

# ISSA Proceedings 2006 ~ The Rules Of The Critical Discussion And The Development Of Critical Thinking



The purpose of this paper is to discuss the concept of critical thinking as an operative concept that makes it possible to generate a strategy for developing critical abilities in the students and, in this way, to achieve one of the most important objectives of the Chilean Educational Reform.

It is evident that the concept of critical thinking is vague. Many authors have different perspectives about this concept and, to some extent, they contradict each other. My intention is not to intervene in this controversy, but to look for a solution in a different direction. This means using a methodology that allows us to determine some basic characteristics of the concept of critical thinking avoiding dealing with general conceptions of the concept. The main objectives are then to establish a list of the most important characteristics that allow the development of critical thinking among the students.

## 1. *Conceptual analysis*

What I am going to do is to analyze the concept of critical thinking in the same way that anyone would analyze concepts such as democracy, education, science, etc. I will make use of the technique of conceptual analysis as developed for John Wilson (1960, pp. 1-49). In Wilson's conception, these concepts are called philosophical concepts, because even though we know how to use them in some contexts, we do not know the boundaries of each concept or, simply, such limits are open or don't exist. We know, nevertheless, some typical cases that are central to the concept. This means that nobody that would use these concepts could ignore them as instances of such concepts. So we can use these instances in order to obtain some specific characteristics of the concept, and we can avoid the difficult task of defining the general concept of critical thinking.

In the case of critical thinking, one of the central instances is, of course, logical abilities, or more specifically, the ability to infer consequences from some principles or assertions. It would be strange to say of a student that cannot infer consequences in a correct way that he is a critical person. It is obvious that one of the main characteristics of a critical student is the ability to distinguish between correct arguments and fallacies or incorrect arguments. Therefore, Wilson's methodology consists in dealing with specific instances of the concept, the central ones in the first place and, then, we continuing attempting to explore the limits of the concept analyzing the consequences that follow from each of these instances. What does logical ability imply?

## *2. Formal arguments*

In the first place, logical ability means that we understand that our opinions should be supported by reasons. And, because of this, we acknowledge that our opinions could be questioned by other people and that this is the reason why we need to give reasons. Besides, since our opinions are closely connected with our beliefs about the world, we can say that the logical ability helps us to develop a way to question our beliefs, in the sense that when we are looking for reasons to back our opinion we are, at the same time, trying to be rational with regard our beliefs and we are trying to understand why we do believe what we believe. From this perspective, to think critically is to make an idea of the world by myself and the reasons that I choose to support my opinion reflect my personal view of the world , therefore, philosophical reflection and critical thinking are, on this point, closely related.

In a general way, logical ability provides a basic tool to obtain the mental flexibility that appears to be one of the main characteristics of critical thinking. We mean by flexibility the ability to see the world and its functioning from different points of view. We can give examples of such flexibility by referring to some of the brief definitions of critical thinking that Johnson discusses (1992, p. 217), for instance, "reasonable, reflective thinking that is focused on deciding what to believe or not to believe" (Ennis), "the skill and propensity to engage in an activity with reflective skepticism" (McPeck), "Skillful, responsible thinking that facilitates good judgment because it (1) relies upon criteria, (2) is self-correcting and (3) is sensitive to context" (Lipman).

Of course, there are many other characteristics that are essential to critical thinking, and some of the definitions already quoted suggest them, but our

analysis is just starting. Logical ability also implies being acquainted with the specific mechanisms that connect the opinion or point of view and the reasons. These mechanisms are, in the first place, the rules of deductive inference. They produce the coherence of the argument. So, the logical ability also contributes to develop the rigor necessary to think critically. These mechanisms connect the reasons with the opinion in a valid way and, in this sense, offer a justification of the reasons. So, we can make a distinction between a valid and invalid argument. A very clear example of what we are saying about valid argument is to refer to scientific arguments because in this case the reasons are based on experiments that anyone could check for himself. If we think in the general scientifically assertion that “if ice is lighter than water, then it must float in water”, we can generalize this assertion saying that lighter liquid floats in the heavier liquid, and we can prove this by making our own experiment with whiskey and conclude that ice is lighter than whiskey because ice floats on the whiskey (of course, if you put enough whiskey). We can see then, how both the deductive mechanisms and also our own capacity to analyze our experience help us to understand how the real world functions. In this way, the deductive arguments increase our mental flexibility and help us to understand the world from our experience.

### *3. Informal arguments*

All of us know, nevertheless, that deductive arguments are not the only type of inferences we can get from an assertion. We also have to consider those that are called informal arguments or argumentation (we are not going to make any difference between them) and their main characteristic is that they depend on the context. In other words, could be reasonable to accept an informal argument in some conditions, but it would be unreasonable to accept it, in a different situation. The acceptance of an informal argument depends on the conditions of the context, for instance, the social factors that affect the environment and also of the quantity and quality of the information that we possess about those factors. A good example is the opinion that John is a very polite person. In order to accept this opinion we have to make an appraisal of the context in which this opinion is expressed. What is true in one context could be false in other. So, there is a big difference between deductive arguments and informal arguments, therefore, we can consider that, according to Wilson’s method, the informal arguments are a new central instance of the concept of critical thinking.

Which are the consequences of this new instance?

In the first place, informal arguments, or argumentation, show some limitations of formal logic. For instance, as we can easily realize the applications of deductive techniques, is useless to solve controversies. In a controversy, in fact, we have to attend to the reasons that support our point of view, but also we have to take into account the reason of our interlocutor and we always have to face the dangers of a balance in the reasons (the reasons in favor are not enough to distort the reasons against a point of view) or, even worse, that the reasons of my opponent could be more powerful than mine. So, we have to look for strong reasons for our position but also for some important considerations that distort the merits of the alternative position. Besides, the rules to decide which position is more reasonable are not mental entities we can derive from our mind and so, they cannot be imposed unilaterally. Both positions must reach an agreement for the rules that are more acceptable for both sides, and, in general, for any person.

Contextual arguments show that critical thinking is beyond the mechanisms of deductive arguments. It would be a distortion, in fact, to think that critical thinking is limited to the mastery of deductive schemes. It is very important to take this into account, because we can be tempted to believe that a critical person is an isolated person trying to developed (deductive) mental procedures that can be cultivated within a solitary consciousness.

This is a distortion because critical thinking also means the ability to engage in public controversies. And this implies not only mental activities, but also social behavior, in the sense that to convince another person that our point of view is acceptable requires that our interlocutor, who defends a position that contradicts our position, collaborates with the rules that allow solving the topic in discussion. The practice of argumentation shows, in fact, that cooperation is crucial to solve a controversy, because we must be careful about what is exactly the point that the other person is trying to support, otherwise people can distort what the interlocutor is saying or, worse than that, they can refuse to listen to what the other person is trying to argue. Moreover, the opinions of our interlocutor could be improved and we have to pay attention to that and also his opinions can help us to improve our own arguments. In some sense, when people are involved in a controversy, they must perform a paradoxical task, since, even though they realize that they have a discrepancy, they agree to discuss in common, with some rules previously approved by both sides, in order to solve the discrepancy of opinions in a reasonable way. From a philosophical point of view, we can make a

distinction between two activities, which we can call dialogue as opposed to competitive debate.

In general, argumentation shows the public side of critical thinking and this is implicit in the abilities that we discussed with regard to formal arguments, since the smallest move we can make in informal logic, as to provide reasons to support our views, imply fulfilling some standards and, therefore, this means justifying our thinking to other people. In summary critical thinking is never a private activity. At this point we can reconsider Wilson's methodology. We started by saying that formal logic and formal argument is a central instance of critical thinking because the techniques involved in presenting a good formal argument help to develop the mental flexibility that we think is one of the main characteristics of critical thinking.

In the second place, we showed that contextual arguments are a second instance for understanding critical thinking. Of course, some people can make many objections against considering together formal and informal arguments. But, as we said before, we are not actually concerned with the distinction between them, but with the consequences that follow from both type of inference. So, we can say that in order to develop critical thinking in the students we have to involve them in the analysis and the construction of formal arguments, but we also have to involve them in the analysis of controversies and in the use of the instruments that help to solve the controversies.

If we think in terms of Wilson's analysis, we can say that to develop good (formal and contextual) arguments is a main trait of critical thinking and bad arguments (poor arguments or, simply, fallacies) are part of the opposite concept (or contra concept). In this way we also can establish some extreme limits of the concept of critical thinking by excluding some instances.

#### *4. The moral conditions*

Some people could consider that the conception of critical thinking that we have trace so far, that is to say, centered on logic and contextual arguments, is an excessively intellectual conception. They may believe that critical thinking must include other types of activities. So we have to analyze the possibility of extending our concept. In Wilson's language we have to look for ambiguous cases (ambiguous instances of the concept) in the sense that they have a mixture of characteristics. Some of them clearly belong to the concept but other traits are

controversial. In order to qualify as authentic traits of critical thinking they must be coherent with the characteristics that we already established.

In order to make clear one possible extension of the concept, I will discuss the rules of critical discussion (pragma-dialectic rules) of Frans van Eemeren and Rob Grootendorst. These authors consider these rules as based on communication principles, and so for them the fallacies are moves that break the process of communication that leads to the solution of the controversy. In this way, they can decide if an argumentation is reasonable or not. The justification of these rules is only instrumental, because we have to follow them just because they help us to solve the controversy. Nevertheless, some of these rules, as the first one: "parties must not prevent each other from advancing standpoints or casting doubt on standpoints." (van Eemeren and Grootendorst, 1992, p. 208) and, above all, the implicit conditions of listening exactly to what the other people are arguing and to respect the turns of the people who participate in the discussion are doubtless moral conditions. This is even clearer if we think of fallacies of disqualification, which are instances of the opposite or contrary concept. We can think, in fact, that these fallacies violate the principle of respect. And because of this we can consider that we are facing a moral principle and, therefore a principle that cannot be justified only in terms of some functionality designed to solve a controversy. The principle needs a strong moral justification.

What I am saying means that we have to move in a different direction in order to understand the development of a critical discussion. We have to consider that the relationship between the arguers is more complex and we have to consider also another type of principles as part of the critical rules. One important clue in this direction is the fact that, in practice, the conditions to solve the controversy are never reached. We can think of the rule 9: "A failed defense of a standpoint must result in the party that put forward the standpoint retracting it and a conclusive defense in the other party retracting his doubt about the standpoint" (van Eemeren and Grootendorst, 1992, p. 209). In an empirical context these requirements are rarely fulfilled, and this is so because the discussions in real life conditions are highly competitive and the main objective of the participants is not to solve the controversy but to put down the interlocutor. For this reasons, it is unavoidable to consider that pragma-dialectical discussions rules are idealistic and so they are inefficient because they cannot solve real life controversies. It is obvious that the rules don't work if the discussion is a competitive debate because

in this case, both parties always try to settle down the discussion and not to solve it.

Nevertheless, if we take seriously the principle of respect, we can develop a community ruled by this principle and in that case we can develop an empirical social space in which to solve a discussion in a reasonable way is possible. So, what we need is a justification of the moral principle of respect.

A very important way to provide this justification is appealing to the Golden Rule. This rule can be formulated as: "Treat others as you want to be treated" or "What you do not want others to do to you, do not do to others". The implication of this rule is to consider equalitarian respect to every people as the basis of moral behavior. Nevertheless, in order to do not distort the meaning of the Golden Rule it is necessary to understand that the rule refers to the behavior of any person in general, i.e., a person without specific preferences, bias or interests. In others words, the equal respect doesn't refer to specific preferences such as: I like chocolate ice cream, so everybody must eat chocolate ice cream or I don't like to talk to other people, so I don't like that the other people talk to me, and so on. Equal respect is crucial to develop a critical discussion and ensure a fulfillment of the rule 9. So, what we need to justify is the equal respect to every person.

A mutual agreement, what seems to be implicit in the pragma-dialectical rules, is not enough because agreements are usually based on the convenience of the participants. But if the convenience is the justification of the moral behavior, then the people could violate the agreement if it is more convenient for their position to act in an immoral way. And a controversy could be a good example of this inconsistency. In some cases, most people would consider that to lose a discussion is more inconvenient than to violate the initial agreement, so, they prefer not to respect the initial agreement about the rules of discussion. In other words, the mutual agreement has a flaw, the mere convenience it is not enough to justify the moral obligation to keep my promises. In a moral sense, nevertheless, I have to respect my promises even if this means to act against my personal interests and it would be an immoral behavior to disregard such obligation and try to get advantages of this, making use of my power position, for instance.

The moral obligation can be justified by appealing to the moral feelings (Tugendhat, López, Vicuña, 1997 pp. 73-90). The moral feelings: resentment, guilt and indignation are defined in relation to the Golden Rule. Thus, if I act, for

instance, against the Golden Rule I should feel guilty, because I cause a harm that no person should cause to other person, and for the same reason the person affected by my behavior should feel resented. Anybody that observes that such behavior is violating the Golden Rule, would feel indignation, because everybody can judge that no person should do that to any other person. These feelings arise spontaneously in our consciousness and we can rely on them to judge our moral behavior. In some cases, if we are confused about our behavior we can attempt to put ourselves in the impartial position of a person that observe the behavior without being affected by it, or, simply, we can refer to a third person that acts as a judge. If this person considers that the way one person behaves with respect to other person is immoral, then he/she will feel indignation. In other words, if we consider, according to the Golden Rule that nobody should act in such way with respect to any other person, then such behavior is immoral. In this way, we know in our own consciousness when we act in an immoral way, if we have, of course, the capacity to put ourselves in the place of the other persons. Besides, we value the moral behavior because we value being trustworthy. And the people who recognize themselves as a moral persons constitute a moral community, that is to say, a community in which every person respects each other, in an equalitarian way. Therefore, in this moral community it is possible to find the conditions that make possible to solve a controversy, such as the critical discussions rules presuppose.

Some persons could consider that to introduce moral conditions as part of the concept of critical thinking would be exaggerated. Nevertheless, we have showed that some basic moral behavior is an unavoidable ingredient of critical discussion rules, therefore, we have to require this behavior if we expect to solve real controversies. On the other hand, the way in which we introduce moral rules is a very argumentative way, in the sense that we accept that any move could be questioned, and we are ready to explain why we arrive to our conclusions. Besides, we don't introduce any move that could be considered a fallacy, such as an appeal to some authority, the common practice or tradition. We just appeal to our own experience. Of course, I realize that I don't provide reasons to prove a point of view. But, I provide a motivation to act in a moral way, and we can consider that this strategy develops an argument in a general sense. It is not unreasonable, in fact, to talk of moral arguments, even though we cannot infer the basic principles, such as the obligation to keep our promises from a different valid principle. We can just give a justification, to be a trustworthy person, to live



in a society that respects any person, that is to say, only a motivation to act morally.

### 5. *The mediation*

If we accept that a critical person has to develop a basic moral behavior, then, we can make another extension of the concept of critical thinking as to include the capacity to be a mediator. What I have in mind with this term is the capacity to solve conflicts, especially interpersonal conflicts. To be a mediator requires a strong training in argumentative skills and also a strong commitment to some basic moral values. The mediators have become very important in my country because they play a very important role in the process that reinforces the recently approved divorce law. Mediation is a good instrument to prevent a divorce that could be very expensive, and extremely exhausting for the family, especially from a psychological point of view.

The process of mediation is important because the parties in conflict (in general, husbands and wives) can reach an agreement that solves, at least in part, their problems and avoids the difficult situation involved in a trial. The mediator must be able to allow the parties to reach such agreement and in order to that they have to listen to the people, to analyze the arguments of each part, to have the capacity of empathy to understand what the people is going through, and of course, a basic moral behavior to decide which arrangements are acceptable and which are not. For instance, intra familiar violence is a problem difficult to solve and it, obviously, would be an unacceptable arrangements, if it did not to put an end to this behavior. As we can see, argumentative tools, which we can summarize as the ability to detect fallacies (disqualifications), are very important for the mediator, and this is the reason to include this activity as a new instance of the concept of Critical thinking. I cannot say more about this topic, because I don't know it very well and it is just starting in my country. Nevertheless, I realize its importance in education. It is obvious that a good teacher that has to deal with interpersonal conflicts between the students has to develop the typical characteristics of a good mediator. As any educator knows, a good teacher has to face the conflicts, should solve them and, in these cases, has to restrain from using the use of his authority position. Besides, this process of mediation should be socialized with the students, that is to say, it should be a part of the educational process, in order to teach the students how to argue, how to judge a moral situation and also how to solve conflictive situations. For this reason,

mediation is a crucial ingredient in the process of developing a moral community. And the moral community, as we mentioned, is the social space that allows the educator to argue in a rational manner.

I realize, of course, that many people could reject these derivations of the concept of Critical thinking. I would like to defend my position.

The purpose of Conceptual analysis is to provide a legitimate use of a particular concept. For instance, we can apply the concept of democracy to political systems and we can define some specific characteristics by opposition to the traits of a dictatorship system. But, we also can apply the concept of democracy to families, and we can distinguish democratic families from authoritarian families. We can find similarities in both situations, but also we can find some discrepancies. The concepts are flexible, some characteristics are important in some situations, but not in others. Besides, the concepts change. New instances appear to be more important in some moment, but in other cases, different instances reach an important relevance role.

So, we have to choose a specific context that allows us to define a legitimate use of the concept. I defined my purposes at the very beginnings, but the last discussion about the role of argumentation in the process of mediation, made explicit that, at any moment, we may refer to an educational context.

I am trying to provide a definition of critical thinking that can apply to the educational process, and more specifically, a concept of critical thinking that we can apply to the Chilean Educational Reform.

If we revise what I have established so far, we can see then, from this perspective, the consistency of the process. Because, from this perspective, we have to pay close attention to the way in which we teach how to be critical and to the specific instruments and strategies that facilitate this process.

If we think of the rules of critical thinking, we can consider that they are sufficient, maybe, for an adult person. But if we have to teach students, secondary students for instance, we have to make explicit the moral requirements of a good argumentation. Otherwise, it would be very difficult to teach the students the necessity of avoiding the use of fallacies.

If we think, on the other hand, of the requirement to satisfy sufficient conditions,

we can see that the people must have a great deal of knowledge of the context of the topic in discussion. We cannot solve a controversy using only logical mechanisms, we also need some research and, in the case of students, we must develop group research. This is an additional reason for considering argumentation as a collaborative enterprise.

In the definition of critical thinking, the contextual arguments have a main role and the instances that we add are related to the process of teaching the students how to be critical persons.

### *6. The role of imagination*

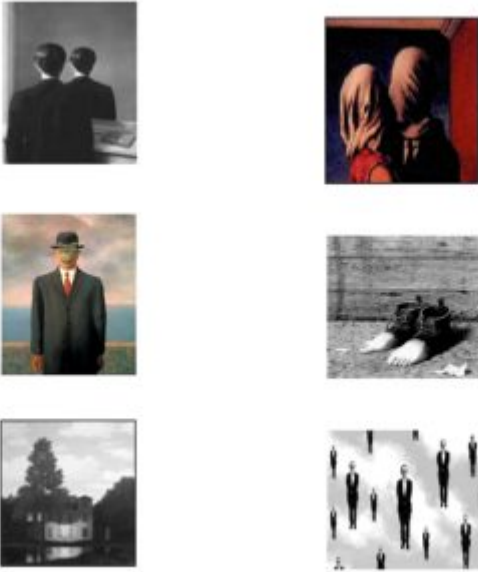
The practice of argumentation shows that we have to think in different contexts and, sometimes, it is necessary to create ideal situations in order to decide if some conclusions follow from some premises. Plato, for instance, in the Republic created the ideal hypothesis of Giges's ring. As we know, this ring has the special power of making the owner invisible to other people. So, if we have such a ring we can never be afraid of the people and, of course, we can avoid the negative consequences of our behavior. The question that Plato is trying to decide is if we have any type of reason to act for the sake of Justice or, we only act with justice because we are afraid of being discovered and being punished. This artificial hypothesis permits to isolate the situation of acting in a moral sense. In real life situations, it is difficult and confusing to reflect about the problem of moral behavior and many people actually support the idea that our behavior is always ruled by the threat of punishment. For this reason, we have to learn to develop these "science fiction" examples in order to be critical of everyday situations.

We could never decide whether an assertion is true or false if we have to refer always to everyday situations that are, very often, difficult to separate from mere prejudices. In order to be critical we need to develop this capacity of being able of to refer to unusual situations. This is very crucial to make clear a point.

Even though I am not going to propose a specific method, I will describe some meaningful exercises. We put the students in situations where they are forced to make comments about some enigmatic stories or tell stories about some ambiguous images or pictures. In some cases we propose a set of pictures and we ask them to compare two different tasks. In one case, the students must develop a narration about the whole set of pictures. In the other case, each student must refer to a single picture and also develop a consistent story with the comments of

the others students.

We can consider the following example:



I don't have the space to explain all the stages that the students followed to fulfill both tasks, so I will explain the final story that the students could develop for this set of pictures. This story is the following:

The first picture of the sequence marks the sense of the story. It is the beginning of the group story and the students will try to continue the story from this point. The first picture refers to the unsuccessful search of a person for finding his self. The next two sequences tell his way out of the opening of this self that wants to know him and to give a sense to his life in different quotidian situations, in the streets, or searching for the old home of his infancy. The concept of returning home marks a direction towards finding his the personal identity, but it is not the only way. Love between two people could be a way out to find himself in other person, but the same picture shows that it is impossible to know each other, and, at the same time, the picture shows that without seeing each other it is impossible to trust in order to hug the other person and to be close to him/her.

Something very import emerges in the penultimate picture, since poetry replaces the difficult step that links it with the last scene. The step from the imperfect romance to misery was, in fact, very difficult, but poetry permitted to build a bridge towards a solitaire and indigent self. It seems that this self is disillusionment of love, of himself and of the poverty of his knowledge. Trough the poetry the disillusionment of love can sublimate the misery and the condition of

being nude. It is for this reason that it shows his bare and weak feet i.e., their weak foundations.

The last picture was interpreted in several ways, for instance, that our personal identity only can be found in the encounter with other people, or that the human beings are open and know them when they realize their different dimensions which, nevertheless constitute a unique person. Or, everything in common with other people verifies in one person and this is the element where it is possible to verify the knowledge of oneself.

### *7. Comments*

We can make some general comments about this activity. It is true that we cannot appreciate the differences between the individual story and the group story. Nevertheless, we can figure out that when a person tells an isolate story he/she makes an effort based on his/her individual experience and creativity.

On the contrary, the group story shows a sum of efforts and very different experiences and different degrees of creativity. Besides, the effort is greater because the story changes in a continuous way because of the intervention of different students that develop the story further. This new situation forces the students to concentrate in two aspects. First, they have to maintain the internal coherence of the story, i.e., they have to follow the way that grants a sense to the story. Second, they have to propose a new step, a creative step, in order to make progress in the development of the story.

In summary, we have developed a concept of critical thinking that can be used in an educational context. Because of our methodology, we realize that we can use different concepts of critical thinking. It depends on the context and, of course, on our purposes. In the present case, through this exercise, we have developed a consistent set of activities that help to develop critical thinking among the students. Argumentation, that is to say, the basic activity of supporting our opinions by reasons, is, of course, the central activity. And we can develop this ability involving the students in controversies, especially by discussion of the public controversies. The other activities such as the reflection on the basis of moral behavior, the necessity of solving interpersonal conflicts and the creation of group stories are activities that reinforce the main activity. Of course, argumentation is the activity that involves and permeates these extensions of the concept. In the last case, for instance, the development of group stories is a

counterbalancing activity that emphasizes coherence, direction in the conversation, collaboration in a common task and the fostering of personal creativity. This is an activity that counterbalances the personal attacks, irrelevant opinions, appeals to prejudices, etc. that can arise in a controversy. So, it is a crucial tool for developing what Lipman (1980, p. 45) called a community of Inquiry, i.e., a privileged community that we build to solve our controversies.

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