

BERND FICHTNER

REFLECTIVE LEARNING¹

Problems and Questions Concerning a Current Contextualization of the Vygotskian Approach¹

To focus our theme we would like to describe a scene from Lucchino Visconti's marvelous film "Bellissima":

Anna Magnani sits in her ghetto flat with her view fixed on the shabby screen of an open-air cinema opposite for which she cannot even afford the admission. She watches a scene from "Red River" by Howard Hawks. To the reproaches of her husband, who is only interested in his every day affairs, she answers: "Oh Spartaco" – what a name for a chronically unhappy proletarian always sitting around in his undershirt! – "Oh Spartaco, allow me my dreams."

Certainly, this film is about nothing if not about the destruction of her dreams, although at the same time it deals with the preservation of dignity and with the love experienced by the dreamers. Perhaps it is exactly the artistic quality of the film that allows illusion and disillusionment to coincide in such a way that the human being is saved with respect to both his body and his mind.

The film within the film here is no simple citation; it is rather a key which opens the film itself as a complex system of self-referentiality: In the relationship between the film in the film and the main plot of the film the process of the destruction of the dreams of the principal character is becoming the central theme. The relationship between the film in the film and Visconti's film becomes a means by which the latter is making itself a subject of discussion as a film. Only for the spectator can this self-referentiality become a means of reflection with which he refers Visconti's film to himself.

We now want to use this scene taken from Visconti's film to consult different aspects and dimensions of self-referentiality. We

¹ In: M. H. G. Hoffmann, J. Lenhard, F. Seeger (ed.), *Activity and Sign – Grounding Mathematics Education. Festschrift for Michael Otte*, New York: Springer, 179-190

narrow this questioning down to the content-part and the subject-part of reflective learning. We hope it will thus become clearer what “reflective learning” means.

We will begin with the following historical example: Wilhelm von Humboldt was arguably the first person to introduce a concept of reflective learning about 200 years ago. He did this within the context of his practical administrative work related to education. Our second step will be to consider how and why “self-referentiality” became a fundamental concept in Vygotsky’s approach within the political context of the formation of a new society. The third step will be to criticize certain tendencies of the current Vygotsky fashion which is in the process of forfeiting the political core of the cultural-historical paradigm as a science of subjectivity. Deleuze’s and Guattari’s concept of *désir* enables our critique to regain a conception of the individual as the social subject of his life. Finally, we will return to Visconti’s film and outline issues and aspects of a concept of reflective learning in reference to the reflective potential of art.

1. A HISTORICAL PROLOGUE: “LEARNING HOW TO LEARN” IN HUMBOLDT

In 1806 and 1807 Napoleon’s troops inflicted a crushing defeat on the Prussian army in the battles of Jena and Auerstaedt. The entire state of Prussia collapsed. This catastrophe illuminated the extensive backwardness of this society on economic, technological, and political/cultural levels.

At the same time, this catastrophe was both the context and the impetus for the Prussian reforms initiated by Stein and Hardenberg. These reforms supplanted the traditional feudal society and as “reforms from above” were geared toward something new that had not existed in Prussia beforehand.

As a part of this movement, the educational reforms aimed at developing an entirely new type of school. The concept of “general education” (*Allgemein-Bildung*) functioned as a political strategy in the development of a general public school for all children. In a politically decisive administrative position, Humboldt organized this educational reform around 200 years ago.

In an extremely concise and precise manner he worked out a new conception of the contents of instruction, a new conception of learning itself, and of the connection between the two.

The contents were limited to instruction in *language* and *mathematics*. “Empirical and historical“ subjects such as history, natural history, and geography were to be permitted as soon as they had become a matter of theoretical reflection – which was not the current state of affairs.

Instruction in language included those areas of philology which had already been theoretically and methodically clarified: philosophical grammar, Greek and Latin grammar. – The guiding principle was: “The form of the language as language“ should become perceptible in instruction. According to Humboldt, this could be achieved “more easily with a dead language that causes astonishment because of its unfamiliarity than with the living mother tongue“.

Instruction in mathematics was to take place in the form of a mathematics characterized by exact logical deductions as taught by Euclid, Lorenz, or according to some other precise conception of mathematics.

The contents of instruction were no longer “objects“ in the treatment of which useful skills and abilities were to be learnt as according to the pedagogy of the Enlightenment. Here for the first time, a *theoretical conception of knowledge* displaced knowledge in an immediate practical sense. Instead of being oriented to the “needs of daily life“ – as Humboldt described the immediate and pragmatic relation to society – an orientation was established towards knowledge on the highest level of a theoretical generalization. Astonishingly, at the same time this caused a radical focus on the individual, more precisely, on that activity which allows him to realize himself as the subject of his learning.

Humboldt expressed this in the following manner:

With reference to the contents of instruction, from which all original creative work must always follow, the young person should be made capable of already actually beginning to compile the subject matter to a certain extent and to a further extent of accumulating it as he pleases in the future and of *developing his intellectual-mechanical*

powers. Thus, he is preoccupied in a twofold manner: with learning, but also with learning how to learn. (1809, 169-170, my italics – B.F.)

Within the scope of the pedagogy of the Enlightenment, “mechanical skills“ were developed – particularly with regard to the technical handling of articles for work, their material prerequisites and means. This accounted, for example, for a large part of the instruction that took place in the industrial schools.

Humboldt’s suggestion signaled a fundamental change. Instead of a direct adoption of articles, substances, and knowledge as a finished product, the activity of learning itself became the focus, but not simply as some sort of automatism, activeness, or action.

Here, the characterization of learning as *simultaneously* being an orientation towards the content “from which all original creative work must always follow“ and an orientation towards “learning how to learn“ as a conscious focus on the learning process itself seems to be of primary importance. *For only in this simultaneous orientation does a simple reproduction of knowledge become replaced by a self-active production of knowledge as a subjective constitution, by learning as learning activity.*

This formulates a conception that deals with the development of individuality by means of acquisition of and access to knowledge at the highest level of its generalization. That is, from a radical, one-sided position general education (*Allgemeine Bildung*) is determined as the sole purpose of instruction (Humboldt maintained, “*Every carpenter should be required to learn Greek*“).

There are two dimensions to the solution of the problem of generalization:

- Knowledge at the highest level of generalization is connected to the logic of the process of acquisition itself. – Learning confronts itself as learning how to learn.
- This necessarily requires a generalization at the social level: compulsory public schooling for all pupils.

So much in the way of an outline of Humboldt’s concept. The actual implementation of this conception was a failure – not because of its radical, utopian perspective, but, rather, due to the contradictions

of bourgeois class society, which developed very rapidly during Prussia's industrialization (Fichtner 1996, 174-194).

2. VYGOTSKY: MASTERY OF ONE'S OWN BEHAVIOR AS REVERSED ACTION AND SELF-REFERENTIALITY

Analogous to Humboldt's situation, we find a similarly dramatic socio-political context for the development of the paradigm associated with the cultural-historical school.

We comprehend the cultural-historical school from its historical context as an attempt within the humanities to define the subject in a new way under revolutionary conditions.

This new characterization became necessary as a result of the historic radical change and its social conflict-related pressures. Although the political and social environment of this period was shaped by the upheaval of an entire society and this was considered to be an historic act of self-constitution by a social subject of history, it became evident early on that such catchwords as "re-molding human beings" or "creation of new man" included determinist elements. Above all, it became evident that simply confronting people with objective necessities was not sufficient to change their consciousness.

We consider the research undertaken by the cultural-historical school to be an attempt to overcome both determinism and voluntarism in the formulation of the political aims of this social process of radical change. Categorically, Vygotsky emphasized the fact that the human individual as a subject can be reduced neither to nature nor to society.

Vygotsky's attempt to establish a science of subjectivity was based on a philosophical and methodological premise that could only be formulated in a negative way: as the overthrow of any type of dualism and, in particular, of the dualism between individual and society.

Within this context, the *Theses on Feuerbach* were of considerable significance, especially the third thesis, which stipulates that a change in reality necessarily includes a change in human beings themselves:

The materialistic doctrine concerning the changing of (men's) circumstances and education forgets that circumstances must be changed by men and that the educator himself must be educated. This doctrine therefore

has to divide society into two parts, one of which is superior to society. The coincidence of changing circumstances and human activity or self-change can be comprehended and rationally understood only as revolutionary practice. (Marx 1983, p.156)

We consider this coincidence of changing circumstances and changing human activity or self-change to be a general framework of a revolutionary nature. Here, we do not wish to limit the concept of “revolutionary practice“ to political activity in the strict sense of the word. We consider human activity in a very general way to be “revolutionary practice“ whenever this connection between change in the world and self-change can be presumed.

Falk Seeger (1998) has demonstrated conclusively the central importance of Vygotsky’s concept of “self-control or the mastery of one’s own behavior“ for the entirety of his work. Vygotsky provided a first systematic development of this concept in his study on “The History of the Development of Higher Mental Functions”.

Three basic concepts are combined in this approach: *“the concept of higher mental function, the concept of cultural development of behavior, and the concept of mastery of behavior by internal processes“*. (Vygotsky 1997a,7)

I need not go into detail on the famous metaphors Vygotsky uses in developing his approach: the example of tying a knot in a handkerchief in order to remember something and the no less famous image of Buridan’s ass caught between two equally alluring bundles of hay.

As Vygotsky himself described his approach:

In contrast to Lewin we attempt to provide for the concept of mastery of one’s own behavior a completely clear and precisely determined content. We proceed from the fact that the processes of behavior represent the same kind of natural processes subject to the laws of nature as all other processes. Neither is man, subjecting processes of nature to his will and intervening in the course of these processes, an exception in his own behavior. But a basic and very important question arises: how does he represent the mastery of his own behavior to himself? ... We know that

the basic law of behavior is the law of stimulus-response; for this reason, we cannot master our behavior in any other way except through appropriate stimulation. The key to mastery of behavior is mastery of stimuli. Thus, mastery of behavior is a mediated process that is always accomplished through certain auxiliary stimuli. (Vygotsky 1997a, 87)

Here we have an explicit formulation of the main issue: how do humans represent self-regulation to themselves?

Vygotsky provides certain clues about how to deal with this issue:

All clues refer to the social nature of this process in which human beings present self-regulation to themselves.

Vygotsky describes these “certain auxiliary stimuli” as “psychological instruments”. He does not understand them as a mediator between subject and object. They are exclusively means of the subject’s influence on itself. With its help the child organizes, controls and governs its behavior in very different situations. – It does not any longer react to an external stimulus – but creates, constructs its behavior.

Thus Vygotsky characterizes processes as “mediatory activity” and not as mediated. This ability of the human individual to produce his psychological processes as mediatory, mediating activity can for Vygotsky only be explained out of the subject-subject relationships.

Human self-regulation occurs in accordance with the so-called “general law of cultural development“. This means that higher mental functions progress from the outside to the inside, from the social level to the individual level. *“Initially the sign is always a means of social connection, a means of affecting others, and only later does it become a means of affecting oneself. „*

Vygotsky concretized this in many examples. They are all to be found in the context of the question: How does its way of thinking change when the child learns to speak; and how does its way of speaking change when it learns to think?

An Example: What are numbers?

The arithmetical idea of numbers is a generalization of numerical attributes of things. Against this the algebraic idea is a generalization of the subjects operation on which the development of the graphical

numerical idea of numbers is based on. It is a conscious generalization of the process of reasoning. On this basis the child is able to handle arithmetical ideas more freely.

Vygotsky demonstrates the same phenomenon using the example of grammatical structures:

I loosen the knot. I do that consciously. However I cannot say how I did it. My conscious action does not come out to be an action which has become conscious, because my attention is focused on the act of loosening, but not on what I am doing. The consciousness always represents some part of reality. Object of my consciousness is the loosening of the knot, the knot and what happens to it; but not the actions I carry out loosening the knot, not what I am doing. This can in particular become the object of the consciousness, then this is the process of becoming conscious. Becoming conscious is the act of consciousness, whose object is the activity of consciousness itself. (Thinking and Speech; German edition: 1964, 168.)

At this point it would be appropriate to discuss the difference between “objective meaning“ and objective “sense“ in detail along the lines of the explication of this difference as found, above all, in Leont’ev (1981). Furthermore, the concept of “inner language“ introduced by Vygotsky in an almost poetic form in the last chapter of his “Thinking and Speech“ (Minck’s retranslation of 1987) is of considerable significance in this context. Here we also find important reflections on the issue of how humans represent self-regulation to themselves.

We will cut our outline short here and summarize, even if somewhat too hastily: The paradigm of the cultural-historical school aims at establishing the humanities as a science of subjectivity. At the core is a conception of a human who as the subject of his learning process produces his or her uniqueness and unrepeatability not against the society he belongs to but, rather, by means of this society.

This science of subjectivity views humans as individual social beings who attain their autonomy to the extent that they do not simply observe social wealth in objects, but also have their own subjective

means of the acquisition and expression of this wealth at their disposal.

This conception of such a science of subjectivity must become opposed to the system and become markedly contradictory to the political and cultural changes in social life as these began to be realized at the outset of the Stalinist era. The scientific category of “personal sense“ facilitated, for example, radical criticism of social living conditions. The actual system of their “objective meanings“ became less and less transformable into “personal sense“. Stalinism placed the responsibility for this on the people themselves. The Paedology Decree issued on July 4th, 1936 made any further work by the cultural-historical school impossible.

3. A CRITIQUE OF CURRENT APPLICATIONS OF THE VYGOTSKIAN APPROACH AND THE CONCEPT OF DESIRE

The current interest in the cultural-historical school in Europe, Latin America, and the U.S.A. is astonishing and makes us somewhat suspicious.

Where does this widespread interest in the work of a Marxist scholar, and Communist of the former Soviet Union at American universities and Brazilian ones (which we are more familiar with) come from?

What difference exists between a subject who was determined to develop and form social life in the Soviet Union of the 1920s and the subject that is engaged in forming our present society?

What is the meaning of formation of identity in a society that is not reconciled to itself, is not identical to itself and as a capitalist society is currently caught up in dramatic changes within the context of globalization?

What does development of the subject mean in an antagonistic society that demands from the individual a balance of forces that is impossible in society itself?

How can a paradigm and its basic concepts that were aimed at making a practical contribution to the development of a society without class differences, without exploitation of humans by humans function in a society that is precisely based upon expansive implementation of capital?

The current reception and further development of the paradigm of the cultural-historical school makes no mention of our reality, its conflicts and contradictions and their significance for the development of subjectivity and identity of children and youths, for their learning and cultural appropriation.

The current reception and further development of the paradigm of the cultural-historical school is far too lacking in mediating factors; it has a peculiarly abstract tendency. The fundamental concepts and strategies are usually not related to our reality in any *concrete* manner.

Currently profound and comprehensive processes of an economic permeation of our society are taking place under the label of “globalization“. Subsystems of our society such as public health services, law, sports and, not least, pedagogical institutions are forfeiting their relative autonomy to an ever greater extent. They are degenerating to auxiliary and reinforcing mechanisms of the market. Economy, that is, profit is rapidly and without any noticeable resistance becoming the measure of all things. (Chomsky 1999) All this represent factors of dramatic changes involved in how inner and outer coherence of our society is being produced. Within this context, practically all the traditional forms and functions of culture as a medium of the social lifeworld are in the process of dissolution.

In the present discussion, the fundamental concepts of the cultural-historical school are not related to this “disintegration of the social“ and to this dissolution of traditional forms of lifeworld. Since this reality is not thematized, many of the concepts forfeit their methodological potential. They no longer allow deliberation on the fundamental and revolutionary connection between change in the world and self-change of the subjects, between the development of this society and the development of its individuals. Consequently, a greater portion of current cultural-historical research exhibits a pronounced orientation towards superficial craftsmanship, towards technical and methodical optimization of what is already available: for instance, the “Zone of Proximal Development” as a sort of “scaffolding“ or “coaching“ or as a method for implementing group work in existing forms of instruction.

Our own theoretical and practical work of the last few years has made it increasingly evident that it is practically impossible to use Vygotsky’s approach for the education of persons who must adapt to

the system of a society based on capitalist alienation and exploitation. This would encompass an alienation from the original intentions of Vygotsky's entire work. We see one possibility of regaining the connection between changes in the world and the self-change of individuals in the works of Deleuze and Guattari. Here, the concept of "desire" plays a significant role².

Guattari liberated this concept from the psychoanalytic perspective, which had bound it exclusively to the "libido" as the biological source of unconscious aspirations of humans. In this way, Guattari adopts a position with regard to psychoanalysis similar to that of Vygotsky:

For me, desire encompasses all the forms of the will to live, to create, to love, to generate a different society, a different perception of the world, other values. Regardless of which dimension of desire one considers, it is never simply a general sort of energy, a vague function of chaos or disorder. (...) Desire is always a way of producing something. For this reason, I find it extremely important to dismantle the classical psychoanalytic conception. I am convinced that there is no biological-genetic process within the child that determines the aim of desire. However small a child may be, it lives out its relationship to the world and its relationships to others in an extremely creative and constructive manner. It is the schematizing of the child's semiotics by the school as a form of power that causes a type of schema of non-differentiation. (1986,215 ff),

and, we would like to add, just as much so by all the other forms of power within the contexts in which the child lives: in the family, in the mass media, in the totalization of commodity-price relationships within social relationships.

We would like to pose the following general question:

What is the productive, critical-analytical potential of this concept of desire for a re-interpretation of the fundamental concepts of the cultural-historical paradigms?

Is it possible to realistically analyze the origin of the higher mental function in our social reality? If yes - how?

Is it possible to claim this also for the other concepts as for

- the concept of cultural development of behavior
- the concept of mastery of behavior by internal processes
- the concept of personality (Leont'ev)?

Only empirical and above all high-quality research can discover what productive, critical and analytical potential this conception of desire might have.

4. WORKS OF ART AS REVERSED ARTIFACTS AND ART'S POTENTIAL FOR REFLEXIVE LEARNING

At a central sequence in Visconti's film, we note how the protagonist watches a movie and becomes engrossed in her dreams, and how the film as a whole deals with the destruction of her illusions. The film within the film presents the simultaneity of illusion and disillusionment and, for the audience watching Visconti's film, it becomes a means of reflection on the nature of cinema in general and on one's own relation to this medium, etc. The film allows the observer his or her freedom of interpretation and provokes reflections and self-reflections.

This ability to present something and at the same time to thematize the presentation itself as a presentation seems to us to be an indication of the greatness of works of art. Such a presentation is always also the destruction of any unmediated perception of presentations – the destruction of presentation. Such presentations do not represent reality, the world, but, rather, reflect our activity in the world. Representation does not consist of the objects it designates.

This self-referentiality of art has enjoyed a practically inexhaustible variety of forms and possibilities in the course of its history. To make mention of just a few of these forms we would like to note some basic principles and mechanisms involved in perception as aptly described by Falk Seeger. He shows some pictures well known dealing with the "figure-ground-relationship" within the psychology of perception as for instance *Figure 1*.

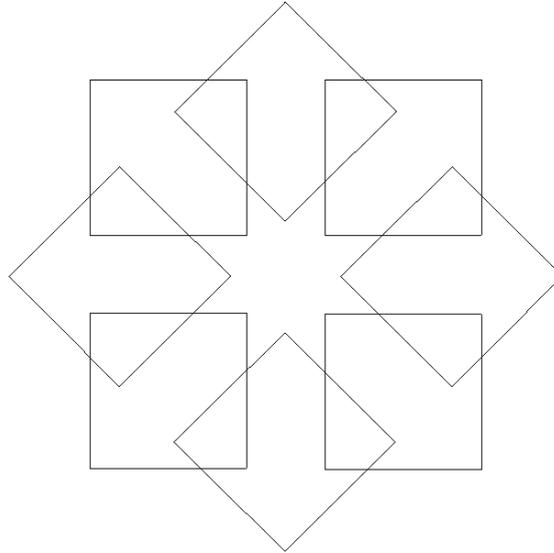


Figure 1. A complicated self-referential picture: A Sufi mandala

If the person, looking at one of those figures, focuses on one of its parts (...) the figure switches after a while: What had been at the forefront now seems to be at the back, and vice versa. (...) The usual semiotic function of the sign as pointing or referring to something else that is not given in the sign or picture is short-circuited because the image refers to itself. As a consequence, the viewer is “left to her or his own devices,” so to speak, and the normally unconscious processes of perception are made conscious. (...) The key to an understanding of the psychological functioning of those pictures is Vygotsky’s idea of “reverse action”, of producing an artifact that is operating on the individual, not on the environment. (Seeger 1998, 330)

The here given picture is a “pure case“ of self-referentially, it demonstrates the effect of self-referentially and nothing else. In work of arts self-referentially is an origin of an enormous explanatory potential.

Works of art are not primarily objects. They can be made to be such – as a commodity, as a fetish, as a status symbol, etc. Works of art are artifacts that mediate a relationship. What sort of a relationship? Each individual work thematizes art as a relationship. Art defines itself in relationship to what it is not. It is neither a product of labor nor is it nature, but, rather, something that does not exist in this empirical sense: namely, free form and “definite negation“ of our accessible, consummate world.

In contrast to our relationship to nature or to work, our relationship to art is one in which we do not *objectify* ourselves and other things, but, rather, as Marx expressed it: one in which man “behaves towards himself as to a universal, and thus, free entity“.

A work of art does not represent anything. Nothing else can be put in its place. By contrast, I can present the spoken word “tree“ in sign language or in any alphabet used somewhere in the world, and it can always be related to a particular object.

Cezanne’s pictures of Mont Saint Victoire do not represent a mountain with the purpose of illustration or documentation. They do not convey any meaning of or symbolize empirical reality – they do not refer to anything beyond themselves. These paintings are art in an immanent sense. They establish a relationship to art that continually asserts itself against their reification. These pictures refer only to themselves. But what differentiates them from the “pure cases“ in which pictures thematize perception itself?

We would like to illustrate the particular potential of the self-referentiality of works of art with the following two examples:

Kafka’s “The Castle“ : The character of the surveyor K. is not based on some historical model and is not conceived of as representative for a figure of some particular social standing. He is a character who is anonymous, even with respect to himself, among other anonymous characters. No one knows anyone else, even though they all meet each other and speak to each other. In “The Castle“ everything is narrated just as it happens to K., as he sees and understands it. There is no relationship whatsoever to any reality beyond the confines of the novel. Any concrete form of reality is totally absent. The castle does not symbolize some ruling power of which K. is a subject. And yet power and powerlessness and totalitarian coercion are present in every sentence. In the novels by

Zola, the world of social misery, the exploitation of workers is realistically described from the *outside*. Zola's characters were present and still are in a great variety; but they always remain where they are in actuality. Kafka writes *within* the fictional character of K., which only originates while reading and makes reading a formidable experience: I do not read the words, but, rather, the words read me and they determine the rhythm and tone of my reading.

Velázquez's "Las Meninas": The painter, Velasques himself pauses during his work. His gaze bores into the room where we, the observers, are to be found. The majority of the persons present in the scene on the left side of the easel also concentrate on the space in front of and outside the painting, which is actually our location. In the background a mirror hangs on the wall, but does not reflect the models, the royal couple, but, rather, a part of the picture that Velászquez is painting and that we can only see from behind. The painted frame almost collides aggressively with the surface of the canvas on which the entire scene is presented.

The idea of the reflecting mirror – one of the great themes of European painting – is reversed in this image: painting itself, and not reality, is reflected.

In the background, in the opening leading to another room, we see Jose Nieto de Velázquez, the queen's chamberlain. He is behind the scene in much the same way as we are before it. Velázquez is facing us; he enjoys the privilege of being able to see the picture. All of the lines in perspective converge at his hand. This hand grasps the perspective schema and manipulates the curtain.

As a whole, this work is a painting about painting: its theme is art as a relationship. Velázquez's replies to the question of what artistic representation is in the form of an aporia: He openly reveals his countenance, yet he conceals his work. "Las Meninas" is a picture open to an infinite variety of interpretations. Velázquez permits the observer to have freedom to interpret, but at the same time he forces him or her to meditate on the paradox of representation.

What, now, might be the potential of the self-referentiality of art for reflective learning? It is certainly not a one-to-one correspondence. This would mean to study the system comprised of works of art, their reception, and their effects with reference to the mechanisms involved and to construct a model of reflective learning from these

mechanisms. But the explanation of works of art by the proper authorities seems to be more of a dead end.

Art is not didactic, art is not pedagogic, nor is it technical. Works of art are not instruments for practical problem-solving. Works of art mediate a relationship by providing space for the development of thought.

University of Siegen

NOTES

Translated by Thomas La Presti

¹ More than thirty-five years ago, Michael Otte introduced a group of students that I was a member of to the main figures of the cultural history school (Vygotsky, Leont'ev, Luria, and Dawydow) in a way especially typical of him – by explaining theories as perspectives. The criterion of their appropriation and implementation can be formulated by posing the question: Do they help us to make our experiences capable of development? This essay is an expression of my thanks to him for these insights.

² Collaborating in various projects with Maria Benites I'm indebted to her for this perspective on Deleuze and Guattari.

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