

Rationality and its application in the idea of Critical Thinking

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Abstract

This study critically investigates the basic features of the conception of rationality found in the writings of critical thinking theorists and in so doing finds some significant conceptual elements of rationality in the idea of critical thinking that may help extend our views of rationality as an educational concept. The study will primarily be focused, firstly, on the conceptual connections between the ideas of rationality and critical thinking and, secondly, on Harvey Siegel's universalist notion of rationality as the criterion of critical thinking.

Key words: rationality, critical thinking, epistemological universalism, cultural relativism

I. Introduction

Critical thinking is one of the most popular themes among educational theorists spoken in relation to the notion of rationality, especially in the English speaking world. The idea of critical thinking, critical mind, or critical thought has been having an educational importance since ancient Greece, but its most modern form was conceptualized in mid-nineties especially by the educational philosophers in North America. When the modern concept of critical thinking was first introduced it was closely related to most conceptual elements of the traditional idea of rationality, especially its logical dimension, but this characteristic gets more and more attention from different perspectives and today's trend goes to the direction to overcoming the original conception of critical thinking and reconstruct the idea on the basis of expanded views of rationality. The purpose of this study is to review how the notion of rationality is related to that of critical thinking, what aspects of rationality are considered the most important in forming the idea of critical thinking, and how the limits of rationality are reflected in contemporary debates of critical thinking.

While it is a little odd that even those critical thinking theorists who attempt to equalize critical thinking to rational thinking do not directly show how being rational is

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connected to being critical, and while there is variety in degree and in the way that rationality is understood in such connection, it seems obvious enough that rationality is one of the foundational concepts in forming the idea of critical thinking; either it provides the basis upon which the idea of critical thinking is established or it provides the point where critical writers of contemporary trend of critical thinking theory begin their criticism. In my view, the importance of rationality in the debates of critical thinking is in that neither the proponents of rationality in critical thinking nor those who are suspicious of the roles that rationality plays for critical thinking seriously doubt the relationship itself between the two notions. The issue, instead, becomes more and more how rationality can be redefined and reinterpreted so that the idea of critical thinking based upon it does not get biased and narrowed in particular directions.

My concern in this study is basically about how "being rational" is conceptually connected with "being critical." In the following discussions I will investigate the basic features of the relationship between these two conceptions. How is "being critical" conceived in critical thinking theories and what aspects of "being rational" are utilized for the conception? For this, especially the American educational philosopher Harvey Siegel's arguments and his critical reviews of John McPeck's perspectives will be mainly discussed.

II. Being Critical and Being Rational

Burbules and Berk comment that "critical thinking is linked to the idea of rationality itself, and developing rationality is seen as a prime, if not *the* prime, aim of education" (Burbules and Berk, 1999, p. 48). And, according to Walters, "[A]lthough there are a few dissenting opinions...., most educators, psychologists, and philosophers who champion the critical thinking method as a top educational priority do so because they identify it, either implicitly or explicitly, with rational thinking" (Walters, 1994, p. 65). While it needs further investigation how rationality is defined in relation to critical thinking and how the two are related with each other, it seems fairly true that rationality provides substance to the idea of critical thinking. The following discussion is about some basic ideas of how rationality fits into the idea of critical thinking.

No doubt critical thinking aims at becoming critical. Its purpose is to teach students how to be more skeptical toward commonly accepted opinions. The idea of being critical is, however, not a concept newly invented in the 20th century; it has indeed a long history in the tradition of western philosophy. According to Biesta and Stams, the idea of criticality began its life along with philosophy itself (Biesta and Stams, 2001, p. 57). Socrates showed an example of being critical by constantly raising doubt about received opinions of his days and revealing that they were in fact false opinions about what they were assumed to be. For him, being critical is having "real knowledge"-*episteme*-and distinguishing from it mere opinions-*doxa*. The tradition of criticality ever since never stopped being regarded as the main enterprise of philosophy

throughout the western philosophical history and critical thinking theories are no exception. Biesta and Stams understand critical thinking theories developed in the second half of the 20th century in the extension of this long history.

A similar view can be found in Thayer-Bacon. In the beginning chapter of her book, Thayer-Bacon draws an image of a critical thinker by the famous sculpture of Rodin, *The Thinker*, and connects this image to the particular paradigm of thinking that has its root in ancient Greek philosophy (Thayer-Bacon, 2000, p. 17). For her, the contemporary trend of critical thinking continues to image this conventional mode of rational thinking-the mode which originated from the teaching of Plato and Aristotle. Thayer-Bacon's purpose in the discussion is to exhibit what she labels the "male perspectives" of critical thinking started from the ancient Greek epistemological perspective and differentiate it from her own perspective, namely, "constructive thinking as a quilting bee." In her view the male perspective began all the way back from ancient Greece and formed the Euro-western paradigm of rational thought that eventually gave foundation to the current critical thinking theories. What interests me in her discussion is that contemporary critical thinking theories-mostly those that developed in the late 20th century in America-were born within the tradition of rationality that has its complete form in ancient Greek philosophy.

In his 1981 book, John McPeck defines critical thinking as "the appropriate use of *reflective skepticism* within the problem area under consideration"; critical thinking involves a skeptical mode of thinking, yet such a skepticism must be used judiciously. It must be tempered by experience so that it is productive of a more satisfactory solution to, or insight into, the problem at hand. The criterion for distinguishing between "judicious" skepticism and incorrect or frivolous skepticism here must be determined by the norms and standards of the subject area in question. Thus "we may say of someone that he is a critical thinker about X if he has the propensity and skill to engage in X (be it mathematics, politics or mountain climbing) with reflective skepticism" (McPeck, 1981, p. 7). Based on these characteristics, for McPeck, critical thinking is perfectly compatible with rationality although they are not equivalent with each other²⁾.

Concerning the relationship between rationality and critical thinking, McPeck does not expound his view quite clearly, especially compared to Harvey Siegel whom I will deal with later. Although he defines the relationship as critical thinking being a dimension or subset of rationality, one's not being coextensive with the other, he does not clearly explain how it is so. He simply defines rationality as "the intelligent use of all available evidence for the solution of some problem," and continues that critical thinking is

2) To be sure McPeck's concern is not in directly relating critical thinking to rationality or explaining critical thinking on the basis of rationality and this is one of biggest differences that makes McPeck distinct from Harvey Siegel. Siegel's criticism of McPeck on this point will be discussed later. My concern here is not so much on how the two are not equivalent to each other as how they are conceptually connected.

necessary in particular junctures in the process of such activity-when rationality needs to countenance the disregarding of certain types of evidence. However, in my view, the idea of rationality is utilized by McPeck much more comprehensively than this. Regarding the relationship between critical thinking and education, McPeck uses a series of assumptions we have concerning the acquisition of knowledge and, based upon those assumptions, attempts to show that the two are logically connected. It goes as follows: 1) Education entails the acquisition of knowledge; 2) the meaning of having knowledge consists of truly believing what one knows and in order to truly believe what one knows one must be able to justify the belief; 3) for any justification of knowledge to be possible it is required "to suspend a given belief long enough to assess the internal coherence of the evidence for it and to integrate the belief within one's existing belief system" (p. 37); 4) to say that one makes a temporary suspension of judgment is simply another way of saying that one must be self-critical or possess a critical mind with respect to the belief system under consideration; 5) therefore, "the integration and internalization of beliefs and evidence require critical thinking" (p. 37). What all of this shows is that the idea of rationality is a necessary element to consider in the process of acquiring knowledge and it functions as a conceptual link to connect the two notions-critical thinking and education-in a logical way. Without rationality it would be impossible to think of any process of justifying a belief with relevant evidences.

Regarding the relationship defined by McPeck between critical thinking and rationality, that is, the former being a particular aspect or subset of the latter, Harvey Siegel argues that such a distinction is untenable. In Siegel's view, McPeck limits the domain of critical thinking to those instances where the determination of relevant evidence is problematic, while rationality includes within its domain all instances of the intelligent use of evidence in the solution of problems. In McPeck, argues Siegel, "critical thinking is a particular sort of rational thinking which takes place in a particular sort of problem-solving context" (Siegel, 1988, p. 29). This particular sort of problem solving context is the group of cases in which reasons and evidences are in some way found problematic and thus reasoning about the problematic nature of the reasons or evidences in question is needed. Siegel says that, however, this restriction put on critical thinking by McPeck is incompatible with his own articulation of "epistemological approach" to critical thinking, according to which critical thinking involves the skill and disposition to seek out, understand, and base belief and action upon good reasons (p. 29)². If McPeck is to keep consistency with his own articulation of epistemological approach to critical thinking he should view critical thinking as equivalent to rationality, not as a particular juncture of it. "In so far as rationality consists of believing and acting on the basis of good reasons, and in so far as we accept McPeck's epistemological approach...we must perforce regard critical thinking not as a dimension of rationality,

2) Indeed, although his use of "epistemology" is quite different from Siegel's use, McPeck connects it to "the rational assessment of statements and arguments" defining it as "the analysis of good reasons for various beliefs" (McPeck, 1981, pp. 22-5).

but as its equivalent or educational cognate" (p. 30).

In Siegel's view, critical thinking is the same mental and psychological activity as rational thinking. A critical thinker is defined by Siegel as one who is appropriately moved by reasons and he argues that this characterization can be used as that of a rational thinker without any modifications.

There is then a deep conceptual connection, by way of the notion of reasons, between critical thinkers and rational persons. Critical thinking is best conceived, consequently, as the *educational cognate* of rationality: critical thinking involves bringing to bear all matters relevant to the rationality of belief and action; and education aimed at the promulgation of critical thinking is nothing less than education aimed at the fostering of rationality and the development of rational persons. (Siegel, 1988, p. 32)

A rational thinker or critical thinker characterized by Siegel is described as follows: 1) A rational or critical thinker is one who appreciates and accepts the importance, and convicting force, of reasons; 2) when assessing claims, making judgments, evaluating procedures, or contemplating alternative actions, the rational/critical thinker seeks reasons and bases her assessments, judgments, and actions on those reasons; 3) when seeking reasons, the rational/critical thinker recognizes and commits herself to principles, for principles determine the relevance and strength of reasons and thereby make the rational/critical thinker's action impartial, consistent, and non-arbitrary.

It seems to me that the idea of rationality Siegel conceptualizes for critical thinking here can be located in the context of Israel Scheffler's ideas on rationality. Scheffler starts his book, *Reason and Teaching*, by unfolding his beliefs on the importance of two propositions regarding education. One is his conviction that "critical thought" is of the first importance in the conception and organization of educational activities; the other is that the ideal of rationality is a unifying perspective in the conception (Scheffler, 1983, p. 1). The relationship between critical thoughts and rationality remains very tight throughout his book. It works as the foundation of his philosophical narrative on education. Although Scheffler's definition of rationality on the basis of the conception of critical thoughts is not as formally structured and detailed as Siegel's, it is constructed based upon a set of very strong arguments.

A first characteristic of the ideal of rationality is that rationality is a much broader concept than intelligence; it goes far beyond the notion of academic mastery of factual subject matter. This is because rationality involves "the capacity to grasp principles and purposes and to evaluate them critically in the light of reasons"; rationality is "the ability to participate in critical and open evaluation of rules and principles in any area of life" (Scheffler, 1983, p. 62). Second, rationality does not belong to a special faculty of the mind called *Reason*, nor is it to be identified with some restricted set of rules for making logical deductions. Also there is no reason that rationality should be opposed to

"experience" or "emotions." Rather it should be understood as a matter of reasons and therefore educating rationality is to make as pervasive as possible the free and critical quest for reasons in all realms of study (p. 62). Third, the concept of rationality always implies consistency and this is because rationality is a matter of abiding by general rules or principles; the concepts of *principles*, *reasons*, and *consistency* go together and define a general concept of rationality. In short, the concept of rationality refers to "the autonomy of the student's judgment, her right to seek reasons in support of claims upon her credibilities and loyalties, and her correlative obligation to deal with such reasons in a principled manner" (p. 78).

The basic reason that I am concerned about critical thinking in this study is because of the strong bond between rationality and critical thinking. In my view, Siegel is the most prominent figure who proposes and defends this bond and this is why the following discussions will mostly consist of those about Siegel's arguments on critical thinking. In the following pages I will discuss what I regard as some of the most controversial issues in Siegel's conceptions of critical thinking and rationality-the universalistic argument Siegel proposes concerning critical thinking and his rejection of relativism, especially in comparison with McPeck's "subject-specific" view.

III. Rationality of Critical Thinking as Universal Standard

Harvey Siegel identifies critical thinking with rational thinking. To act critically is to act rationally. And to act rationally is to act by reasons. One of the meanings of being rational is that one needs to know what she is doing and why she is doing it. The meaning of being rational, that is, doing something by reasons includes that one can provide reasons for what she does. This procedure usually consists of connecting one's action with standards. The typical mode of 'providing reasons'-justifying-is 'because it goes with such and such standards.' To be rational I must be aware of what I am doing and be able to provide reasons for it. To be rational I must be able to justify my actions.

The standards that are applied to judge one's actions, when they are seen from the perspective of the actor herself, become standards by which the actor justifies her actions. In Siegel, these standards are the principles to which the actor commits herself to justify her actions. To be rational is to have a set of principles by which one justifies her actions. To be rational means to keep consistency in finding reasons by having recourse to a set of principles whose conceptual elements are logically connected internally.

Siegel argues that there can be principles that are established regardless of the content of the subject areas considered. Subject-neutral principles are those principles typically regarded as "logical," both informal and formal, that is, those principles regarding proper inductive inference, avoiding fallacies, proper deductive inference. For Siegel, finding good reasons does not differ no matter what subject areas are considered. Different

kinds of reasons can be assessed to be good in different subject areas-because the subjects are different from each other-but *why those reasons are chosen to be good* in each area is not different across different fields. This is because, according to Siegel, epistemology that makes us choose good reasons is a unitary epistemology beyond the bounds of those different fields.

This point is the key to approaching Siegel's idea of universalism. Siegel says that "critical judgment... presupposes a recognition of the binding force of standards, taken to be universal and objective in accordance with which judgments are to be made"(Siegel, 1988, p. 34) In other words, the existence of universal standards is a logical presupposition for critical thinking to be possible. We cannot think critically, that is, act rationally, unless we have universal standards. These universal standards are applied no matter what we do, where we are, and when we live as long as we try to be rational. This is because rationality is based on the same epistemology. No matter what subject areas we are involved in, the principle which makes us determine good reasons is the same principle.

Siegel's universal epistemology argument thus disagrees with John McPeck's argument that reasons and principles of reason assessment vary from field to field. According to McPeck, a critical thinker is always a critical thinker about a particular subject area and thus there is no reason to believe that a person who thinks critically in one area will be able to do so in another (McPeck, 1981, p. 7; McPeck, 1994, p. 102). In McPeck's framework, the term "epistemological" refers to the analysis of "good reasons" for various beliefs, and the concept of "good reasons" and the standards by which to decide them can be different from field to field. The definition of "epistemology," therefore, also depends upon the field under consideration.

Just as there are different kinds of knowledge, so there are different kinds of reasons, evidence and modes of justifying them. What might be a good reason for one kind of belief could be an extremely bad *type* of reason to support another kind of belief...We should notice...that a minimal condition for understanding a good reason in any field is that one understands the full meaning of the specialized and often technical language in which such reasons are expressed. That is, an understanding of the semantic content of a field-dependent proposition is a prerequisite for its assessment. (McPeck, 1981, p. 23)

So, what is important is not the logical (or syntactic) relations between propositions but the meanings (or semantic content) of statements. Epistemology, accordingly, also must put more importance on the assessment of such semantic dimension of statements and arguments.

Yet, in Siegel's view, McPeck's arguments are unacceptable because they result from a misunderstanding of the nature of "reasons" and "epistemology." For Siegel, "even if it were true that differences in criteria of reason assessment varied systematically across

fields it would be a mistake to regard such a fact as establishing...that different fields have *their own epistemologies*." (Siegel, 1997, p. 31) It only tells us that different sorts of claims require different sorts of evidence for their establishment and even in this case the differences do not systematically vary across fields. The only difference is that different fields need different sorts of evidence, not that they need different epistemologies.

It is important to remember that a critical thinker is a principled thinker in the sense that the reasons on which critical thinking is based must be assessed by the principles that govern the reasons. One of the points exposed in Siegel's criticism of McPeck is that there are two kinds in such principles—one subject-specific and the other subject-neutral. Subject-specific principles are those principles that apply only to specific subjects or areas of inquiry—for example, "principles governing the proper interpretation of bubble chamber photographs in particle physics, or those governing proper assessment of works of art, or novels, or historical documents, or the design of bathroom plumbing fixtures" (Siegel, 1988, p. 35). On the other hand, subject-neutral principles are usually those principles that are regarded as "logical," both formal and informal. Siegel remarks that there is no *a priori* reason for regarding which of these two is more basic or fundamental to critical thinking than the other.

One of the characteristics of Siegel's universalistic argument is that he strongly rejects relativism³). In other words, the notion of rationality in Siegel's framework reflects absolutism and this results from his conception of universal epistemology. According to him, "the goodness of reasons... does not vary across persons, times, cultures, and so on, but rather depends only on relevant criteria of reason assessment and the evidence for those beliefs at hand" (Siegel, 1997, p. 34). Siegel's point in rejecting relativism is that relativism logically contradicts the idea of critical thinking. If it is to be possible at all to criticize something one must reject relativism, for relativism does not admit common standards. If we are to be able to evaluate somebody else's arguments we must accept the existence of a common set of standards; if there is no such common standards it would be pointless to say that an argument is badly reasoned or well reasoned. And this point is especially important in educational practices, because in education it should be supposed that teachers have better ability at good reasoning than students do, so that they can show the students better quality of their reason assessment.

Siegel shows how relativism gets caught in a self-defeating situation by an illustration where a relativistic argument results in self-contradiction. Person *P* submits a "relativistic" thesis: "There is no right or wrong concerning the constitution of good reasons. Such judgments are just opinions; probative force is the eye of the reasoner." In response to this, one can ask: "What about your own argument that you just submitted?"

3) As I will argue later, Siegel's view regarding relativism in this context is rather unclear. In my view, relativistic attitude need not be opposed to universalist arguments found in Siegel's conception of critical thinking. I will discuss this point on the basis of F. Allan Hanson's view of cultural relativism.

Is it right or wrong?" Now, *P*'s answer, either "It is right" or "It is wrong," would deny *P*'s argument itself. If *P* answers "It is wrong" it is obvious that *P* denies his own argument by this negative answer; *P* answers that his argument is "wrong." If *P* answers "It is right" *P* denies by his own utterance the argument he just made, for *P*'s answer "It is right" itself denies his previous statement that "There is no right or wrong."

However, it seems to me that Siegel's criticism here concerning relativism can mislead our understanding of relativism. In his discussion of relativism Siegel conceives relativism as if it denied any forms of standards, yet in my view relativism need not be understood in such a way. As one can see in the illustration quoted above, for Siegel, relativism is such that says, "There is no right or wrong concerning the constitution of good reasoning." But one might reject Siegel's argument here and say that such statement is not so much a relativistic statement as an absolutist one. If it is to be a relativistic statement it should be something like: "There are so many types of right or wrong concerning the constitution of good reasoning. This is because the standards of right or wrong can vary in different times, in different places, in different peoples, and in different subject areas." Relativism is not something that denies any kinds of standards of judgment; it is rather the attempt to understand those various types of judgment *inside the context where the judgments occur*.

It is true that relativism concerns human judgments. But human judgments as an object of relativistic concern must be distinguished from judgments that one, as a subject of the judgments, makes. Judgments that I make and judgments about which I am concerned about from a relativistic perspective are different things. Of course it is not impossible for me to make judgments by the standards that I am concerned about in my relativistic research. This is indeed a necessary process for me to fully understand the way the people that I am concerned about make their judgments. However, insofar as the standards that I am trying to understand are different ones from the standards that I have when I make my judgments, the judgments I make by other people's standards are not mine. Making a judgment is always making a judgment by standards, and one's standards are what one has in one's own mind for one's own judgments. Thus, understanding how other people make judgments is one thing and making judgments about how they make those judgments is another. One can fully understand how other people judge and yet he can still *disagree* with their judgments. Such an attitude does not conflict with relativism at all.

It is true that relativism does not admit the existence of standards (of truth, beauty, goodness, humor, and so on) which are valid for all men at all times and all places. And such a view does indeed seem to be incompatible with Siegel's view that the goodness of reason is determined by the same standards, at all times and all places. The crucial point here is how to resolve this seemingly incompatible relationship between the two theses. Is Siegel's universalism concerning the goodness of reason really incompatible with relativistic idea? How to resolve this seemingly incompatible

relation between the two theses depends upon how we reinterpret relativism and how we clarify Siegel's universalistic conception of rationality in relation with the reinterpreted idea of relativism.

One of the contexts where Siegel worries about the rise of relativism is when one confronts conflicts between incompatible claims within the same subject areas. For example,

Galileo claimed that telescopic observation provided good reason for believing that the Jovian moons existed, while...his opponents thought that Scripture and Aristotle provided reason for thinking that the moons did not exist. ... Galileo and his opponents disagreed about what counted as good reason for/against the existence of the moons. (Siegel, 1997, p. 20)

Siegel says that such a situation gives rise to the possibility of relativistic argument because it suggests that what counts as good reason is relative to persons, frameworks or perspectives. In this particular case, telescopic observation provided good reason for Galileo to argue *for* the existence of the moon while the writings of Aristotle provided good reason for his opponents to argue *against* it. "[A] candidate reason's status as a good reason depends on who is doing the judging"(Siegel, 1997, p. 19). Siegel does not go further and more deeply expose the relation between Galileo and his opponents and how the possible relativism found in this case can be resolved. Instead, he says that there are cases, like this debate, where "it is genuinely difficult to evaluate the strength of reasons and the appropriateness of particular criteria of reason - assessment" (Siegel, 1997, p. 20).

A more provocative argument in Siegel regarding relativism can be found in his discussion of multiculturalism. Siegel argues that multicultural perspective in education is often conjoined with a related epistemological perspective that "different cultures endorse their own epistemologies, e.g. their own conceptions of truth and views of the nature or criteria of epistemic justification; that the obligation to respect cultural differences extends to respecting those alternative epistemologies as well" (Siegel, 1997, p. 142). What Siegel attempts to argue here is that, quite similarly to his other arguments, the multicultural perspective requires the traditional conceptions of knowledge for itself to be successfully established.

However, Siegel is not so clear when he says that multiculturalism is conjoined with the view that "knowledge is culturally determined and/or relative." He does not clearly distinguish here between the thesis that knowledge is culturally determined and the thesis that different cultures have different epistemologies. To go back to my earlier discussion on the distinction between the subject-neutral and the subject-specific, although subject matters are different in different areas, this does not mean that they have different epistemologies. Siegel says about the multiculturalist view of knowledge as if it assumes the existence of different epistemologies and thus assumes that different

cultures have their own epistemologies that are different from others, but it is quite questionable that the multiculturalist thesis-"knowledge is culturally determined"-necessarily means that different cultures have their own and thus different epistemologies. If we accept the distinction between the subject-neutral and the subject-specific we also have to be able to say that different bodies of culturally determined knowledge does not necessarily mean different epistemologies; the difference is only in what they choose as good reasons; the epistemology that make them choose different reasons as good reasons is the same across different cultures.

F. Allan Hanson's example could be helpful to clarify this point.

One day during my fieldwork on the French Polynesian island of Rapa I was helping a few men with the heavy job of turning the soil to prepare a taro garden for cultivation. The sun was hot and we were perspiring freely. I picked up a jug of cool water I had brought and asked my comrades if they wanted a drink. They said no. When I then took a drink myself, they looked concerned and one of them told me I should not do that lest I get sick. (Hanson, 1975, p. 3)

There are two sets of reasoning process in this example. One is that of Hanson himself which is based on the Western medical knowledge system and the other that of Rapans which is based on their indigenous medical knowledge system. The former tells us that we should drink water when our body temperature is high to provide additional moisture and keep the moisture level inside the body balanced. It is one set of reasoning that relates a premise with a conclusion according to the rule of rationality; we drink water when we sweat in order to rehydrate our body. Is the other one, the refusal of Rapans to drink cold water when hot and perspiring, based on a different epistemology? Although its conclusion is completely opposite to the former, we should say that it resulted from exactly the same process of reasoning and thus exactly the same epistemology. Just as the former followed the system of Western medical knowledge, the latter is a logical inference from the Rapan system of ideas relating health to body temperature. The Rapans do not drink cold water when they are hot and perspiring because they believe drinking cold water when the body is hot and perspiring can adversely affect bodily temperature and hence endanger health. Because the two sets of reasoning are based on the same epistemology, they are both rational. Although the two reasons-rehydrating and keeping the balance of body temperature-result in two contrary conclusions, they are both good reasons, because they both follow the logical rules of the two belief systems well.

This example of the Rapan belief system vs. the belief system of the author, Hanson, himself is very similar to Siegel's illustration of the debate between Galileo vs. his opponents. Although Siegel does not show a prospective resolution in the case, I think it is not impossible. And this issue is also related to the question that I submitted in my

earlier discussion on how to resolve the conflict between relativism and Siegel's universal thesis of rationality. To say the conclusion first, epistemological relativism is not inconsistent with Siegel's universalism. On the contrary, relativism is a necessary attitude to get Siegel's universalism to be established successfully. It is true that relativism does not admit the existence of universal standards of judgment, but it should be noted that this is only a part of relativism. What it denies is not the possibility of rational criterion that can be applied across different cultures, but rather the attempt to put superiority on particular belief systems over others, the existence of hierarchy between substantially different belief systems.

The primary thesis of relativism is that different cultures, their belief systems should be understood in their own terms and I think this is not incompatible with Siegel's universalistic conception of rationality. On the one hand, if relativism is to be possible it must not be denied that we can understand other cultures, that is, we share the same epistemology, the same principle of reasoning with other cultures. If it were impossible to understand the elements of different cultures, then relativism would be impossible, for relativism presupposes our ability to understand other cultures on the basis of rationality that we share with those other cultures. On the other hand and more importantly, Siegel's universalism can be supplemented by the relativistic point of view. In my view, Siegel's universalism is far short of resolving the conflicts among different kinds of rational arguments. Although it provides a formal concept of rationality and thereby provides the possibility to understand different belief systems, it is unable to go beyond this because it provides no source of resolution when different "subject-specific" or "context-dependent" rationalities conflict with each other. Its universalistic ideal does not conflict with particularism, but it can hardly do anything when particular belief systems collide with each other. How they can be resolved would need another piece of inquiry.

IV. Concluding Remarks

What I originally had in mind when I began this study is to find some significant ways to reconsider the notion of rationality from the perspectives reflected on the debates of critical thinking theorists, and thereby help get more comprehensive conceptions of rationality on the basis of such reconsideration. It is rather perplexing, however, to find that, at any rate, such an intention has finally turned out to be not that successful in this particular piece of study, although I believe that my views on the notion of rationality itself have been quite sufficiently exposed. One of the reasons for this result, especially when the attempt is mainly based on the literary reviews achieved in North America, is that the development of critical thinking and the debates concerning the concept began from Robert Ennis's initial construction of the concept in 1960's and discussions that followed Ennis's work have been basically performed within the tradition of analytic philosophy. What I want to do in the following is to rephrase some

implications of the points explored in the study in a way that would wrap up my basic views on the perspectives of critical thinking theorists regarding rationality.

A first point I want to note is one regarding the nature of the relationship between rationality and "being critical." Today it is quite common to think that critical thinking is inherently, or conceptually, related to rationality. Yet, in my view, it is still open to question whether this is really so. My view is that although "being critical" is often defined as a way of acting or a characteristic of behavior, this does not mean that it is a name of a certain substantial rule of thinking and acting in the way that rationality is. It might be true that the definition of rationality can also change, yet rationality denotes a specific way of thinking and acting that is defined in an absolute term. The way that "being critical" obtains its meaning is quite different from this; the meaning of "being critical" is established *relatively*. It is not logically impossible to be both rational and uncritical at the same time—for instance, if everything around me is running rationally why would I have to be critical even though I am fully rational? It is true that practically, in most cases, rationality assumes criticality, because a rational person—if we may call a person "rational"—sees things by the standard of her rationality and this means that she sees things critically. As a matter of fact, if we adopt the meaning of "being critical" in this way, any standards of thinking can be connected to "being critical"; anybody who has a particular criterion of looking at things in a more or less consistent manner cannot avoid being critical; a conservative person can be critical because to this person everything radical will be the object of his criticism.

In my view, a significant amount of debates regarding critical thinking, especially about the issue of redefining the concept of "critical thinking," is a result of this ambivalent nature of the relationship between "being critical" and rationality. Instead of initiating their attempt with an essential work of conceptualizing the notion of "being critical" or criticality, critical thinking theories were started with locating its meaning broadly in the conception of rationality, even though it calls itself "critical thinking." This initial attempt has been continuously evoking questions of how well the notion of rationality represents the idea of criticality. This discrepancy can be clearly noticed especially when we see John McPeck's work. In a sense it is quite natural to writers such as McPeck who try to begin their elaboration from conceptualizing *critical* thinking itself that rationality would not feature as significantly as in the approach that Harvey Siegel takes. To put it in a nutshell, controversies such as that between McPeck and Siegel are those concerning in what way critical thinking can fit in with "being critical"; McPeck attempts to start from "being critical" while Siegel starts from rationality.

Another point to note is the idea of universalism found in Siegel's viewpoint. The idea of universalism in Siegel is based on his view of "universal epistemology"; even though there are many different subject areas, the ways that we find good reasons are identical across those different subject areas. However, I do not agree with Siegel's view that such a universalist characterization of rationality is necessarily opposed to relativism. In my view, as I discussed from the perspective of F. Allan Hanson's cultural relativism,

universalism need not conflict with relativism; on the contrary, if we are to consistently work with universalistic idea of rationality we need to keep relativistic standpoint; otherwise we cannot see different cultures as being rational as our own. Relativism is not, as Siegel views, something that denies any right or wrong concerning the constitution of good reasons; it should be rather regarded as a way to keep balance between different views without making any particular view dominate others.

It is rather ironical that rationality has been recently being regarded as something to avoid in the camps of some of philosophers of education, especially when we recall that it is one of the oldest ideals in history that humans tried to accomplish by their educational efforts. Yet, some of critical theorists still attempt to recognize its meanings as an educational conception and reinstate its power of emancipating human mind out of false opinions and various types of ideological distortions. In my view, the importance of the idea of critical thinking is in that it locates such theoretical attempt within the context of critical efforts and thereby gives another opportunity for our philosophical attention to converge on the issue of rationality and the unfinished project of the modernist ideal.

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