# *Is "Facilitator" the Right Word? And on What Grounds? Some Reflections and Theorizations*

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In their paper entitled *Between chaos and entropy: Community of inquiry from a systems perspective,* Nadia Stoyanova Kennedy and David Kennedy define what they mean by a community of inquiry, and in particular the role that the "facilitator" needs to take in this context. As an example, consider this explanation, out of numerous others, present in the paper:

On the other hand, the facilitator triggers the system through raising counterexamples and counter-claims, emphasizing certain elements of the argument, introducing new perspectives or questions when the inquiry seems to have lost direction, or making procedural suggestions—for example moving to a different question that is directly or indirectly related to the concept or problem under inquiry. (p. 10)

Thus, with this sort of explanation, we are far from the usual guide that helps participants in *their* inquiry. Indeed, what is described and defined as a "facilitator" throughout the paper appears to be far from, and imply much more than, the usual usage of the word "facilitator"; be it coming from some vague constructivist ideas in education or simply from our everyday language. In fact, Stoyanova Kennedy and Kennedy explicitly state that the "facilitator" is also a "co-inquirer," (p. 4) leading us even farther from the usual image of the guide-on-the-side that the idea of a "facilitator" suggests. The "facilitator" in this description is seen to be very active and preoccupied with—constantly acting with, but also acting on—the participants in the community of

inquiry. This helps to reaffirm the importance of the person we name the "facilitator," as well as redefining its role or even "renaming" it with a better word/metaphor.

The citation I have raised above embodies also another important idea; that of the "trigger." The idea of "trigger" offers an interesting image to define what the actions of the "facilitator" can be. And this is important because even in 2010 there are still researchers in different educational fields that see the "facilitator" as being a technician that helps learn, or as a variable to control, or again as someone who does not play a role in the learning of the participants in the educative environment, whatever this environment may be. The paper of Stoyanova Kennedy and Kennedy leads us far from this archaic view of the learning milieu and gives important agency to the "facilitator" in this milieu.

To contribute to this enterprise, and as a response to Stoyanova Kennedy and Kennedy's paper, I attempt to ground some of the ideas offered concerning the "facilitator" with/in research and theory. One obvious strength of their paper is the presence of exhaustive descriptions. But, it is also its major weakness as it lacks a rationale for grounding all it asserts. There are many ideas, in the form of descriptions and definitions, brought forth concerning the role of the "facilitator" in this paper. These various and numerous descriptions lead us to reflect on the phenomena at hand of the "facilitator," but as a reader one lacks the underlying explanations, the groundings that lead to think that way, the supporting reasons for what is offered, etc. In short, these ideas stay at the descriptive level. I therefore attempt, in this response, to offer some theoretical and research oriented grounding for some of the ideas put forth in their paper-but only some of them and interpreted in my own way, obviously. This is achieved through working with aspects of the framework of the theory of cognition of Maturana and Varela (e.g., 1992) - a theory that the authors cite at different places in their text. The intention in this response is therefore to push and ground these ideas of the "facilitator" further, as well as depart from some of them, from a research and theoretical point of view. Even if richly stated and orchestrated, I believe that without its theoretical grounding the discourse around the "facilitator" becomes a heavy discourse, one often hard to follow and to appropriate for oneself, as it appears to be more of a "know-how" guide to become a "facilitator" than a way of reflecting on its role. The theoretical grounding offers, in return, a guideline or a thread around which all the ideas gather, unfold and, hopefully, make sense-as it offers useful distinctions that can help make sense of the phenomenon at hand. This thread escapes and goes beyond the descriptive "know-how" guide, as it helps the reader to enter into a mindset; a mindset from which the ideas follow and unfold more naturally from one another.

I do this using my own research work, situated in mathematics teacher education, where the "facilitator" is a "teacher educator." This move is voluntary, as it is my domain of expertise, but also it is a way to escape the use of the word "facilitator" by using the expression "teacher educator"—since it is my deep belief that "facilitator" is too weak as an expression or metaphor to understand and make sense of the role that this person needs to undertake to provoke learning in participants within a community of inquiry. Thus, to help contextualize the ideas that I work from, I offer a glimpse at the

current state of affairs (ideas, debates, questions, etc.) concerning the role of the teacher educator in research in teacher education. I then present some ideas of Maturana and Varela's theory of cognition to address ideas brought forth about teacher educators. And, it is through this theoretical lens that I develop orientations concerning the role of teacher educators—a role that takes it far from the one of the "facilitator" and closer to Stoyanova Kennedy and Kennedy's notion of "trigger," an idea extensively used and developed in Maturana and Varela's work.

# Research on Teacher Education: The Potential Role of the Teacher Educator

In her report of a lesson study environment for the professional development of mathematics teachers, Fernandez (2005) raises important issues concerning the potentially limiting impact of teachers interacting exclusively with other teachers during in-service education initiatives (that is, without a teacher educator that intervenes in the process). Focusing on teachers' learning opportunities, she concludes that the mathematical tasks teachers were exploring were not always as insightful and provocative to the teachers as she thought they might have been and notes that "often the exchanges that took place did not push the teachers' thinking as far as they could have or sometimes even took them in unproductive directions" (p. 278). She then raises issues of the importance of the presence and role of a teacher educator:

This learning was no doubt possible because lesson study created a rich learning environment for these teachers in very much the same way that rich classroom tasks like those employed in reform classrooms set up opportunities for students to learn. However, although students learn a lot from working on such tasks, nevertheless a teacher who can push, solidify, and sometimes redirect their thinking is critical. Similarly, the teachers described here could have benefited from having a "teacher of teachers" help them make the most out of their lesson study work. (p. 284)

These issues have been widely echoed in the recent literature on teacher education, concerning the role that teacher educators can or should take. Issues about the importance of having an "external intervention" that could lead participants (here teachers) to see differently or from a new perspective have indeed been highlighted by Margolinas, Coulange and Bessot (2005) in their study of teachers' learning from their practices, leading them to question: "how can the teacher learn without any external intervention?" (p. 229). Similarly, Noyes (2004), referring to Bourdieu's theoretical construct of *habitus*, discusses strong engrained ideas and ways of doing that are systematically reproduced by participating teachers and how the teacher educator's role appear important to attempt disrupting potentially problematic views and ways of doing—something that Cooney and Wiegel (2003) also bring forth in their literature review of mathematics teacher education practices.

Discussing related issues, Al-Issa (2005) articulates the powerful role, the influence and the responsibilities teacher educators have to bring about some changes and encourage participating teachers' learning. As well, in their empirical study of teachers conducting action research, Ponte, Ax, Beijaard and Wubbels (2004) showed how teachers, left to themselves in a group to discuss and interact (without any external intervention of a teacher educator), tended to stay and focus at a technical level of learning and knowledge, whereas through interventions and interactions with a teacher educator they were able to achieve a higher level of thinking and ideas. This led to the view that a lack of external intervention could result in superficial learning by the group of teachers (see also Gustafson & Gibbs, 2000, and Le Fevre & Richardson, 2002). In Rousseau's (2004) report on a professional community of mathematics teachers who had strong intentions to adopt reform-oriented practices, she illustrates how teachers who were "left to themselves" to make sense and adopt these practices with no external intervention from teacher educators (except to provide specific materials) finally abandoned their idea of adopting reform-oriented practices, not being able, or pushed, to address and question the conflicting issues and beliefs they held. Rousseau concluded by saying that these teachers, this learning community-maybe even this community of inquiry to use Stoyanova Kennedy and Kennedy's words-would have benefited from an external intervention to help "the community recognize and address the internal inconsistencies and discrepancies in its beliefs [which] might have supported the teachers in their efforts to change" (Rousseau, ibid., p. 795).

Thus, in their own way, these examples of studies point to the significance that the role of the "facilitator" (here a teacher educator) can have in inquiry settings (here, teacher education settings). But, what exactly is this role about and how can we make sense of this through a coherent framing? My belief is that various constructs brought forth through the theory of cognition of Maturana and Varela can help deepen our understandings of these various ideas and preoccupations. I present some specific aspects of this frame below.

# Maturana and Varela's theory of cognition: A Different View of Learning and its Implications for Acting in Professional Development<sup>1</sup>

Maturana and Varela's theory of cognition (e.g., Maturana & Varela, 1992) is a theory of cognition which views human knowledge and meaning-making as processes that are understood and theorized from a biological and evolutionary standpoint; in short, our biology matters in the process of coming to know. Specifically important for this discussion on the roles of teacher educators are two specific notions: structural coupling and structural determinism.

# Structural coupling and structural determinism

To make sense of the process of survival of species, Darwin uses the concept of "fitting." For species to survive, it must continuously adapt to its environment, to *fit* within it. If not, it would perish. In a sense, Darwin offers a pejorative or negative view of the survival of species: species that survive simply do not die—and continue to adapt. As

<sup>&</sup>lt;sup>1</sup> Aspects reported in this section are inspired from a paper I have previously published in *Complicity* (Proulx, 2008).

trivial as this point may seem, it creates an important break from ideas of absolutism and universality which were dominating evolutionary thinking at the time. The idea of "fitting" escapes notions of absolutism and of the best or fittest species. The idea is now that species are compatible and fit within their environment; it does not represent the absolute species but simply a fitting species, one adequate for the circumstances of the moment.

The concept of fitting is not a static one in which the environment is constant and only the species evolves and continues to adapt. Darwin explained that species and environment co-evolve; Maturana and Varela (1992) add that they *co-adapt* to each other, meaning that each influences the other in the course of evolution. In other words, the fit is an evolving one, with both parties evolving, leading Capra (1996) to assert that this creates a shift from evolution to co-evolution<sup>2</sup>. The idea of co-evolution between the environment and species is key in regard to the origin of changes or adaptations of species to its environment. By co-evolving, species and environment experience a history together and influence each other in this process. This is why it sometimes seems as if some species are so compatible with their environment that they appear to be "perfectly made for it," and, inversely, that the environment seems perfectly suited for the species.

This co-evolution is called *structural coupling* by Maturana and Varela, because both environment and organism interact with each other and experience a mutual history of evolutionary changes and transformations. Both environment and organism undergo changes in their structure in the process of evolution and this makes them "adapted" and compatible with each other:

Every ontogeny occurs within an environment [...] it will become clear to us that the interactions (as long as they are recurrent) between [organism] and environment will consists of reciprocal perturbations. [...] The results will be a history of mutual congruent structural changes as long as the [organism] and its containing environment do not disintegrate: there will be a *structural coupling*. (1992, p. 75, emphasis in the original)

From this notion of structural coupling, it follows that the environment does not act as a selector nor does it predetermine or cause evolution: rather, it is a "trigger" for the species to evolve, much as the species acts as "trigger" for the environment to evolve in return. The authors explain that events and changes are occasioned by the environment, but they are determined by the species' structure.

Therefore, we have used the expression "to trigger" an effect. In this way we refer to the fact that the changes that results from the interaction between the living being and its environment are brought about by the disturbing agent but *determined by the structure of the disturbed system*. The same holds true for the environment: the living being is a source of perturbations and not of instructions. (1992, p. 96, emphasis in the original)

<sup>&</sup>lt;sup>2</sup> Even if I do not go down this explanatory route here (for simple matters of irrelevance for this current paper), there exist points of junction as well as points of rupture between Darwin's theory of evolution and what Maturana and Varela (1992) offer. For more details on this, see Maturana and Mpodozis, 2000.

Maturana and Varela call this phenomenon *structural determinism*, meaning that it is the structure of the organism that allows for changes to occur, changes "triggered" by the interaction of the organism with its environment. They give the following example: A car that hits a tree will be destroyed, whereas the same thing would not happen to an army tank. Changes do not reside inside of the "trigger" (inside the tree), they come from the organism interacting with the "trigger." Thus, the "triggers" from the environment are essential, but they cannot determine the changes. In short, changes in the organism are dependent on, but not determined by, the environment (the same could be said for the changes in the environment in relation to the organism). With this, structural coupling can be redefined in terms of the history of co-evolution and co-influence of species and environment, determined by each parties' structure; an organism's structure allows for the changes to occur. These notions have significant implications for teacher education contexts.

In regard to teachers' professional development, a similar illustration can be taken from Grant, Hiebert and Wierne's (1998) study where teachers were offered videos of reform-oriented mathematics teaching practices for them to see examples of such practices, make sense of them, and draw out some principles for their own practices. It was found that a number of teachers, who saw "mathematics as a series of procedural rules and hold the teacher responsible for students acquiring these rules" (p. 233), were not able to see significant differences between these practices and their own and tended to focus on technical aspects of the lesson and the material used. For Grant et al., this showed how offering videos of innovative practices was not a panacea for teachers' professional development since teachers needed to be able to appreciate what was in the video to see these differences and innovations. Using the ideas just discussed, one could interpret that it is not that the teachers did not see the differences between the reformoriented practices presented in the videos and their own classroom practices, but that for them these were not present as differences. In order to notice or appreciate these potential differences, the teachers needed to be aware of the possibility of these differences and be able to understand what they were. The same can be said of Fernandez's (2005) study mentioned above, in the sense that it was not that the teachers did not see the mathematics in the problem, but that the mathematics that she herself saw in the problem was not present for these teachers-their interpretations led them somewhere else. Simon's (2007) point that "we see what we understand" is of relevance here for these potential learning situations: teachers' knowledge, their structure, did not allow them to "see" these distinctions (that were apparent to the teacher educators offering learning opportunities). In fact, it could be said that we stating that there are differences in the videos or mathematical aspects in the tasks offered is also representative of our own "blindness": we simply do not realize that it is we who see them and that someone else could not see these distinctions. Or, simply, we make the assumption that these properties are present in and of themselves in the tasks offered and that these would determine teachers' reactions-leading to our conclusion that "Hum! They did not see that." One could assert that it is not that teachers did not see, but simply that there was nothing for *them* to see in these tasks. Thus, the interest in

having teacher educator and teachers interact around tasks and situations is an attempt at bringing forth and confronting the "seeings" of both parties.

## The learners in the teaching situation

With the concepts of structural determinism and structural coupling, participants' learning, or change, are not seen as causal events determined by an external stimulus (even though they are "triggered" by that external stimulus). Rather, learning and change arise from the participants' own structure as it interacts with its environment. This underlines the importance of the "learners" (here teachers) in the learning situation and, as is often noted, that these learners must be taken into account in how inquiry sessions and group discussions (can) unfold. Thus, what is offered to teachers during teacher education sessions does not inherently possess the "power to educate" in itself, but must resonate with and be taken up by teachers in order for them to make sense of what they have been offered. (One recalls Fernandez's (2005) previously cited accounts. As well, Yusko (2004) discusses how the questions he asks as a teacher educator are interpreted in different terms by his interns, not leading them to engage in the reflective activities he had planned, because they did not see them as opportunities to engage in reflection.) From this, it follows that the outcomes or effects that inquiry sessions can have on participants are determined by the participants, even if the participants are "triggered" by what is offered to them. If one accepts the concept of structural determinism, then one accepts that anything offered as a situation, a task, a comment, etc., for participants to explore, think about or learn is at most a "trigger." The participants' explorations are oriented by their own understandings and meanings of these situations and tasks, and by what constitutes issues to explore for them. Varela (1996) refers to this issue as problem posing.

## Problem solving and problem posing

Varela (1996; Varela *et al.*, 1991) explains aspect of structural determinism in terms of the difference between problem solving and problem posing. Problem solving implies already present problems situated in the world and lying "out there" waiting to be solved, independent of us as knowers. For Varela, because of our co-determination with the environment in which we live, because we have a structure and because we are coupled with that environment, problematic situations emerge for us in the sense that we specify the meaning that these situations have and how we deal with them. These problems do not lie "out there," objective and independent of our actions. We specify the problems we encounter because of our structure that enables us to act and recognize things in specific ways.

The most important ability of all living cognition is precisely, to a large extent, to pose the relevant questions that emerge at each moment of our life. They are not predefined but *enacted*, we *bring them forth* against a background, and the relevance criteria are oriented by our common sense, always in a contextualized fashion. (Varela, 1996, p. 91, emphasis in the original, my translation) The problems we encounter and the questions we undertake are as much a part of us as they are part of the environment. We interpret events as issues to address: we see them as problems to solve. We are not acting on pre-existing situations, our co-determination and interaction with the environment creates, enables and specifies the possible situations to act towards. The problems we solve are then implicitly relevant for us and are part of our structure. Our structural determinism allows these *to be* problems for us, as the environment "triggers" them in us. Some "issues" of the environment that would "trigger" elements in some persons do not "trigger" the same elements in others. The effects of the environment are not *in* the environment, they are made possible by the organism's structure in interaction with its environment.

This is a powerful distinction because it offers a frame that explains that the issues addressed and explored in inquiry sessions are the ones that resonate with and emerge from the participants' structures or ways of knowing. Simply put, regardless of the situations and tasks that are offered to the participants (here the teachers), the issues addressed or the orientation of the explorations taken cannot be pre-decided. Although these will be "triggered" by the situation or task offered, they are explicitly determined by the participants' knowledge/structure. Hence, community of inquiry sessions go in directions related to the participants knowledge and ways of making sense of the tasks that are offered to them or the discussions they engage with. There is no linear path or trajectory that can be pre-traced and, therefore, despite of the planning and intentions of the teacher educator, there is no guarantee that specific issues will be dealt with, and many emergent issues can pop up continuously. In Doll's (1999) words, teaching is nonlinear (see also my theoretical construct of "objectives to work on" published in Proulx, 2005). The tasks and situations offered are there to "trigger," and participants explore and make sense of them in the ways that they can; nothing can be forced or directly transferred: what participants learn is determined by who they are and what they know. This perspective leads to some implications for the meaning and role of the teacher educator.

# Implications for the Role of the Teacher Educator

While the major burden is on the students to explain what they think, I actually do try to say much of what I myself believe on the subject of teaching and learning. I often remark on what I see in our work together and I try to say what I think about issues that students raise. (After all, I too am grateful for the occasion to learn from trying to say clearly what I think.) Yet, I have no illusions that what I say will mean the same thing to others as it does to me, nor that the students will, in general, give credence to what I say. But what I say does add to the assortment of things they have to think about. (Duckworth, 1987, p. 488)

Understood through the concepts of structural determinism and structural coupling, and of "triggering" learning, the teacher educator is defined as more than a guide and becomes a fundamental part of the participating teachers' learning processes or, simply put, of the teaching dynamic in the community of inquiry settings. In the same way that for an organism everything else is part of "the environment" that "triggers," for a

participant (here teachers) the teacher educator is part of the "learning environment" that "triggers." I elaborate on what this position can mean for the role of the teacher educator and his or her actions.

# Structural determinism and teaching

The concept of structural determinism implies that the individual knower has some sort of agency over the type of effect that can be produced on him or her. The effect on teachers of what a teacher educator says or does is therefore not pre-determined, and is determined by the teachers' own structure (their knowledge). Obviously, the "inputs" of the teacher educator provokes something, influences the process, and plays a role. But the type of role and how this is taken up needs to be seen as determined by the structure of the participant itself, and not by the actions and words of the teacher educator. In the same sense that the environment acted as a "trigger" on the organism or species, the teacher educator's interactions and interventions act as "triggers" in the learning process of teachers. The role of the teacher educator then becomes one that attempts to "trigger" teachers with ideas, concepts, notions, nuances, and so on. That role is thus central in the learning process of the participating teachers, where it shapes the sphere of possibilities (Kieren, 1995) and opens/creates spaces of emergence (Davis, 2004; Osberg & Biesta, 2007). This perspective importantly contrasts with the account of having participants left alone, as was criticized in the different studies previously reported on, and contrasts with perspectives that attempt to impinge direct changes on participants.

# Structural coupling and teaching

But these actions are also such that every action influences and changes every other action and the world (in this case the classroom) in which they occur. (Kieren, 1995, p. 8)

Structural coupling brings the idea that both teachers and teacher educators evolve and co-adapt to each other in the learning process/professional development dynamic. Two significant outcomes can be perceived from this. The first one is that the teacher educator becomes *complicit* (Sumara & Davis, 1997) in the participating teachers' knowledge. The teacher educator influences what is learned by interacting and coupling with teachers. As Sockett (1993) explains, "a [teacher educator] is one who helps to shape what a person becomes" (p. 13, cited in Day, 2004, p. 155). Hence, the teacher educator is "within" the participating teachers' knowledge and cognitive acts. By being structurally coupled with teachers, the teacher educator cannot help but influence and orient the learning that happens, hence becomes complicit in the knowledge developed by teachers.

Secondly, with this structural coupling, just as the teacher educator's actions act as "triggers" for the learning of teachers, the participating teachers' actions, comments, interactions, and so on, can be seen to *reciprocally* act as "triggers" for the learning of teacher educators. And many authors have address this issue, to different degrees and implicitly or explicitly, of the teacher educator learning while teaching teachers (e.g.,

Doll, 1999; Duckworth, 1987; Feiman-Nemser, 2001; Jalongo, 1991; Le Fevre & Richardson, 2002; Yusko, 2004). Kieren is also explicit on this issue:

But this is what a good teacher does—occasions learning. To allow this to occur [the teacher] provides the possibilities or keeps open the possibilities which occasion such learning. [...] teachers can observe and learn from and with their students, helping them bring forth a world of mathematical significance and in fact, bringing it forth with them [...] learning is a reciprocal activity [...] in which the students and the teacher learn from one another and the situation in which they exist. (Kieren, 1995, p. 2)

Consequently, this raises the point that teachers and teacher educators develop a history together and become structurally coupled: they both learn and co-evolve in that history of relationship.

# Educating teachers

These points underline that the role of the teacher educator is to intervene in the process, to "educate" teachers, to be complicit in their learning and to have them learn/address issues and aspects-that is, to influence teachers along the way by acting as a "trigger." In other words, this means that the teacher educator does not stand at the side of the participating teachers, waiting for learning to happen like a "guide on the side" or a "facilitator" of the learning process. And this is another reason why the metaphor of the "facilitator" is limited and even disruptive, since teacher educators get in the way, provoke the learning process, orient ideas and influence what is learned, create opportunities, influence teachers willingly, and so on, to allow teachers to reach, as Colby and Atkinson (2004) report on their assisting performance approach, "greater levels of understanding than they could have accomplished independently" (p. 358) (see also Ponte et al., 2004). However, as mentioned, this is not implying a "transmission" view of teacher educating by saying that things can be "caused" or forced in participants. And, this is what Maturana and Varela's theory of cognition offers. It offers some sort of a perspective in between by explaining the importance of acting as a teacher educator but also that this "acting" is in no way a direct influence, as changes are not determined by teaching, but dependant on participants' structure.

# The subjectivity or structural dependence of teacher educator's interventions

One then realizes that the teacher educator's interventions aim at being "triggers" for participating teachers, in regard to what the teacher educator him- or herself believes important to be addressed, that is, in regard to his or her own views and understanding (Duckworth, 1987). In other words, the teacher educator makes choices, which are aimed at educating teachers. Again, the teacher educator is not neutral but rather orients the work from his or her own perspective (Bednarz, 2000). The relevance of the issues raised by the teacher educator comes from within the structure/knowledge of the teacher educator, and do not represent issues that *have* to be tackled (as if they were universal). The teacher educator raises issues as he or she is triggered by the "back talk" of the

situation (Schön, 1983) and feels an interest/relevance in probing on them. Adapting Kieren's (1995) words for teacher education settings, we obtain the following:

Thus each [teacher]'s learning is co-determined by the occasions each draws from the possibilities of the [teacher education session]. There is a fundamental circularity in the teaching and learning in such a [session]. The [teacher educator] is influenced by the possibilities which arise from [teachers'] actions but these are influenced by the [teacher educator]. (Kieren, 1995, p. 17)

Teacher educating thus becomes circular and mutually influenced. The teacher educator's interventions are not ultimate or absolute; they come from within the teacher educator's structure/knowledge, as much as emerging questions of teachers come from their own structure/knowledge—both are influenced as well as influence the other.

As final notes, I offer below some tentative theoretical assertions, coming from the previous arguments and explanations, about the actions of the teacher educator—again drawing him or her far from the "facilitator" metaphor.

# Some Potential Orientations for the Teacher Educator's Actions

By using the concepts of structural determinism and structural coupling, the dynamic of the teaching education process can be looked at from another lens. The teacher educator's interventions act as possible "triggers" in the learning process of participating teachers and that these will be significant in teachers' learning is determined by teachers' own structure and knowledge. This leads to the first two theoretical assertions:

*Learning is not determined by, but can be occasioned through teaching.* And so unfolds that (second assertion):

If the teacher educator "tells," nothing guarantees that learning will occur, but if he or she does not tell anything, potentially nothing will happen either. In reciprocal terms, the teachers' actions, comments and interactions act as possible "triggers" in the learning process of the teacher educator. Teachers and teacher educator co-influence each other, co-adapting and co-learning in the process. This leads to a third theoretical assertion:

Both teacher and teacher educator learn in the teaching dynamic. The teacher educator and the teachers are both part of this structural coupling—they both learn within it—and so the teacher educator is an active element in the teaching dynamic, as much as he or she is an accomplice in teachers' learning. The teacher educator and the teachers bring forth a world of significance together (Kieren, 1995). The teacher educator does not "let learn" or "facilitate" learning, but actively participates and intervenes in, as much as provokes, the learning process with his or her "triggers." This leads to a fourth and fifth theoretical assertions:

*The teacher educator has an active role where he or she intentionally "triggers" and provokes learning issues, and* 

The teacher educator influences, and is part of, the knowledge and learning of the teachers (and vice-versa). Thus, teachers and the teacher educator are structurally coupled in the learning process and both are driven by their own structure/knowledge in this learning process. This coupling produces a history of mutual adaptations, learning and

knowledge. Obviously some knowledge is not adapted and does not "survive." The structural coupling of both parties depends on adapted understandings, and so the coupling cannot continue if one of the parties' knowledge stops adapting. Moreover, disagreements or negotiations of meaning are a fundamental part of the interactional or coupling process. This leads to a sixth theoretical assertion:

The teacher educator (and teachers) has (have) to flag what is believed to be inadequate knowledge, and interact/negotiate about it.

# **Concluding Remarks**

The intention in this response was to ground ideas about the "teaching of participants in a community of inquiry" in theoretical foundations that could help to assemble and get a better grasp on these issues and their outcomes within learning settings. I have grounded and structured these ideas and preoccupations using the lens of the theory of cognition of Maturana and Varela as a guiding thread. It is my belief that this theorizing brings forth new distinctions and has the potential to continue stimulating thoughts about issues and preoccupations concerning the role that a "teacher of a community of inquiry" ought to play to enhance participants' learning processes.

This said, by criticizing the metaphor of the "facilitator" to describe this "teacher" role, I am pushed to find a new or "better" metaphor to define the role of that person in the community of inquiry learning environment. But, I do not comply with this. However, one way of ending this discussion is to offer Duckworth's (1987) inspiring idea of what a teacher is, which summarizes some fundamental aspects of my own thoughts:

By "teacher" I mean someone who engages learners, who seeks to involve each person wholly—mind, sense of self, sense of humor, range of interests, interactions with other people—in learning. (p. 490)

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