The Foundations of Tactics and Strategy in Team Sports

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The debate regarding the teaching of sport and games appears to be more complex than a matter of technical versus tactical approaches. The authors identify facets of the debate. One of these facets concerns the undifferentiated use of the terms tactics and strategy. The authors argue that these two concepts need to be clarified if decision-making and critical-thinking are to be encouraged on the part of the students. A framework is put forward for the analysis of the functioning of team sports. The framework includes: (a) an overview of the internal logic of team sports based on two essential features, the rapport of strength and the competency network; (b) an operational definition of strategy and tactics as they relate to the internal logic of team sports; and (c) nine principles underlying tactics and strategy and presented as potential guides for teachers and students in the teaching-learning of team sports and games.

In all elementary and secondary school physical education curricula, games and sports occupy a significant and sometimes major place. As evidenced by several articles published in recent years in the Journal of Physical Education, Recreation and Dance (Berkowitz, 1996; Butler, 1996, 1997; Chandler, 1996; Chandler & Mitchell, 1990; Doolittle & Girard, 1991; Griffin, 1996; Mitchell, 1996; Rauschenbach, 1996; Turner, 1996; Werner, 1989; Werner & Almond, 1990; Werner, Thorpe, & Bunker, 1996), the Journal of Teaching in Physical Education (Rink, 1996), and Quest (Gréhaigne & Godbout, 1995; Turner & Martinek, 1995), there is a renewed interest in the teaching of games and sports. The proposal of the Teaching Games For Understanding (TGFU) model (Thorpe, Bunker, & Almond, 1986; Werner et al., 1996) brings to light a debate concerning the respective importance and place of techniques and tactics in the learning of games and sports. A traditional view of teaching games and sports has been to insure, first, in drill contexts, the mastery of a series of motor skills (techniques) seen as fundamental for the practice of the activity, and second, a progressive introduction to tactics in...
game contexts. The TGFU model proposes that priority be given to the understanding and learning of tactics related to a game or a sport and that specific technical skills be worked on when the need is perceived by the students (Werner, 1989; Werner et al., 1996).

The purpose of this paper is to hopefully enrich the debate by offering a framework for research and discussion on the analysis and teaching of team sports and games. More specifically, the authors wish (a) to identify various facets of the present debate as it relates to team sports and games; (b) to discuss two fundamental features of team sports and games, namely the rapport of strength and the competency networks; (c) to differentiate the notions of strategy and tactics; and (d) to examine various principles related to the rapport of strength and the competency networks and underlying strategy and tactics. The authors' intent is to encourage a debate among physical education researchers on the subject matter per se concerning the nature and the various aspects of opposition and cooperation in games and sports. Hopefully, this will prove to be worthwhile in the pursuit of the discussion on the teaching of these activities (Chandler, 1996).

Various Facets of the Debate

As cited earlier, numerous authors have discussed in recent years the teaching and learning of team sports. Different ideas, opinions, and perspectives have been presented. Going over that body of literature, one comes to realize that in fact the debate bears many facets. Although it may not be appropriate nor even possible to consider all of them simultaneously when writing about the teaching and learning of team sports, it seems relevant to recognize them in order to eventually delineate the limits of any given discussion on the subject and avoid confusion or misinterpretations. At this point, the authors have identified four aspects or facets of the debate that ought to be recognized.

Obviously the most prominent facet concerns the respective contribution of the tactical and the technical approaches to teaching games and sports. Throughout winter and spring 1996, the Journal of Physical Education, Recreation and Dance published a series of papers intended to define the Teaching Games For Understanding model and to discuss its advantages and difficulties (Berkowitz, 1996; Chandler, 1996; Griffin, 1996; Rauschenbach, 1996; Turner, 1996; Werner et al., 1996). In the summer of the same year, the Journal of Teaching in Physical Education published an entire monograph discussing tactical and skill approaches to teaching sports and games from a research perspective (Rink, 1996). Very recently, Griffin, Mitchell, and Oslin (1997) published Teaching Sport Concepts and Skills: A Tactical Games Approach. A succinct analysis of the British and French physical education literature shows that the debate has also been going on overseas for some time (Bayer, 1979; Bouthier, 1984, 1988; Deleplace, 1979; Gréhaigne, 1989; Malho, 1969 [original work in German]; Mérand, 1977, 1984; Stein, 1981; Teodorescu, 1965 [original work in Romanian]; Thorpe & Bunker, 1983; Thorpe et al., 1986).

A second facet of the debate concerns the underlying learning conception associated with the tactical approach. As more specifically alluded to by Gréhaigne and Godbout (1995), Rink, French, and Graham (1996), and Rink, French, and Tjedermsa (1996), the tactical approach to teaching games and sports makes it necessary to consider the use of indirect and (or) direct teaching strategies in light
of a constructivist versus a strictly cognitivist perspective of the teaching–learning process. Grossly summarized, the choices seem to be the following:

1. To propose to students the reproduction of the tactical skill that applies in a specific situation. Such an option, referred to as direct teaching, would be typical of a subject matter–centered teaching approach.

2. To propose to students the discovery of the tactical skill that applies in a specific situation. Such an option would be associated with an indirect teaching approach, combining both a subject matter–centered and a student-centered approach. It could be referred to as an empiricist constructivist approach to teaching (Cobb, 1986) which considers that knowledge is an external reality and exists independently of the student’s cognitive activity.

3. To propose to students the construction of suitable personal tactical skills that apply in a specific situation (there may be more than one from the student’s point of view). Such an option, also referred to as indirect teaching, would be associated with a radical constructivist approach (Cobb, 1986) which contends that the knowledge constructed by the student is the result of the interaction between his or her cognitive activity and reality (Gréhaigne & Godbout, 1995; Piaget, 1974).

A third aspect of the debate has been very briefly alluded to by Chandler (1996) who stressed the importance of pedagogical content knowledge, the result of a process referred to by French pedagogical researchers as transposition didactique (Amade-Escot, 1996; Marsenach & Amade-Escot, 1993; Terrisse, 1998). This process can be described as (a) the transposition from theoretical knowledge to teachable knowledge and (b) the transposition from teachable knowledge to the knowledge effectively taught. This is similar to what Shulman (1987) has described as the transformation of the content knowledge by teachers. Whatever the teaching strategy adopted by a teacher, learning situations are neither planned nor presented at random to students throughout a lesson or a teaching unit. Thus, the content and evolution of these learning situations will likely differ depending upon the teaching strategy implemented. Numerous examples of didactic transposition applied to the teaching of team sports have been published recently (e.g., Gréhaigne & Godbout, 1997; Griffin et al., 1997; Werner et al., 1996). In association with didactic transposition, choices will also be made in terms of assessment practices; this in itself could eventually become, if it is not already, another aspect of the debate (Gréhaigne & Godbout, 1998; Gréhaigne, Godbout, & Bouthier, 1997; Mitchell, Oslin, & Griffin, 1995; Oslin, Mitchell, & Griffin, 1998; Rink, French, & Tjeerdsma, 1996; Werner et al., 1996).

In addition, the quality of any didactic treatment of a subject matter may rest in the first place in the development and the precision of the various components of the subject matter itself. Hence, the fourth facet of the debate is the pertinence and importance of examining and clarifying the various concepts associated particularly with the tactical and strategic aspects of games and sports. As mentioned earlier, there have been numerous papers published in recent years concerning various aspects of the Teaching Games For Understanding model. Given what has been written so far, no one would question the fact that the terms tactics and strategy are quite fundamental with respect to the nature and the teaching of games and sports. Throughout some papers, authors adhere faithfully to the notion of tactics without referring to strategy (Berkowitz, 1996; Griffin, 1996; Mitchell, 1996; Werner et al., 1996). Few authors (Chandler, 1996) give preference to the notion of strat-
egy. In many cases (e.g., McPherson, 1994; Rauschenbach, 1996; Rink, French, & Tjerdema, 1996; Turner, 1996; Werner, 1989), the terms tactics and strategy appear to be completely confounded, both terms being used in the same paper, in the same paragraph, or even in the same sentence without prior definition.

When reading Good’s discussion about the teaching-for-understanding perspective (Good, 1996), one realizes that critical thinking underlies the students’ mediation of the subject matter. According to McBride (1991), critical thinking in physical education may be defined as “reflective thinking that is used to make reasonable and definable decisions about movement tasks or challenges” (p. 115). If teachers are to encourage critical thinking on the part of their students during the teaching of games and sports (Schwager & Labate, 1993), they should use clearly delineated concepts so that the students know exactly what they are talking about and vice versa. As McBride (1991) has written, “Inherent to the [critical-thinking] process is the ability to organize thoughts clearly and to articulate them concisely and perspicuously. Precision of thought has long been seen as a key attribute of higher order thinking” (p. 117). This is why teachers and students alike should have clear notions of what is meant when the terms strategy and tactics come up in their discussions about team sports and games.

As time goes on and additional papers or books are written on the subject, it is likely that other facets will emerge from the debate. For the time being, the authors feel that the facets presented above and summarized in Figure 1 may help understand particular points of view presented in the literature. In Figure 1, the central horizontal axis illustrates the first facet of the debate concerning a focus on technical or tactical learning of team sports. The central vertical axis illustrates for its part the second facet of the debate concerning the use of indirect or direct teaching. Whatever the choice made with regards to the first two facets of the debate, the subject matter must be transformed into pedagogical content knowledge (didactic transposition) taking into account the characteristics of the students. At times, there may be a need for clarification of some aspect of the subject matter itself, hence the fourth facet of the debate concerning the notion of tactics and strategy.

![Figure 1 — Didactic choices at the teacher's disposal.](image-url)
The Internal Logic of Invasion Team Sports

It is not the intent of this paper to discuss at length the intrinsic nature of sport but in order to better examine and contrast the notions of strategy and tactics, it seems necessary to draw the reader’s attention onto some fundamental characteristics of team sports. In an attempt to circumscribe the essence of team sports, Gréhaigne and Godbout (1995) have written that “in an opposition relationship, each of two teams must coordinate its actions in order to recover, conserve, and move the ball so as to bring it in the scoring zone and effectively score” (p. 492). Metzler (1987) describes the essence of team sports as being a matter of “resolving in action, many together and simultaneously, series of problems not foreseen a priori as to the order in which they will appear, their frequency and their complexity. And all this in order to resolve in a contradictory way, in the same action, the attack on the adverse camp and the defense of his own camp” (p. 144).

From these two excerpts one can hold four notions that are central to the topic of this paper: opposition to opponents, cooperation with partners, attack on the adverse camp, and defense of one’s own camp. Whatever team sport is concerned, each of these four elements is at play, but the complexity of their interaction may vary depending upon the category of sport involved (Almond, 1986b; Werner, 1989). For instance, in baseball, a fielding, run-scoring type of team sport, attack and defense are two separate phases in a given inning. In invasion games, the four elements are at play at the same time. Expressed in a nutshell, the idea for each player is to cooperate with partners in order to better oppose the opponents either while attacking (keeping one’s defense in mind) or while defending (getting ready to attack) (Gréhaigne et al., 1997). Given that two teams play in opposition, a systemic view of team sports brings us to consider two main organizational levels: the match, related to the rapport of strength, and the team, related to the competency network. (For more details concerning a systemic analysis of team sports, see Gréhaigne & Godbout, 1995, and Gréhaigne, Bouthier, & David, 1997.)

The Rapport of Strength

In invasion games, the internal logic of the play has its source in the opposition relationship that generates, during each sequence of play, a dynamics of movement from one target to the other. We call this opposition relationship the rapport of strength. It refers to the “antagonist links existing between several players or groups of players confronted by virtue of certain rules of a game that determine a pattern of interaction” (Gréhaigne, Godbout et al., 1997, p. 516). At all instants, the possession of the ball can change and the direction of play inverts. This fact imposes on both teams an organization where location, movement, and replacement (general move generated by the opposition in the depth of the pitch) are elements simultaneously considered for responding to this reversibility (Gréhaigne, Bouthier et al., 1997).

In this general move, the ball carrier is faced with two interrelated decisions of play. A first is centered around two possibilities: to go directly to the target in order to shoot or to move the ball closer to the target (complementary move in the depth). The second is linked to the rapport between the width of the pitch and the number of players that each team can use in this part of the field. It creates, on the way to the target, the alternative of running or passing on one side or the other (moves in the width in order to bypass coming opponents).
These target-oriented dynamics, which entails various shapes of moving and (or) shooting according to the available depth and to the orientation of the play widthwise, constitute the soul of any lively play. This is true whatever the particular structure of a sport that determines its primary rules (how the game is played and how winning can be achieved [Almond, 1986a]), whatever the surface of play, and whatever the characteristics of the targets. The potential for reversibility of the general move at any instant, in both dimensions (depth and width), is a major characteristic of the internal logic of the rapport of strength. One must bear this fact in mind. The organization in response to the reversibility of the general move implies, for each team, a collective frame of reference that all players must stay aware of. At the same time, everyone must be capable of initiatives that one's teammates can decode to react accordingly or can even anticipate. This double dimension of a collective frame of reference strongly linked to individual initiative is fundamental in team sports. This fact is often overlooked.

As mentioned earlier, the rapport of strength may be associated with the "organizational level match" (Gréhaigne & Godbout, 1995, p. 493). It is then interpreted as two teams facing one another. But in fact, during the game, the global opposition relationship breaks down into partial opposition relationships. These opposition settings that momentarily involve some of the players generate a particular shape of play representing the "organizational level partial forefront" (see Figure 2). At any moment of the match, this partial forefront contains a third-level opposition unit that links the ball holder and his or her direct opponent. This is called "primary organizational level" (Gréhaigne, 1992a). Figure 2 illustrates these last two organizational levels, whereas the drawing of the whole field would represent the "organizational level match."

Thus the rapport of strength may be looked at as involving two teams, two sub-groups of players, or eventually two specific players. The continuity of opposition influences the opponents' moves not only at the one-to-one level, but at the

Figure 2 — Partial forefront and primary organizational levels.
partial forefront level and at the match level as well. These simultaneous interlocked opposition settings constitute the context of play (Deleplace, 1979). They evolve in reciprocal rapport in response to the evolution of any part of the system. At any specific moment, according to the evolution of play, this reciprocity relationship offers, for example, a specific problem to attackers but, at the same time, contains pertinent solutions for conducting the action: (a) to continue the action at the one-to-one level; or (b) to pursue the attack with the help of partners in the partial forefront; or (c) to change the general move by transforming its shape, its orientation, or even both. Thus, the continual reciprocity relationship between the three organizational levels constitutes the second major characteristic of the internal logic of the rapport of strength (Deleplace, 1966).

As one can see, the general dynamics of team sports can be expressed as a rapport of strength where, in a sense, two networks of forces are confronted one to the other. This fact implies the consideration of a second frame of analysis, that of the "organizational level team" (Gréhaigne & Godbout, 1995, p. 494).

**The Competency Network**

At the "organizational level team," the numerous interrelations between players and within the team make up what one might call a competency network (Gréhaigne, 1992b). Although based on each player's recognized strengths and weaknesses with reference to the practice of the sport, and also on the group's dynamism, the competency network is more a dynamical concept than a static one. In general, it refers to the student's game-related conducts and behaviors that one can identify in connection with a rapport of forces or with each player's status within the team. Such conducts and behaviors vary depending upon players, moments, external factors, and the particular team sport involved. During play, in connection with conducts and behaviors, the notion of role is essential for analyzing the competency network. In this case, role refers to conducts and behaviors that convey (a) what a player thinks he or she ought to do, given the way he or she experiences the rapport of forces or competency network within the team, and (b) how the player manages his or her resources in this system of constraints.

The function within the group, chosen by the player, or assigned by the teacher or by the group, is another indicator of the player's position in the team's dynamism. At the interface of the player's logic, the team's logic, and the internal logic of the sport involved, the player's function in this competency network often is a reliable indicator of the reciprocal rapport between this player and the team. Contrary to what one might think at times, cooperation in team sports, as in other aspects of life, goes far beyond simple goodwill and an easy-going way of looking at sport. For the competency network to be at its peak, there is a need for both efforts and restraints on the part of many players, if not all of them.

In conclusion, from a systemic point of view, one could consider a team sport as the functioning of two competency networks involved in a rapport of strength. It should then be clear for the reader that the very existence of both the rapport of strength between opponents and of the competency network within each team makes it necessary, for each team, to try to anticipate the opponents' attacks and ways of defense and plan accordingly its offensive and defensive action. It also becomes useful for each team and each player to reflect on the efficacy of decisions made during the encounter itself, depending upon one's partners' or opponents' behaviors. In this sense, it thus appears necessary to explore the notions of tactics and strategy.
Tactics and Strategy

In a different context but in view of victory as well, the terms strategy and tactics have been used for a long time in the war vocabulary. According to Von Clausewitz (1898/1832), the strategist determines, for the whole act of war, a goal corresponding to the object of war. He sets up a war design compatible with the resources of the State, elaborates the plan of the different campaigns, organizes the engagements of each of them, combines actions of the military forces, and organizes them into systems to preserve their coherence. Von Clausewitz adds that for the strategist, any conflict calls into play physical, mental, and moral factors that constitute "a surprising trinity." The problem then consists of maintaining reflection or theory at the center of these three tendencies as if it were suspended between three magnets. For his part, the tactician focuses on a more limited, concrete, and generally, geographic objective that is adapted to the strategic plans. The tactician conducts the battle, the operation in sight, adapting the action, combining maneuvers, deciding on the engagement of the different means of combat. Von Clausewitz points out the relative subordination of the latter to the former. The strategist takes time into account and accompanies the tactician on the field.

Similarly, the European school of team sports makes a distinction between strategy and tactics. For Bouthier (1988), strategy refers to all plans, principles of play, or action guidelines decided upon before a match in order to organize the activity of the team and the players during the game. The finalized strategy may either concern the major general options of play or specify the intervention of players for different categories of play. For their part, tactics involve all orientation operations voluntarily executed during the game by the players in order to adapt, to the immediate requirements of an ever-changing opposition, their spontaneous actions, or those organized through the predetermined strategy. Similarly, for Gréhaigne and Godbout (1995),

strategy refers to these elements discussed in advance in order for the team to organize itself. Tactics are a punctual adaptation to new configurations of play and to the circulation of the ball; they are therefore an adaptation to opposition. As discussed by Gréhaigne (1994), strategy concerns (a) the general order, i.e., the outside order form resulting from the general strategic choices of the team (e.g., background play, team composition), and (b) the positions to be covered according to particular instructions each player receives in training (assigned position). For their part, tactics relate to (a) the positions taken in reaction to an adversary in a game situation (effective position), and (b) the adaptation of the team to the conditions of play (flexibility). (p. 491)

There is a fundamental difference between strategy and tactics as far as their relationship with time is concerned. Strategy is associated with more elaborate cognitive processes as the decisions made are based on reflection without time constraints. Tactics operate under strong time constraints. In learning setups, one can use both strategic and tactical aspects of the game whenever temporal pressure is reduced. During regular play, especially for players near the ball (partial forefront and primary organizational levels), tactics are paramount. Thus, progress in team sports may be seen as follows: (a) given an equivalent rapport of strength and similar configurations of play, to perform the same actions faster or to solve problems
brought about by a higher temporal-pressure type of play or (b) given identical
time to perform more complex actions.

It is obvious that players can choose to perform only what they know how to
do or can do. But performance in team sports appears to be determined by the most
appropriate choice among the various solutions at the players’ disposal and by the
speed of this decision-making. In this context, it seems that play action is eventually
determined by a strategy that needs to be specified, if not modified, during
play. While strategic aspects rely on the conception of the game, tactical aspects
are fundamental to regulation during play, since they are based on successive deci-
sions taken according to the evolution of the action. When players get away from
action, they can focus both on the strategic and tactical aspects of their game be-
cause they have more time at their disposal.

Consequently, efficiency during play has nothing to do with a series of dissoci-
ated behaviors. It relies on efficient-action rules and play-organization rules (Gréhaigne
& Godbout, 1995) that regulate strategic and tactical choices without being conscious
nor directly observable. However, the existence of such rules appears to be confirmed
by the fact that the subject can adapt to many configurations of play and, eventually,
state the rule or rules on which a solution was based. When teachers or researchers ask
students, “What strategy did you use on that point?” (French, Werner, Taylor, Hussey,
& Jones, 1996, p. 446), they are in fact trying to elicit the more or less explicit formul-
ation of such rules. Coming back to play efficiency, one might say that tactical effi-
ciency is a generative capacity likely to produce infinite tactical behaviors in response
to infinite new configurations of play.

One must however differentiate two aspects of play: the unfolding of a static
phase (a set play) and the use of tactics in an unexpected play (Bouthier, 1988). A
static phase is made up of one or many schema of play. A schema of play, for its
part, consists in pre-established sequences of action, linked in a specific order, and
set in motion at a given signal. Thus, a set play is a program of actions. Tactics, on
the contrary, build up during action, altering the players’ perception of information
and their considered moves according to the lessons they draw from the events of
the game. They imply, for the player, a capacity for using both determinism and
random occurrences. On an individual basis, tactics may be defined as a subject’s
own operating system during play; in order to fulfill his or her role, the player tries
to submit as little as possible to the restraints, the uncertainties, and the hazards of
the game while using them as much as possible.

A program is predetermined in its operations, and in this sense, it is auto-
matic. Tactics are predetermined in their end result but not in all their operations,
even though they must have numerous automatisms at their disposal in order to
function properly. The program is put to use when there is little choice or little
chance at play, or when it is simply necessary to play faster than the opponent. On
the other hand, tactics and strategy can only emerge at a conscious level where one
finds choices available, faces unexpected events and has the possibility of finding
solutions to these new situations. Figure 3 summarizes the main features of stra-
egy, tactics, and schema of play.

Tactical efficiency implies the capacity of deciding, and deciding fast, and
this capacity itself rests upon the ability to conceive solutions. Thus, tactical deci-
sion making requires knowledge. When tactics are operating, cognitive processes
serve to extract information from play, to draw an adequate representation of the
situation, to weight contingencies, and to elaborate action scenarios. The resulting
operative knowledge of configurations of play allows players to recognize restraints, regularities, and constants, and hence to capture and question the unexpected event—that is, transform it into information. In a sense, tactical knowledge uses certainty, stability, and constancy to recognize and solve unexpected configurations of play.

Strategy and tactics encompass a vast number of potential decisions and actions regarding offense or defense, and it is not the intent of this paper to analyze them at length. While discussing the teaching and learning of team sports, some authors have come up with categories of tactical and (or) strategic knowledge (Gréhaigne & Godbout, 1995; Mitchell, 1996; Werner, 1989) that may be of interest to readers concerned with the substance of pedagogical content knowledge in team sports. In this paper, the authors have elected to consider some basic principles that may help focus the students' attention while they are discussing or considering a strategy to be implemented, or reflecting on successful or unsuccessful tactical choices. Those principles may also guide a coach when preparing the team for a match or help a teacher plan a teaching unit.

Some Principles Underlying Strategy and Tactics

None of the principles presented below relates to specific maneuvers on the part of the players. In a way, one might say that they emerge from the internal logic of invasion team sports discussed earlier. Some are linked to the rapport of strength, others, to the competency network, but all serve the same general purpose: overcoming the opponents in view of victory. For the sake of clarity and generalization, they are examined separately and in general terms; in the reality of the game, it is their combination and contextualization that generate success. At times, certain principles may seem to apply more to strategy and others to tactics, but each one of them should be seen as eventually bearing consequences for both aspects of the game.

The Deception Principle. This means to deceive and bring the opponent to make a mistake, a bad move. In team sports, this principle is used at all levels on a collective or individual basis. Everyone knows that on an individual basis, numerous players make use of feints in order to wrong-foot and outwit their direct opponent.
Deception is also possible on a collective basis, but it requires a great deal of collusion between players, for instance, to organize defense in such a way that the ball carrier will have a shot angle at the goals but only this one. Then the goal keeper knows that the shot can only come from this direction.

**The Surprise Principle.** It is the most used principle when a team attacks with several interlocked sequences of play. A winger who progresses on the outskirts on the opposite side of the ball at the opponent's back hopes not to be seen and, thus, is obviously counting on a surprise effect. This principle is closely related to the Mobility and Opportunity Principles. Whereas the Surprise Principle implies using unexpected actions, the Deception Principle, which may seem similar, leads the opponents to act wrongly or to misinterpret the configurations of play.

**The Mobility Principle.** Positional attack, based on continuity of play, requires preparatory maneuvers before the attack can be launched. Through fast shifting and good circulation of the ball, attackers may induce, in a given spot of the attack zone, a break-down point in the state of equilibrium between the two teams and thus facilitate a shot on goal.

**The Opportunity Principle.** Taking advantage of the opponents' mistakes is such an obvious principle that it does not deserve further development. Still, one must see the mistake and seize the opportunity.

**The Cohesion Principle.** For a team's action objective to be achieved, there is a need for coherence of action from its conception through its execution; this requires the application of the Cohesion Principle on the team's part. All players must play in harmony, everyone playing his or her part. Consequently, the logical, rational aspects of thoughts and actions cannot ignore the affective counterpart of the cohesion principle, that of adhesion. Depending upon teams and pursued objectives, this enduring cohesion may bear a higher or a lesser energy cost for maintaining the group. At times, this maintenance cost may be at the expense of the productivity energy required by the confrontation with the other team.

**The Competency Principle.** Coherence and cohesion are obtained, in part, through the competency network that entails different roles and functions among players. In this way, the whole acquires a certain homogeneity that makes it possible to lower the maintenance energy cost. Indeed, competency at all levels at all positions brings about, in the relationships between players of the same team, a feeling of trust, an affective counterpart based on mutually recognized capacities.

**The Reserve Principle.** A support organization of play, for example, is based on this principle. A support player is, before anything else, the player by whom the attack may be immediately restarted when a maneuver has failed. In soccer, having the forwards carry the ball makes it possible to distribute other players and constitute a reserve along the longitudinal axis of play.

**The Economy Principle.** The dynamics of reciprocal attacks, linked to scoring or to the loss of the ball, leads sometimes to a result (a score) that may call for a change of objective in the cases of both the winning and losing team. For instance, simply keeping ahead in the score, instead of increasing one's advantage, brings about a change in the spirit of the play and in the attack principles. It is no longer a matter of taking initiatives in view of scoring, but rather of taking initiatives in view of keeping the ball without denying the play. This is what we call the Economy Principle. Whether or not the use of this principle is desirable in physical education classes is another matter related to the teaching-learning process per se. It should be noted that applying the Economy Principle forces a team, a group of players, or a specific player to con-
sider strategic, tactical, or technical choices, as well as their cost. In this perspective, one may also think that, all things considered, it is better not to change one's game and that the cost of the successive opponents' offensive maneuvers will be proved enough to make their actions less and less efficient.

The Improvement Principle. Before a match, on the basis of a subjective estimate of the rapport of strength, players select or elaborate consistent systems of play they will implement (execution phase) with whatever tactical and technical abilities they possess at the time. At this level, technical progress is subordinated to the systems of play in relation with the estimated rapport of strength and the selected strategic principles. A deeper knowledge of and a higher degree of integration with the implemented systems of play may make it easier for a player to decode the opponents' and the partners' play and, thus, to act faster. But this gain, obtained through automation, may be counterbalanced by the opponent's knowledge. Indeed, the opponent may in turn, through a similar fast decoding of the play, offer a more attuned opposition to the player's actions. A progress dynamics then sets in, and players attempt to surpass the present stage of execution in order to outwit the opponents.

Conclusion

The elements discussed in this paper, namely the internal logic of team sports, the notions of strategy and tactics, and some underlying principles, are but one aspect of the whole matter of teaching team sports and games. As pointed out earlier (see Figure 1), there are various facets to the present discussion about how team sports and games ought to be taught. It was not the authors' intent to discuss at length each of these facets, for each discussion would require considerable development. The fact that the focus was put on the internal logic of team sports and its consequences for the notions of strategy and tactics (the fourth facet of the debate) merely reflects the authors' opinion that before exposing students to the subject matter (in this instance, team sports), and thus planning learning situations (didactic transposition), teachers should make sure that the concepts of strategy and tactics are clearly delimited.

Key elements to be remembered by the teacher (and eventually perceived, understood, and integrated by the students) are as follows:

1. Team sports and games, by essence, involve a rapport of strength, or an opposition relationship, between two teams and therefore their respective members.
2. In such a rapport of strength, the efficient functioning of each team relies on the understanding and appropriate management of its competency network.
3. Winning implies defeating the opponents. With that objective in mind, it is only natural to think about and choose appropriate maneuvers to insure victory. Strategy will then refer to elements discussed in advance in order for the team to organize itself with respect to attack and (or) defense. Tactics, for their part, refer to specific choices made by a group of players or individual players during the game in order to outwit the opponents.
4. Various principles pertaining to the internal logic of team sports and games may help the players focus on specific strategies and tactics.

The fact that this paper has focused on an attempt to clarify the concepts of tactics and strategy in team sports should not be interpreted as a denial of the
pertinence of including, when appropriate, the teaching-learning of technical skills. As pointed out in Figure 3, players' tactical choices are made in connection with the technical skills they can perform. It follows that for certain new tactics to be used, there will be a need for the development or the improvement of certain motor skills. Those are part of the general subject matter encompassing team sports and games and must also be eventually subjected to didactic transposition. Also, the fact that, at least implicitly, this discussion has favored a constructivist student-centered approach (Gréhaigne & Godbaut, 1995) does not mean there is no room for some form of direct teaching. The two central axes shown in Figure 1 should be considered more so as two continua than two dichotomies. Thus an extreme position of each continuum may not represent the pedagogical choice of most teachers.

While discussing the internal logic of team sports, the authors have pointed out very briefly the possibility, for players, to anticipate their partners' play. The process of anticipation and its consequences on decision-making (Bouthier, 1989) have not been discussed in this paper but should eventually be examined in relation with partners and opponents as well because of their impact on tactics and strategy (Deleplace, 1979).

Finally, the war terminology analogy is not meant to suggest that team sports be viewed as a form of combat. Efficiency is an unavoidable aspect of the game and plays a central role in team sports as in any sport. Most of the time, the result of a match determines the winner and loser. Team sports must nevertheless remain a courteous and codified assault in which the presence of a referee, through his or her regulative function, reduces considerably the hazardous nature of a warlike confrontation (Gréhaigne, 1996). Also, in educational contexts, the search for fair conditions of play (such as reasonably balanced teams) should constitute a background against which to select the learning objectives and the teaching procedures indicated in Figure 3. Looking for the most efficient strategies and tactics should not lead to a victory-at-all-cost attitude. In this sense, the rightful place of ethics in the teaching of team sports and games needs to be considered.

References


