

# Educational research based on the cultural-historical theory: reflections on physical education subject matter analysis<sup>1</sup>

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The purpose of this article is to discuss a specific action related to the cultural historical tradition on developmental teaching: the subject matter analysis. The article develops two main argumentations related to this research action: a) assuming the cultural historical theory as a framework of our own research means to assume this theoretical perspective as a wholeness or as a system of concepts, which brings some implications for our own research; b) a subject matter analysis, as an analysis that allow us to reveal the theoretical concepts that organize a given discipline, should be conducted as a historical analysis, which means, an analysis able to explain the process of development of the human activity which generated this subject matter. In the attempt to develop these two argumentations in the boundary of educational research based on the cultural historical theory, we present a part of a subject matter analysis on physical education. Despite the importance of the subject matter analysis for teaching -by making explicit the theoretical concepts that organize a specific subject matter- this action is not the final point of an educational research, as this final point is located on the elaboration of concrete learning tasks directed to student's development of theoretical thinking.

**Keywords:** cultural historical theory; theoretical concepts; philosophical tradition; subject matter analysis, historical analysis.

## Introduction: educational research in the cultural-historical theory

One of the main theses in the cultural historical theory is the thesis that the human development is the product of social relations [8; 9; 10<sup>2</sup>]. Whether the acceptance of this general thesis may be considered as a non problematic issue among those who study the cultural historical perspective, the explanation of its meaning and the implications for a research project may have some controversial points. What is social relations? How does it produce development in an individual? How is this thesis considered in its relation with the other theses and concepts of the theory? What is the philosophical tradition that sustained the elaboration of this thesis?

These questions lead us to the meaning of having a theoretical perspective as a framework of one's research. Although it is possible to use single concepts of a specific

theory, it is important to notice or to be aware that, in these cases, we are not using a *concept* — properly speaking — once a *concept* means always a "system of concepts" [7].

When one uses single concepts of a theory, single ideas, disconnected with its specific system (the other thesis and concepts), it will be necessary to connect this idea with another system; it will be necessary, as Vygotsky says, to produce a theoretical combination in which "... the tail of one system is taken and placed against the head of another and the space between them is filled with the trunk of a third" [6, p. 252]. And by doing this, we are producing *another* concept, different from the one produced by the author.

Given this, the first argumentation defended here is that by assuming the cultural historical theory as the framework of our own research we have to assume this theoretical perspective as a whole, as a *system of concepts*, whether we are going to agree with them or not.

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<sup>2</sup> For instance: "In general, we may say that the relations between the higher mental functions were at one time real relations among people" [8, p. 147] and "Cultural is precisely a product of social life and human social activity and therefore presenting the problem of cultural development leads us directly to the social plan of the development" [10, p. 181].

That is why we are stressing the need of analysing Vygotsky's ideas in their whole theory, which includes the other authors of the cultural historical theory (as Luria, Leontiev, Davidov, Elkonin and Galperin) and the philosophical perspective or tradition that sustained the elaboration of his scientific project.

But how could one define this philosophical tradition of the cultural historical theory? Even considering that we can find explicit quotations of Vygotsky, regarding his philosophical perspective<sup>3</sup>, the central procedure or task to justify the philosophical interpretation of the cultural historical theory is not making a list with such quotations, but to explain this philosophical position in the set of the scientific project conducted by its authors.

With this purpose we are going to summarize some relations that sustain – in our interpretation – the thesis that "human development is a product of social relations" and by this, make explicit the philosophical perspective that sustains the scientific project of the cultural historical theory, as well as some implications for one's educational research. By defending that human development is a product of social relations we have that a) human development is directed to the *maximum* possibilities of development for *all* individuals; b) the quality of "maximum" in human development is given by the historical possibilities of humankind<sup>4</sup> and because of this, c) it is not any kind of development that is considered, or any kind of "psychological functions" to be developed, but those that are able to produce a "fully developed individual" [11] which happens by the appropriation of the *most developed* cultural means elaborated by mankind; d) these cultural means are embodied in different *social relations* or *human Activities* [2], both in their motives and in their actions. Therefore, e) it is necessary to develop these social relations in our everyday life and in specific sets – as schools – in the direction of the construction of new possibilities of human relations, which is, in turn, based on the historical possibility to guarantee a full development of each individual in our current society<sup>5</sup>.

Within the boundary of an educational research, the point is to analyse the possibilities and the limits of specific educational practices as a contribution to overcoming the objective conditions that restrain the maximum possibilities of students' development (for instance, a non emphasis with the theoretical concepts in school work). For this, the second argumentation here is that school's goal is to contribute to guarantee students' access to the *theoretical knowledge* that has been historically produced and accumulated in different human fields or in different human activities [2]. The appropriation of the theoretical concepts allow one to develop one's theoretical thought [1] which means, developing a

new organization, or a new structure of the psychological functions [8], organizing, therefore, a new kind of *personality* in the subject. And exactly because the personality is, as Vygotsky says, the "social in ourselves" [8, p. 336], we must ask in our research: what kind of social relation do we want in us? And what kind of contributions a specific educational practice can have on this students' personality formation?

### **General questions about the subject matter analysis**

If school teaching, as previously defended here, is directed to contribute to students' appropriation of the *theoretical knowledge* which has been historically produced and accumulated in different human fields – and because this knowledge (or these cultural tools) is considered as the most developed form of knowledge produced by mankind – we might ask about the possibilities of determining the theoretical content to be taught in one or another discipline. The general answer to this question is that this can just be determined by a specific analysis of this discipline, or by a *historical analysis of the subject matter*.

In this sense, making a *historical analysis* of a subject matter, making explicit the *central relations* existent in it, or the conceptual relations that organize this subject matter, can be considered as the basis for the organization of a developmental teaching [1], as it is a way to reveal the theoretical concepts that – ideally – should be taught and learned in this field.

In the attempt to go further on this discussion about what is a historical analysis of a subject matter, as well as its implications to organize a teaching in the boundary of the cultural historical theory, we are going to discuss some possibilities of a subject matter analysis from one specific subject matter: physical education.

The first thing to be said is that physical education doesn't deal with physical activity or physical exercise in itself, but with *human Activity*. It means that by analysing the subject matters of physical education one is analysing the human activity that had generated this specific subject matter; it means to analyse the *social and historical relations in each one* of those activities, explaining how those activities were developed as a particular human activity.

The second thing to be said is that by being a specific human activity, physical education subject matters (as *collective games, combat sports, dance and gym*) have embodied in themselves specific *cultural tools*, specific concepts that should be part of the conception of "full human development" or "human potential" [11]. And exactly because of this, these activities should be taught

<sup>3</sup> We are not considering just a formal nomination to a philosophical perspective, but its meaning, i.e the conceptions about what a human being is, what society is, what knowledge is and how and why one produces knowledge about reality.

<sup>4</sup> But more generally, the process of cultural development basically depends on acquiring cultural psychological tools, which were created by mankind during historical development" [10, p. 29].

<sup>5</sup> Despite knowing the limits of this full human development in our current society because "only a raising of all of humanity to a higher level in social life, the liberation of all of humanity, can lead to the formation of a new type of man" [11].

in their broader possibility of contributing to each individual's *personality* development.

But besides this general understanding about physical education, we should still answer another important question: what does making a *historical* analysis of a subject matter mean? What is *historical* in the cultural historical perspective? "There are still many people who misinterpret historical psychology. They identify the history with the past [...] To study something historically means to study it in motion" [8, p. 67]. In this sense, a historical analysis means a *real explanation* of something; means to make explicit the process and the conditions that allowed the appearance and the development of this thing [5; 3]. In the case of a subject matter analysis it means to follow the process of development of the specific human activity that had generated one or another subject matter, *explaining* how the different elements related with it are connected to each other, in the sense that "the knowledge of facts or a set of facts is the knowledge of the place that they occupy in reality" [4, p. 41].

The first methodological requirement for a historical analysis in the cultural historical theory would be, therefore, the determination of the substantive abstraction or the cell [1], or the unity of analysis [7], or its internal condition [3], that contains the *objective relations* existent in a given phenomenon and *from which* its development occurs. Therefore, the requirement is of *decomposing* the whole phenomenon being studied into *essential parts*, or better, *essential relations* that play — during the real process of the phenomenon development — a substantial role, determining both: the content and the form of its development.

Despite the huge importance of finding the cell or the essential relation, this is just the *first step* of a historical analysis. The essential relation of a given reality plays, in the analysis process, the same role that it plays in the phenomenon: it is the starting point for its development; the point *from which* the whole development occurs. For this, explaining something is not in the finding of the cell itself; it isn't a simple declaration of a phrase but it is the explanation of the *development of this cell*, which means, showing how this cell puts the phenomenon into *movement*. Finally, it means to analyse a *concrete* phenomenon in order to show its process of development from its most simple forms to its most developed forms.

In the attempt of showing some possibilities of making this kind of analysis in an educational research, and considering the impossibility of constructing, in this article, the whole analysis of one concrete phenomenon, in the last part of the article, we are going to present the exposition of a part of the analysis of one specific physical education subject matter: collective games.

### The concrete research actions for analysing physical education subject matter

As we argued, finding the central relation in a subject matter constitutes the real starting point for making

a historical analysis — in the sense that it is just beginning from this relation that we are able to reconstitute the phenomenon in its wholeness. But, usually, this central relation isn't a ready-made thing, that one is able to look for in a textbook or in an encyclopedia and then, starts the analysis. The central relation, or the substantial abstraction is, normally, a product of our analysis of a phenomenon, and not an a priori thing. At the same time, it is an analysis to create the conditions for our real analysis: the explanation of the process of development of the phenomenon being studied.

As one can suppose, this analysis to find the core relation of a subject matter begins, many times, in a more or less arbitrary way, in the sense that we start without a clear understanding about how to deal with the amount of relations that constitutes this subject matter. In a metaphor, this would be the moment of a body "dissection" for its anatomic study, but before knowing for sure the correct parts to be cut and how to cut them in order to allow the correct study of the body as a wholeness. Nevertheless, it is just in this process of "dissecting" the phenomenon that the criteria or hypotheses about which parts or which relations are the potential core explanatory relation, can be constructed.

Although it won't be possible to show an entire analysis of a subject matter — as it would require showing the analysis of the entire phenomenon — we are going to present a brief part of this analysis for a subject matter of physical education: *collective game*. The purpose is trying to make explicit what is the starting point for its analysis; what is the central relation of collective game, from which we should develop its whole analysis.

The problem, here, isn't showing our real process of investigation to find this central relation (a description of each research action and each level of result found out) but to present an *exposition* of this inquiry process of finding the central relation for collective games, which means, showing a synthesis of this inquiry process from the analysis of the process of development of one particular phenomenon. For this, we are going to discuss a particular and very simple form of game: the "run and catch" (or the tag game) played by teams.

One important thing of this kind of game is that its general goal (catching or running away) can be achieved in a *direct manner* by the players, which means, a direct action, that is — basically — the motor action that satisfies those goals (running and catching for one team, or running and running away for the other). In this case, the players haven't a clear distinction among the *goals* and the *means* for reaching these goals. And most important: they do not have the need of this kind of consciousness, because they are able to reach the game goal in a direct way: "I have to catch other players; for catching, I have to chase them, which means: to run and to catch." or "I have to run away from catchers; for this, I have to escape, which means, running away and escaping". Plus, in this situation, each player doesn't have an objective need for acting in cooperation with his team, exactly for the same reason said before: they can achieve the general game goal in a *direct way*.

In this first way of developing the tag game, the players' *attention*, *perception* and *analysis* of the game situation (i.e., all their *activity*) are objectively guided by the action of understanding and performing the game rules, in order to establish a playful situation. Nevertheless, for the emergence of a collective game situation, the existence of this action with the rules is not enough. But if a tag game played with teams *can* be developed as a collective game (it has in it the possibility of being a collective game), we have to explain the specific ways in which this transformation occurs. What are the necessary conditions for this? How does a group setting transform itself into a collective setting?

This change begins when the players of one group realize that everyone is dealing with a common goal. Besides, they have to realize that "catching other players" isn't exactly the main goal of the game, but it is: "catching *all* the other players". This means that the game goal hasn't to do just (or mainly) with my direct relation of catching people, but with my *group's relation* of catching the other group. We just win the game if we catch *everyone* of the other team, which is virtually impossible to achieve by one player alone. And this first modification in the consciousness of the players makes the arising of a new necessity — acting together in order to reach the game goal — and, with it, a new game action: a *collective action*. Despite this action respects the game rules entirely, it isn't an action *from* the rules; it isn't something to "follow" because the "game says so", but an action thought as an *answer* to that new need of acting together.

The elaboration of this new game action plays an important role for a collective game emergence, because it is an action that is able to organize the players' action in a new and more complex way. Between the game goal (catching the other team) and the direct answer to this goal (the motor action of catching the other players) it is established another action, as an *intermediate* action. This kind of *intermediate action*, that reflects a specific *thought* or a specific *analysis* of the game conditions, could be synthesized in the concept of "*collective action plan*". The collective action plan expresses a relation between the game situation perception (what is the problem of the game) and the game action (what answers the players propose for the problem), mediated by specific concepts of the game (mainly, strategic concepts related with the spatial relations among players).

Even if the *plan action* appears in a very simple level (like the idea of catching in pairs in order to establish a quantitative advantage and guarantee, with it, a support in the attack) the importance of it is that it establishes among the players a *movement of thinking about the game* before playing it; a movement of anticipating the game results, which means, trying to create a certain result and, especially, a certain way to reach this idealized result. Instead of just playing the game, "reacting" to the different situations that appears in a match, we

are able to say that now the players have a true action of creating the game conditions. They think about what the game and the match could be and, with this, they act in order to create in the real game those conditions that were previously thought or imagined as possible. The originality and the geniality of this new form of game, of this new action that appears in this tag game hasn't to do with an external or visible "joint action". The originality and the geniality of a collective game is *in the conscious act of elaborating a cooperative plan* for the team, i.e., in the act of *imagining* new possibilities for the game and performing these new actions previously thought; in controlling voluntarily the game and the thoughts produced from the game.

That means that a group setting, the existence of two different teams and the existence of a specific set rules, are *general conditions* for the arising of a collective game, but they are not the internal conditions for its emergence. This internal condition, or the "cell" of the collective game is in the conscious and voluntary action among the players of a given team, of elaborating a *collective action plan* for the team. But even by saying this, this isn't yet the explanation of the collective game; not even the explanation of the cell itself, as the explanation of the cell just can be reached during the explanation of the entire phenomenon. Despite the fundamental importance of reaching this cell for our explanation of a collective game, now it is necessary to start the analysis of the phenomenon, which means, for instance, showing how this simple form of game, and this simple form of *manifestation* of the cell (the collective action plan) develops themselves till the most complex forms of a collective game, which should be done considering the general *contradiction* in a collective game: the opposition of *attack's goals and defense's goal between the two teams*. That is why we affirmed that finding the cell is just the starting point for the analysis of our phenomenon.

Whether we are correct or not in our hypothesis of this cell is, for sure, an important thing to discuss in order to evaluate a subject matter analysis. But as important as this, is the evaluation and discussion about the possibilities of students' development with the subject matter being analysed. For this, at the end of the collective game subject matter analysis, we should answer: in which way a collective game is able to contribute to students' theoretical thought and to students' personality development? And as we tried to argue during the article, the requirement of developing the theoretical thought of students in the perspective of the cultural historical theory is not related just with making the individuals more "capable", or more "clever", but to contribute to educate in them new possibilities of human relations, that should be oriented by the political and social projects that we defend for mankind and that constitute objective possibilities for our current society in the direction of a "full development" [11] of each one of us.

**References**

1. *Davidov, V.* La enseñanza escolar y el desarrollo psíquico: investigación psicológica teórica y experimental. Moscú, 1988.
2. *Leontiev, A.* Actividad, Consciencia y Personalidad. Havana, 1983.
3. *Ilyenkov, E.V.* The dialectics of the abstract and the concrete in Marx's Capital. Delhi, 2008.
4. *Kosik, K.* Dialética do Concreto. Rio de Janeiro, 1976.
5. *Marx, K.* O Capital, V.1. São Paulo, 1996.
6. *Vigotski, L.S.* Teoria e Método em Psicologia. São Paulo, 2004.
7. *Vigotski, L.S.* A construção do pensamento e da linguagem. São Paulo, 2009.
8. *Vigotski, L.S.* Obras Escogidas. Tomo III. Madri, 1995.
9. *Vygotski, L.S.* Obras Escogidas. Tomo IV. Madri, 1996.
10. *Vygotski, L.S.* Obras Escogidas. Tomo V. Madri, 1997.
11. *Vygotskiy, L.S.* The socialist alteration of man. URSS: Varnitso, 1930. Eletronic document: <http://www.marxists.org>.

## Содержательный анализ физического воспитания: педагогическое исследование в культурно-исторической традиции<sup>1</sup>

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В настоящей работе обсуждается специфическое действие, тесно связанное с культурно-исторической традицией и развивающим обучением, а именно, содержательный анализ. В статье разрабатываются два основных положения касательно такого анализа: 1) принятие культурно-исторической концепции в качестве теоретической базы нашего исследования означает принятие её во всей целостности, вместе с определенной системой понятий, что безусловно отразится на нашем исследовании; 2) содержательный анализ, будучи средством, позволяющим раскрыть теоретические понятия, вокруг которых выстроена та или иная учебная дисциплина, должен осуществляться как исторический анализ, т. е. анализ, позволяющий вскрыть процесс становления той деятельности, которая породила это содержание. Мы предприняли попытку воплотить эти два положения в педагогическом исследовании, выполненном в культурно-исторической традиции, и провели содержательный анализ физического воспитания как учебной дисциплины. Однако несмотря на всю важность содержательного анализа для процесса обучения (в том отношении, что он позволяет вычлнить теоретические понятия, вокруг которых выстраивается то или иное содержание), он не выступает конечной точкой нашего исследования, поскольку главным итогом является разработка конкретных учебных задач, нацеленных на развитие теоретического мышления у учеников.

**Ключевые слова:** культурно-историческая концепция, теоретические понятия, философская традиция, содержательный анализ, исторический анализ.

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