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Promoting artistic quality in rhythmic gymnastics: a didactic analysis from high performance to school practice

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Abstract

In France, the curricula for physical education (PE) place gymnastic activities in a set of competences named "Achieving a corporal performance for artistic and acrobatic aims", alongside dance and circus arts. What place does Artistic occupy in gymnastic activities? Is an aesthetic gesture sufficient to be considered as part of an artistic activity? Defining the term «Artistic» is difficult in the field of sports, as descriptions usually come from the technique/Artistic dichotomy. Our analysis focuses on rhythmic gymnastics (RG), which is precisely seen as emblematic of this technique/Artistic division: on the one hand, technical rigor, prescriptions and rules; on the other hand, grace, creation and self-expression. We believe such compartmentalized categories are too schematic to define gymnasts' and students' activities, so we will examine their articulation points. We first present an overview of RG as a school practice in ordinary forms of teaching, then an historical analysis of RG as a sports practice, to highlight the unbridgeable gap between both school and sports practices, regarding technique/Artistic connections. We then propose three significant points of articulation (called games) closely combining technical requirements and artistic commitment. We consider that the variation of the three games played in GR (creating, making beautiful, representing) is the product of historical dynamics of this sport we call artistic. Finally, on this basis, we propose a learning game for novice students promoting the artistic quality of RG practice.

KEY WORDS: Technique/Artistic; RG; Game rule; Learning game; Artistic game.

Introduction

In France, the curricula for physical education (PE) place gymnastic activities in a set of competences named "Achieving a corporal performance for artistic and acrobatic aims", alongside dance and circus arts¹⁻². What place does *Artistic*^a occupy in gymnastic activities? RG indeed has some artistic features, however we question their place in gymnastics activity. Is an aesthetic gesture sufficient to be considered as part of an *artistic* activity?

Defining artistic

The definitions of *Artistic* are multiple and differ depending on the authors (philosophers, sociologists, historians or artists, art critics, amateurs, etc.). Moreover the overall definitions given by students in university training programs are not unanimous: they range from formal aspects ("*Artistic is what is beautiful*"), expression of emotions ("*it is sensitivity,*

it communicates emotion"), representation of reality ("*it makes things visible*"), personal experience ("*it's creating something singular, personal*"), social relationships ("*it's an encounter with an audience*"), semiotic characteristics ("*it produces meaning, a message*"), political intention ("*it is the subversion of norms, negation, subversion*"). So rather than starting our analysis with an "a priori" complete definition of what Artistic is and then checking if it is confirmed in RG, we choose to begin with a broader and more inclusive approach, and then see what the analysis of RG practices reveals. We therefore proceed with a *pragmatic* study of Artistic (what is actually done by gymnasts or students in RG), seen as a human activity producing motor skills to elicit an aesthetic^b feeling (in the broad sense).

Defining the term "*Artistic*" is difficult in the field of sports, as descriptions usually come from the *technique/Artistic* dichotomy. It follows from two

main contrasting and often antinomic categories³: on the one hand, the prescriptive domain of *rules* and codes deemed rigorist, generally presented as immutable and limited, associated with physical performance and competition alone or *against* others; on the other hand, the creative domain of *being-in-itself* deemed sensitive, generally presented as unique and unlimited, associated with free self-expression and inventive activity alone or *with* others. From this point of view, rhythmic gymnastics is a sport emblematic of this *Artistic / technique* separation⁴.

Rhythmic gymnastics, a complex activity?

Defining rhythmic gymnastics is difficult to pin down. For the general public, RG often refers to several other activities, including the grace of dancing, juggling skills, or the technical rigor associated with gymnastics and sometimes eventually all these aspects combined, suggesting

that the definition of this sport is ambiguous. This ambiguity is also raised by RG teaching experts: for example in France, DELATTRE and PÉCHILLON⁵ characterize this type of gymnastics as a sport searching for an identity which “evolves in an either expressive or technical dimension, and hesitates between Artistic and gymnastics”⁵ (p.6). While recently the INTERNATIONAL GYMNASTICS FEDERATION (FIG)⁶ has intended to “reconcile art and sports”⁶, RG’s definition in ordinary school practices, still remains divided between both categories considered separately, *Artistic* (associated with dancing and singular bodily expression) and *technique* (associated with sports and rules to be respected). Considering that these isolated categories are too schematic to define gymnasts’ activity as well as students’ activity, we examine the points of articulation between both notions. In particular, we study their connections in RG knowledge contents to be taught in PE.

Theoretical framework

Research questions: what *game* are we playing in RG?

Our questions in the field of gymnastic activities consider equally expert gymnasts in RG and novice students in PE. What *game* are they playing in RG? What aspects of RG *game* are similar despite the differences between sports and school contexts? These questions do not refer to the expertise level of individuals, but seek to elucidate the nature of *games*, the stake and rules that give life and meaning to these *games*.

The theoretical model of *the game*

We model RG activity thanks to the notion of *game*, and seek to identify the *game* that engages people when they practice it⁷⁻⁹. In any *game*, people’s behaviors, far from being random, are conditioned by two dimensions:

1) a *stake*

Playing a game usually *entails winning or losing*. For what purpose do people play that way? What do they gain by playing this game? We need to clarify the issues and thus the gain of the game;

2) a set of *rules*

Playing a game requires the presence of constitutive rules, whether they are written and explicit (in the

article, we call them sports *regulations*) or actional and implicit (we call them *strategy*).

The notion of *game* associated with a *stake* and *rules* is interesting because it replaces advantageously the overly mechanical and rigid notions of task or exercise. Indeed, the term *game played* refers to dimensions both: 1) *psychological*, relating to children’s games (as described by psychologists PIAGET¹⁰, and WALLON¹¹) for their emotional aspects as in the expressions “getting caught up in the game”, and actual aspects as in “winning or losing the game”; and 2) *semiotic*, relating to what directs, in the background, the players’ actions as in the expression “having a sense of the game”, which also explains the reasons why one plays a given game (in reference to the use of the “language-game” by the philosopher Wittgenstein, presented by LAUGIER¹²). The model of the game is used to describe RG activity concerning *technical / artistic* links, based on the following questions: What game does one play in RG? What game do gymnasts or students play? What difference does it make to play an RG *artistic game* rather than a *technical one*?

In the next paragraph, we present the method used in our research. Then, following a description of RG as a school practice in its ordinary forms of teaching, we analyze RG as a sport practice in its historical evolutions.

Method

The corpus studied

Our corpus consists of two parts: 1) At school, students' *practices* in regular classes observed in secondary school (eleven to twelve-year olds) for two years (4 cycles of 10 lessons). This approach is based on a previous didactic research into RG usual teaching¹³; 2) At high level RG, judging *regulations* approved by the International Gymnastics Federation (FIG codes of points since 1963, date of publication of the first international code) and *gymnic practices* (competitive strategies of three gymnasts ranked at the highest international level, during the International Tournoi of Corbeil-Essonnes (France), regularly observed at each regulation change. From a historical standpoint, gymnasts who dominated RG mostly came from the USSR (up to 1992), Bulgaria, Hungary and Romania. After 1992, they mainly came from Russia, Bulgaria, Ukraine and Belarus¹⁴. This approach is based on a previous study of into the historical development of high level RG¹⁵.

The investigation of both corpora revolves around the same question: What steps are involved in organizing - either hierarchically or fluidly - the technical / artistic dimensions? We have previously defined them as follows: 1) "technical" refers to the codified difficulties, in accordance with the dated codes; 2) "artistic" refers to the creation of elements from musical, dramatic, pictorial, poetic or danced works. We seek to identify the nature and meaning of gymnastic movements that make the GR productions lean toward one of the poles, technical / artistic, or combine the two poles.

Categorization of data and observation of regularities

Sports data

First we consider sports practices. To analyze them, we characterize precisely six major coding steps:

a) Developing a grid of observable behaviors.

The study of the gymnasts' routines consists of describing: 1) body and apparatus elements officially codified and hierarchized in terms of "difficulties" (reference to FIG code in each era studied); 2) movements and gestures borrowed from danced practices linked to a musical score, identified and classified according to their artistic content and style, that is to say in connection with

the production and the evocation of beauty. At this point, we precisely observe the use of "free body segments" (arms, bust, head, hand, etc.). By "free segments," we mean the parts of the body freed from tasks of direct intervention on apparatus (eg, non-manipulative hand), or tasks of displacements on gymnastic mat, or from codified body difficulties.

We develop below the encoding of artistic data, using two sets of criteria: a) motor organization of the movement, inspired by the Labanotation¹⁶ and legitimized in the work of Choreographic National Centres¹⁷: a1) relation to space; a2) relation to rhythm; a3) relation to flow (or energy); a4) relation to gravity (or weight), and b) perceptual organization of the movement, inspired by neuroscience analyses¹⁸⁻¹⁹: b1) tactile information indices; and b2) visual information indices.

A set of sub-questions specifies each criterion: a1) What parameters are related to the displacement space (orientation, direction, trajectory, distance) and to the body sphere (or "Kinesphère" constituting an icosahedron whose tops are the extreme points reached by body segments without moving)? What spatial shape is adopted by the whole body (turn, jump, balance position or wave) and / or by the body segments (arms, chest, head) when they are mobilizing? Moreover, what shape and trajectory are given to the apparatus (circle, spiral, eight movement)? Where, in what space is the apparatus moved in relation to the gymnast's body (front / back area, right / left sagittal plan, up / down horizontal plan)?; a2) What are the temporal characteristics of movement (tempo, accentuation, phrasing, speed, and relationship to music)? What is the "density" of the manipulation or trajectory of the apparatus in the air, that is to say the number of movements or "free" gestures performed during the "time of the apparatus" thrown the air?; a3) What kind of energy characterizes the movement (jerky or fluid, free or controlled)?; a4) What weight (eg to fight against, or surrender); b1) What various uses of the hands (eg when a single hand throws and receives the apparatus)? What do the hands do when other tactile contacts are in charge of manipulation tasks, assuming that they are not involved in floor support?; b2) In what way is the head freed of bodily actions and manipulation which are necessarily coordinated? For example, is there or not a permanent visual tracking of the apparatus during a throw? Does achieving body difficulties (rotation,

gyration, reversing) nevertheless allows a diversified use of gazes (eg to the audience)?

b) Scoring with regards to each historical code, and for all categories, the presence or absence of data relating to each criterion;

c) Comparing synchronously (with regards to each historical code) the contents of both technical / artistic dimensions, and variations for the different apparatus;

d) Comparing diachronically (throughout the different historical codes) the evolution identified for each criterion;

e) Noting all cases and moments of transformation of the technical / artistic relationship related to the modifications of regulations;

f) Examining the circumstances of the transformation, identifying if they are the result of exceptional measures or general dispositions, measuring if the gap is temporary or definitive.

From a linear and chronological encoding of data, we proceed to their storage in “data condensation matrices” that present information in a compact and orderly way²⁰. The study shows regularities and leads to findings that have a general scope, providing an overall meaning to data.

The findings are worked diachronically, and categorized according to three types of changes (as defined by Maunoury, cited by COMBARNOUS²¹: a) minor change or small intra-structural development; b) average change or reorganization of the structural

balance; c) major change or emergence of a new structural combination within which further progress will be sought. It should be noted that the term “structural” is used to describe the system of technical and artistic regularities observed through RG routines: understanding these regularities is equivalent to identifying a background that gives sense to these behaviors. For us, they coincide with the *game*, whether it is technical and/or artistic, that a gymnast plays at a certain point in her routine.

School data

Students’ routines in PE are described and categorized using the same method as sports data (except for the diachronic dimension). We describe: 1) bodily movements (“free hand elements”); 2) apparatus manipulations (“elements with apparatus”), completed by relational criteria; 3) interactions with partner(s); and 4) interactions with the audience. We resume the data encoding about both artistic and technical dimensions using the set of criteria mentioned above: a) motor organization of the movement, a1) relation to space; a2) relation to rhythm; a3) relation to flow (or energy); a4) relation to gravity (or weight), and b) perceptual organization of the movement: b1) tactile; and b2) visual. The data are accounted for each lesson that composes the four teaching-learning cycles observed “in situ”.

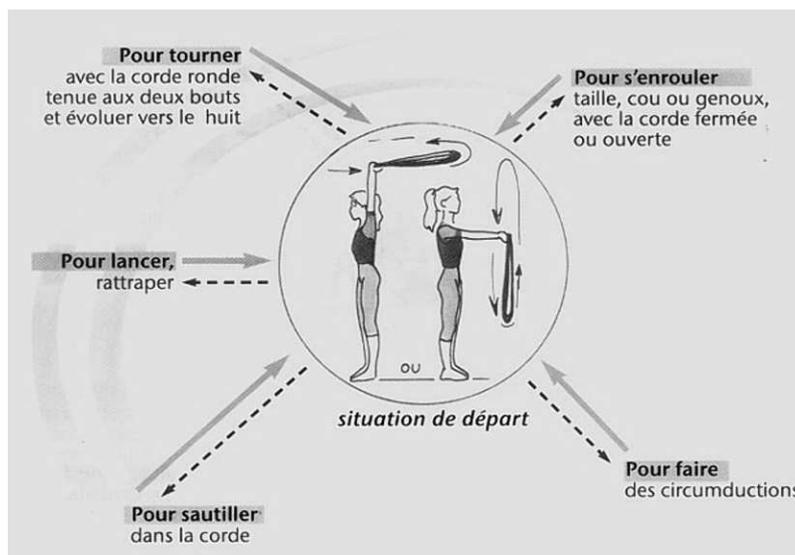
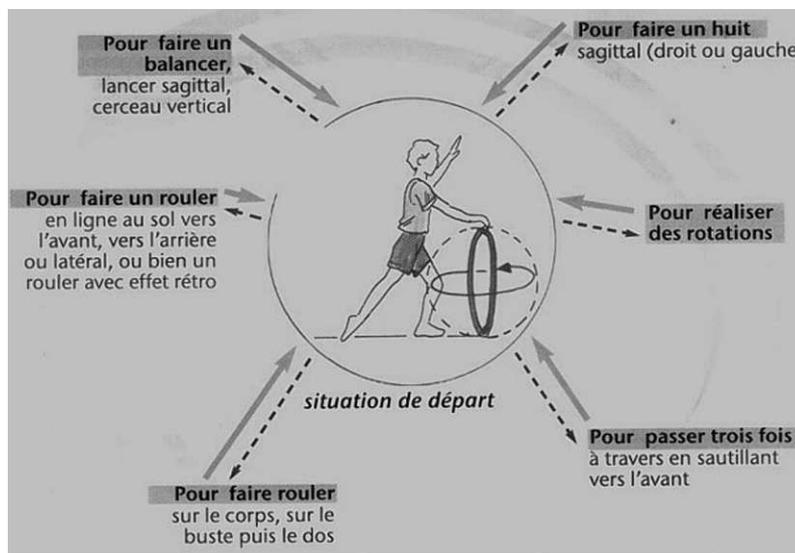
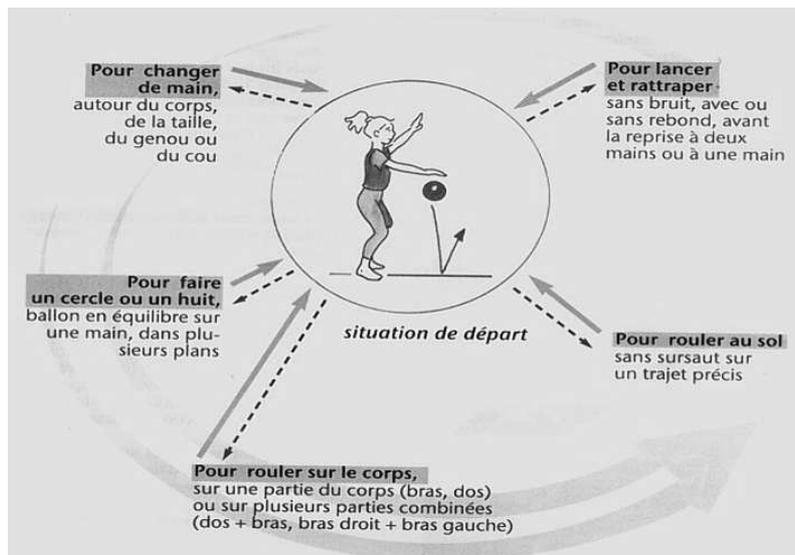
Results: what is the *Artistic* dimension involved in RG?

We describe RG, as we have already mentioned, in the school practice, in its ordinary teaching forms, and in the sport practice, in its historical evolutions. Appear significant differences. Using the model of the *game* we characterize, what we call, a gap between both, school and sports practices.

Knowledge contents usually taught in RG classes

Our study first highlights learning difficulties in novice students: clumsy apparatus handling, apparatus falling, partial bodily participation, chaotic and random movements, expressions of uncertainty and hesitation. The embarrassment

of students is often presented as the “nature of things”. Secondly, the analysis of usual teaching contents worked on in class shows that: 73% have to do with the apparatus manipulations (“elements with apparatus”), 18% with bodily movements (“free hand elements”), 6% with interactions with partner(s) and 3% with the representation for the audience (“artistic composition”). Moreover, this decreasing order of importance is also the order in which contents are presented to students: starting with the technical elements with the apparatus. These are also the techniques that are most often described in great detail in teachers’ manuals (for example, HELVIG and SENGER-PAPÉLIER²²) (FIGURE 1).



To be continued

FIGURE 1 - Inventory of the RG apparatus manipulations²².

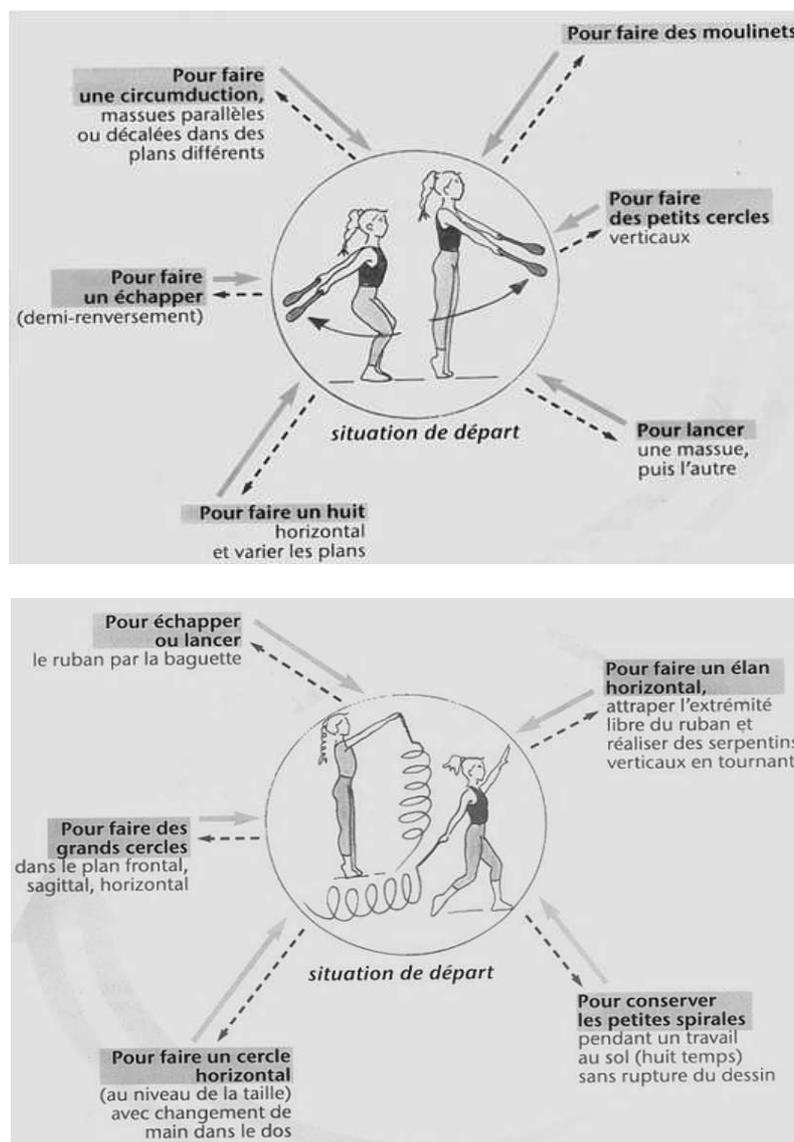


FIGURE 1 - Inventory of the RG apparatus manipulations²². (Continuation).

RG techniques are divided into three subgroups (manipulations, “hands-free” and choreography for public presentation) split into elementary tasks and taught separately. The usual teaching contents are divided into small decontextualized units, leading to a strong simplification of RG. This finding refers to a linear and hierarchical model highlighted in PE by ROVEGNO^{23, d}. We consider that this simplification of learning deprives students of real practice and knowledge of RG: these simplified contents promoting elements with apparatus in static aesthetics, to the detriment of body movements and artistic communication, reinforce what the students already know spontaneously and take them away from the sport practice.

Why do PE teachers involve novice students in RG through manipulation techniques?

The reasons have to do with the didactic transposition process at school²⁴⁻²⁵. The teacher makes students play a *technical game* that provides a stake and technical rules clearly identifiable by each: 1) apparatus manipulations are the most immediately visible feature of the activity and they have concrete and reassuring meaning for them (rolling, turning, bouncing, etc.). They can quickly realize if they win or lose this game (the ball rolling on the arms escapes or not, the thrown ball is dropped or not); 2) the technical vocabulary that defines manipulation is easily remembered by all. It is easy to take an inventory of various actions to be performed, and program them in lessons time.

The *technical game* played in class with apparatus is an optimal game for several reasons: a) clear links with the sport reference (apparatus are emblematic of the activity); b) elementarisation in accessible gestures (“teachability” of a complex activity); c) convivial didactic relationships between students and teacher in an activity not often taught in PE (immediate meaning for students).

This transpositive fabrication of RG is a constraint to which all teachers are subjected. Of course they are never completely satisfied and they always seek to improve the contents presented to students, in particular by introducing “free plays” (like “figure out all that you can do with the ball, the hoop, etc.”). Still, if that fabrication is viable in ordinary school conditions, it always entails a certain degree of inertia, which is inconceivable in gymnastic reference culture. Since the sport of RG is the official teaching reference at school, it is essential to formalize its “internal logic”²⁶⁻²⁷. We seek this logic in its historical evolution.

The historical development of the RG sport practice

We hypothesize that the difficulties faced by teachers to overcome the compartmentalized *technique-Artistic* division in RG teaching, are due to the problematic (but not contradictory) relationships that link both dimensions and continuously mark this sport’s history. The study shows *technique* cannot be understood without analyzing its links with *Artistic*, and vice versa. In addition, the analysis of *games played*²⁸ reveals a variation of three *games* in which artistic engagement and technical requirements are incorporated into each other in three different modalities: 1) creating; 2) making beautiful; 3) representing. These artistic modalities are the product of this sport’s historical dynamics. To better understand this dynamics, we broadly present the historical basis of our observations.

Three main historical periods

Following the creation of *art gymnastics*^e in the early 1950s, three main periods can be distinguished:

- At the beginning of the 1960s, new *art gymnastics* (now called modern gymnastics) joined the sports field¹⁵. Gymnasts borrowed composition elements from other arts: interpretation of musical oeuvre, academic ballets, folklore dances, actors’ staging and acting. However, the regulations explicitly stated the “RG spirit”, defined in a neither-nor way: the composition

was to be based “neither on folklore or choreography (classical ballet, modern dance, etc.)” (Code 1970, p.4)²⁹, nor on “the tragic mime” (p.8), nor “the acrobatic elements specific to artistic gymnastics” (p.4). As the length of the exercises was relatively long, ample time was allotted to produce full-fledged creations. The different international schools of gymnastics, depending on their cultural particularities, were progressing in the same technical direction by combining apparatus and body elements. The evaluation was conducted with norms of aesthetic mastery (“lightness, harmony, elegance” penalizing “clumsy and stiff movements”, Code 1976, p.30)³⁰.

- A second period emerged from the 1980s onwards: artistic borrowings complied with harder and harder technical requirements (RG became an Olympic discipline in 1984). The dance elements were incorporated into the regulations based on *technical performance* criteria (eg, balances with clearly fixed shape and stop position; jumps with height sufficient to show the shape during the flight, travelling executed on the toes, Code 1989, p.24)³¹. The RG gymnastic and aesthetics “spirit” was still expressed in a neither-nor way: neither ballet (classical, modern or jazz), nor mime (“representation by the movements of characters, situations, ideas or feelings”), nor acrobatics (Code 1989, p.43)³¹. The term *artistic* officially appeared in regulations from 1997 onwards: “artistic value” was separated from “technical value” and associated with “the guiding idea”^f.

- The third period began in the early 2000s, with the emergence of a kind of dilemma between *technique and Artistic*. The 2005 Code regulates both components, each equally scored out of 10 points. But unlike the objective and numerical definition of “technical difficulties” (number and value of codified difficulties), the definition of the term *Artistic* is based on general criteria (guiding idea, harmony between the character and rhythm of music and the character of the exercise and its movements, Code 2005, p.20-21)³². Finally the score distribution and calculation favor the technical performance (body and apparatus) and suggests that *artistic appreciation* is subject to the judges’ personal and emotional preferences. Gradually a domination of *technique over Artistic*, appears clearly, which results in standardizing performances^g.

However at that time, beside this strong trend toward technical uniformization, there were attempts to define an artistic way within reinforced technical constraints. For example, outside dominant practices, the Ukrainian school gymnasts distinguished themselves by their ability to combine

the twofold requirement for technical performance (in accordance with the official regulations) and for creating an artistic oeuvre (faithful to the original *art gymnastics*). The case of gymnast Bessonova in the early 2000s, is “exemplary” of this trend^{15, 28}. The gymnast interpreted (hoop and ribbon, in 2003 and 2004) the Swan Lake theme by Tchaikovsky, exploiting the roles of both female characters in the ballet (the duality of the white and black swans). The compulsory Codified difficulties, in certain appropriate shapes, integrate the image of the bird^h.

We identify here a powerful *technique-Artistic* integration: *Artistic* (symbolic postures and gestures) accomplishes *technique* (body and apparatus performance rule enforcement) and exceeds it by creating new possibilities which gives the performance singular in the jury’s eyes. By introducing an *artistic* dynamics in a structure almost exclusively submitted to *technical* criteria, the gymnast developed a new body syntax in the three main dimensions: rightness, easiness, and symbolic evocation. We will expand on them below.

This ability to combine *technique* and *Artistic* is now explicitly encouraged and evaluated by the current Code (2013-2016)³³. The intention is indeed, while confirming the RG technical status, to develop its artistic identity.

The different modalities of the artistic game

The technical and artistic features, elaborated throughout this sport’s history, feed on each other, shifting from one pole to the other, discovering new motor possibilities due to their confrontation. That is why we choose to call RG an “*artistic sport*” because of the nuanced articulation (and not juxtaposition) between sports and Artistic.

The three dimensions that characterize RG as an “*artistic sport*” are: a) ceaselessly coming up with new movements; b) seeking ease in performance; c) interpreting an “idea” or “artistic image” (Code 2013-2016)³³. In other words, the RG practice is structured in three *game modalities*, each of them referring to distinct rules and criteria. These different *game modalities* operate in fact as paradoxes to be constantly overcome by gymnasts, whatever their levels. If the first two modalities share common characteristics, constituting a single “*artistic sports*” family (artistic gymnastics, trampoline, tumbling, synchronized swimming, diving, figure skating, acrobatic dance, etc.), the three combined make the activity particularly complex.

The *game of creating*

Everyone realizes that gymnastic compositions are always renewed from one championship to the next. However they are not free creations. Inventions are subject to *technical rules*, as we have said, and associated with *criteria of fairness and efficiency*, which themselves evolve as code of points are being modified. It is illusory to claim that one has complete freedom and can set their own constraints.

It is the first paradox of the artistic game. Gymnasts are free of movement of course, but in a carefully set game of creation: *Originality is invented with point calculations in mind*.

Yet, it is widely and hastily believed that technical rules “cramp” artistic freedom and thus end up killing it. This opinion is often met in school practices when teaching fails to enforce a rule, for fear of hindering invention.

The *game of making beautiful*

The RG exhibition entails seeking maximum ease and perfect execution. It is subjected to *aesthetic rules* associated with *fluidity and lightness criteria*. When a gymnast reaches this ease, she attains a sort of “state of grace” that allows her to communicate emotions to the audience. To do so, the exhibition has to “conceal” the effort, to hide “all the physical preparations and prerequisite training”³⁴ (p.58) so that the audience only remembers the apparent ease. Conversely, the aesthetic emotion collapses when the performance cannot make people forget about the juxtaposition of acquired difficulties or hide the faults and errors.

It is the second *paradox* of the artistic game. The difficulties must be exposed “disguised” in beauty: *ease is required through the difficulties*.

The risk however is that people can forget the value of the difficulties performed. This opinion is sometimes conveyed by the media or general public to the point that the sports performance seems to be overshadowed, even if its technical basis is highly regulated. This is why RG is often seen as “activity in music” close to dance. One remembers only the apparent ease, even if it means questioning its sport dimension.

The *game of representing*

Therefore when “an idea” or “an image” guides an RG composition, there appears a symbolic dimension. The staging of a “guiding idea” or

“image” presupposes the existence of *symbolic rules* associated with *transparency criteria*, through which the perception of the message is received. Then the gymnast has to represent (eg playing the bird), that is to say creating something with which the spectator could associate a symbolic meaning.

Expressing something in a constraint system is, according to us, “the” fundamental paradox of the RG artistic game including both previous features. The game consists in making believe in the illusion of the image (the swan) - which is akin to magic. If magic is successful, there are advantages: the judges

remember the composition as an *oeuvre*, stylized among many other performances, and the gymnast can also succeed in hiding some of her technical and aesthetic limitations.

At the end of this study, we estimate that in each game that is played in RG, the problem of the connections between *technique* and *Artistic* arises, a problem historically unchanged since the sport’s creation. These games are RG’s eminently synthetic “internal logic”, at the melting point of the three modalities articulating technique and Artistic. This logic suggests renewed teaching perspectives for school RG.

Renewed teaching perspective: proposing a learning game

By the term *learning game* we mean the educational process by which teachers teach students a given knowledge. They make students play a *learning game* to eventually enable them to play an *artistic game* that brings them closer to the RG gymnasts’ game. Getting closer to the experts’ *artistic game* consists in deploying an activity that reproduces the *essential features accumulated* in RG activity. Among these *essential features*, as we have said, we consider the role occupied by *signs* at the conjunction between *Artistic* and *technique*. This form of activity is called *semiocinetic*^{35,1}.

Our proposal, which consists here of a hoop activity in a mixed class with novice students (eleven to twelve years old), seeks to introduce to a class the complex problem faced by gymnasts: incorporating into technical actions (body and apparatus) the artistic effects produced on the audience.

With the class, we devise a global staging project (a show with a scenario, related for example to a musical oeuvre). The body expression of “images” for spectators, is studied through different hoop manipulations (“M” as in “Manipulation”: rotation, rolling, throwing and catching, passing through, etc.) and different body elements (“L” as in “Locomotion”: walking, running, jumping, rotation, balance, etc.).

Students have to cover a distance (with various options of body shapes) in a given space of the floor area, in the presence of spectator-students, and rotate the hoop (with various plans or directions, types of body support to choose from), and simultaneously to engage the free body segments (free arm, head, chest) in a semiocinetic relationship with the audience (“S” as in “Semiocinetic”): free hand salute, signals or mimic gestures¹).

The problem for students is: how to take charge, with the largest number of body segments available, of *semiotic* actions to focus the audience’s attention (S), without disrupting the other two actions, hoop *manipulation* (M) and body *locomotion* (L)?

A system of points is assigned for each action performed. Points are counted as follows:

Student gains 1 point every time he makes an isolated action: S, L or M (FIGURE 2).

He gains 2 points each time he combines two of the following: M + S, M or L + S + L (FIGURE 3)

He gains 3 points each time he combines these three actions: M + L + S (FIGURE 4).

Winning the game consists in accumulating the maximum points during the performance. The length of it is 30” to start with.



FIGURE 2 - At a first level of performance, the student Ann (photo on the left) rotates the hoop, her body shape is like a static block, her free arm is tense. This is also the case for Arthur (drawing on the right) drawn rotating his hoop, stationary on two legs, free arm along his body. In both cases, the essential relationship focuses on the apparatus, the project is spatial (holding the hoop in its rotation area): the gain is 1 point (M).



FIGURE 3 - At a second level of performance, the student is able to rotate the hoop with a greater degree of freedom allowing him to travel over the floor area. His eyes roam freely and his face is relaxed, nevertheless his free hand is tense in the same overstrain as the manipulative hand). The project remains spatial (orienting one's own travelling space and maintaining the hoop in its rotation space): the gain is 2 points (M + L).

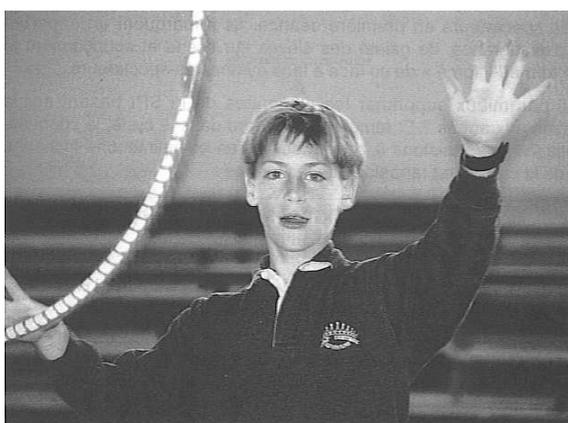


FIGURE 4 - At a third level of performance, the student (left) is able to rotate the hoop with some ease. We imagine he is moving towards the audience he looks at intentionally, waving "bye-bye" with his free hand. Similarly, Vincent (right) is drawn rotating his hoop in connection with different body shapes and offering his face and chest to the public's attention. In these cases, the essential relationship is on the body (students produce shapes) and on communication with the public. The hoop is an interiorized apparatus: the gain for each triple combined action is 3 points (M + L + S).

Thanks to the *learning game*, students can enter this “artistic sport” at their own level. It is also possible to observe the different solutions they provide to solve the problem. We have identified three levels of performance (FIGURES 2, 3 and 4). Students who win the game (their success is measured through successive 3-point gains) manage to combine *Artistic* and *technique* in an elementary form, which constitutes a kind of *germ cell*^{6, k} that opens perspectives for multiple future developments in RG.

Our study is rooted in the analysis of a real teaching problem: the similarities between RG school knowledge in PE and knowledge taken as a reference in the corresponding sports culture. The situation proposed above is modeled as a *learning game* whose stake and rules are centered on “the passage” to be performed by students to succeed in the *game* and acquire this “integrative” knowledge. The students’ activity (FIGURES 2 and 3) has topocinetic characteristics³⁵ in which spatial relationships (apparatus manipulation

space and/or body movement space) dominate. Winning the *learning game* presupposes they develop “another type” of practice. Based on this spatial dominant practice, new actions are to be learned in which each degree of “semiocinetic” freedom is won over “topocinetic”. Students then become able to develop artistic capacities similar to those that gymnasts develop in sport practices.

Aiming to reconcile taught knowledge and expert knowledge, our study is focused on two levels: a) the *modernity* level of the reference chosen at school to promote the RG artistic quality; b) the level of its educational impact based on *complexity* criteria. We argue for both levels of debate to occur in a renewed design of RG school contents. School practice would then be able to engage students in very rewarding *artistic games* combining different types of involvement (inventing and/or making beautiful and/or representing) with the technical possibilities (body and apparatus manipulations) specific to this sport.

Notes

- a. In this article, the name “Artistic” will be designated by the capital letter, and the adjective in lower case.
- b. The term “aesthetic” usually refers to experiencing beauty and to matters of taste (taking into account the diversity of aesthetic criteria, as MICHAUD³⁷ did).
- c. The International Gymnastics Federation (FIG) describes Rhythmic Gymnastics as being “between sport and art”: “Combining the elegance of the ballet with the drama of the theatre, Rhythmic Gymnastics bursts with glamour, blurring the boundaries between sport and art. Rhythmic gymnasts strive to enchant judges and audiences with the polish of their exercises while executing enormously difficult maneuvers with one of four handheld apparatus: the Hoop, Ball, pair of Clubs and Ribbon.” (About Rhythmic Gymnastics, Updated January 2014) <http://www.fig-gymnastics.com/site/page/view?id=261>.
- d. ROVEGNO²³ distinguishes three types of dividing and sequencing subject matter: “linear and hierarchical models”; “spiral and less linear models”; and “matrix models” focused on the connections between the different content elements.
- e. *Art gymnastics*, a resolutely non-sporty discipline, was invented especially for young girls and women, in reaction to a rigid military or competitive model of gymnastics. The name *art gymnastics* (in Bulgarian, Russian, Czech and Polish languages) was adopted in Eastern European countries, where it became very popular³⁸: it referred to a kind of gymnastics with apparatus whose goal is to enable a person to achieve their sensitive and artistic potential. It took several decades of cumulative practices in a tradition of relationships between the arts (dance, music, painting, sculpture, drama) driven by innovators such as Noverre, Laban and Dalcroze, to create this form of gymnastics. It is an “intrinsically” bodily artistic practice, created from a motricity recomposition with so-called natural movements, enriched with musical sensitivity, in which sensory information, fine skills, harmony with the environment, grace and expressiveness should be front and center. In 1949, Russia held a first attempt to introduce this new *art gymnastics* into the sports field. At that time, the artistic dimension was developed in group exercises.
- f. “The guiding idea” is defined as follows: “The choreography is characterized by a guiding idea performed, from beginning to end, by means of a unified message using all possible movements of the body and the apparatus. This means that the exercise should start with an introduction consistent with the guiding idea, develop the idea logically and without interruption, end with an appropriate conclusion (exactly the opposite of a disconnected juxtaposition of difficulties), and must be accompanied by a music which underlines and enhances the meaning of the exercise” (Code 1970, 1997)^{29, 39}.
- g. The supremacy of *technical over Artistic* was quickly denounced by GR experts, following the famous Bulgarian coach Neshka Robeva. In all her conferences in Europe, Robeva defended the necessary return of GR to its artistic

vocation (eg “From GR competitive practices to the performing arts, common points and differences”, *Gas. Jornadas Internacionales AFRAGA, Los factores de la performance*. Barcelona, May 2007).

- h. For example in her 2004 hoop exercise, Bessonova performed the difficulty “flexibility with free leg high up vertically in dorsal space.” Simultaneously the hoop rotation is done in rear sagittal plane, around the lifted foot plant, outside of visual control (making balance keeping on the support foot very delicate). The chest, neck and head are stretched above the horizontal level, both arms released in a rear wave as to create the illusion of flapping wings. This illusion of the bird continues when the gymnast rises on her toes, “flexibility difficulty” becoming “balance difficulty”, a combination valued by the technical code.
- i. The *semiocinese* (from the Greek “sema”, sign, and “kinetikos” concerning movement) is defined as a bodily activity which “presides the relationships of the individual with his social environment for communication purposes”³⁵.
- j. With young novice students, we observe primarily signals that seek to translate things by imitating reality, in an imitative logic. Mimic gestures attempt to represent in a figurative way, something from one of its already known remarkable features (for example, the snail represented by antennas: hands closed and fists placed on the forehead, the index is unwound, pointed upward and then down, and fists closed again).
- k. The key notion of *germ cell* is defined by ENGSTRÖM⁴⁰ as the earliest, smallest and simplest unit of a complex totality. *Germ cell* carries in itself the foundational relationship and contradiction of the complex whole. At times it is so commonplace that it is often taken for granted and goes unnoticed. At last it opens up a perspective for multiple applications, extensions and future developments.

Resumo

A promoção da qualidade artística na ginástica rítmica: análise didática do alto rendimento à prática escolar

Na França, o currículo para a Educação Física (EF) coloca as atividades ginásticas numa gama de competências denominada “Realização de práticas corporais para fins artísticos e acrobáticos”, juntamente com práticas artísticas como a Dança e o Circo. Mas qual o lugar da “arte ou do componente artístico” nas atividades ginásticas? A presença de gestos estéticos é suficiente para considerar a ginástica como uma atividade artística? Definir o termo “artístico” no campo desportivo é difícil, devido à dicotomia que se carrega historicamente entre os termos técnica e arte (nesse campo). Nossa análise foca na Ginástica Rítmica (GR), que parece ser um exemplo emblemático acerca dessa divisão entre técnica e arte, porque de um lado possui técnicas rígidas, prescrições detalhadas e regras; e por outro lado, possui a graciosidade, a criatividade e a expressão própria da ginasta. Nós acreditamos que há categorias fragmentadas e muito esquemáticas (estanques) para definir a ginástica e as atividades dos praticantes, e por isso, devemos analisar a articulação dessas categorias. Desse modo, primeiramente apresentamos uma visão geral acerca da GR como uma prática escolar com diferentes formas de ensinar; em seguida uma análise histórica sobre a configuração da GR como um esporte, destacando a intransponível lacuna entre as práticas escolares e as desportivizadas (que se constituíram ao longo do tempo), e buscando a conexão entre os aspectos técnicos e artísticos. E por fim, propomos três significativos pontos de articulação (denominados “jogos”), combinando de forma muito próxima as exigências técnicas e as demandas artísticas da modalidade. Consideramos que a variação desses três tipos de “jogos” (de criatividade, execução com graciosidade e de representação) é o produto do dinamismo do processo histórico desse esporte que ora denominamos de “artístico”. Assim, a partir dessa narrativa, apresentamos uma proposta de ensino da GR por meio de jogos para praticantes iniciantes, que visa promover as qualidades artísticas da prática da GR.

PALAVRAS-CHAVE: Técnica; Artístico; Jogos de regras.

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