), and for two seasons was Assistant Coach of the U-18 Girls National Team. He was awarded Coach of the Year twice (2010-11, Youth - Girls, Portuguese Association of Volleyball Coaches; 2013-14, Female, Oporto Volleyball Association). A Ph.D. in Sports Sciences, he is a Professor at the Faculty of Sport of the Oporto University.

António Guerra has been a volleyball coach for 27 years now (level III). Besides having won 4 National Championships, 3 Portuguese Cups, 3 Super Cups, and having participated in 6 European Club competitions, he has been either Head Coach or Assistant Coach of Portuguese National Teams since 1994, including a 9th place at the 1999 Youth Girls World Championship and an 8th place at the 2002 Men's World Championship. He also participated in four World Leagues. Holding a degree in Sport and Physical Education, he is currently the Head Coach of the National Youth Boys Team and works at the Department of Formation at the Portuguese Volleyball Federation.