Reflectivity in Research Practice: An Overview of Different Perspectives

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Abstract
The article grounds on the assumption that researchers, in order to be not mere technicians but competent practitioners of research, should be able to reflect in a deep way. That means they should reflect not only on the practical acts of research but also on the mental experience which constructs the meaning about practice. Reflection is a very important mental activity, both in private and professional life. Learning the practice of reflection is fundamental because it allows people to engage into a thoughtful relationship with the world-life and thus gain an awake stance about one’s lived experience. Reflection is a crucial cognitive practice in the research field. Reflexivity is largely practiced in qualitative research, where it is used to legitimate and validate research procedures. This study introduces different perspectives of analysis by focusing the discourse on the main philosophical approaches to reflection: pragmatistic, critical, hermeneutic, and finally phenomenological. The thesis of this study is that the phenomenological theory makes possible to analyze in depth the reflective activity and just by that to support an adequate process of training of the researcher.

Keywords
reflectivity, research practice, phenomenological perspective

The Value of Reflection
Reflection is a very important mental activity, both in private and professional life. This study assumes that reflection is “a turning back onto a self” where the inquirer is at once an observed and an active observer (Steier, 1995, p. 163). Reflection aims at understanding the forms of intelligibility by which the world is made meaningful; in the heuristic context of the research work, reflecting means to elucidate the epistemic acts developed in the midst of inquiry process. When the mind thinks on itself, the subject engaged in the reflective practice plays at the same time the role of subject who reflects and object who is reflected, that is, he or she becomes the object of the analysis, and it is precisely through making oneself the object of self-inquiry that a person really becomes the subject of his or her experience.

Learning the practice of reflection is fundamental because it allows people to engage into a thoughtful relationship with the world-life and thus gain an awake stance about one’s lived experience. A person can live in an unauthentic or in an authentic way: the unauthentic experience happens when the person adopts an unreflective stance that consists in staying passively enmeshed in one’s thoughts and the authentic condition happens when the person develops a mindful stance on his or her mental life. Socrates (Plato, Apology of Socrates, 38a) affirms that a life devoid of reflective thinking is not a fully human life, and on this basis he conceives education as a process aimed at cultivating the habit of reflection, in order to be capable of an in-depth interrogation into the webs of thoughts wherein life is immersed.

Reflection is a crucial cognitive practice in the research field (Dahlberg, Drew, & Nyström, 2002; Steier, 1995). Starting from the “interpretive turn,” reflexivity is largely practiced in qualitative research, where it is used to legitimate and validate research procedures. Today, the authoritativeness of reflexivity is practiced in a wide range of research schools: critical, feminist, race-based, and poststructural approaches (Pillow, 2003, p. 176). Reflexivity, invoked in almost every qualitative research work, is conceived of as a practice that a
There is no possibility of an objective science, means science, a discourse to become (t o b e c o m e)

The reflective practice is essential in research, since it aims at raising a thoughtful eye on the whole process of inquiry, then in order to make the heuristic process accountable and valid, the researcher has the ethical task of making transparent the ways of reasoning that are carried out through the research act. Since the observer does not merely reflect the phenomenon, but he or she shapes it, then he or she is responsible of each inquiry act; consequently, “ethics must become a part of research” (Steier, 1995, p. 3). In order to face this ethical request, it is necessary for the researcher to practice reflection on the whole inquiry work. In other words, if the mental experience of the researcher conditions the research, since it brings into the heuristic process the subjective gaze, then he or she should assume a self-reflective stance through which gaining awareness of how his or her personal framework tacitly condition the research process. The reflective practice is essential in research, since it aims at raising a thoughtful eye on oneself, which allows the subject to gain self-awareness (Dahlberg et al., 2002, p. 139). To be reflective researchers means to become conscious of what already structures the mental life and to analyze how these underlying cognitive artifacts mold the process of inquiry.

Reflexivity is conceived important also at the aim of improving an ethical stance toward research, because only the disposition to radically reflect on experience, while it flows, allows the researcher to identify unexpected critical situations and to deal with these in an appropriate ethical way (Guillemin & Gillam, 2004). McGraw, Zvnkovic, and Walker (2000), in order to pinpoint the connection between reflectivity and ethics, affirm that reflectivity is “a process whereby researchers place themselves and their practices under scrutiny, acknowledging the ethical dilemmas that permeate the research process” (p. 68). If guarantying the ethic of research is not a merely regulatory activity, which implies only to apply rules and codes, but it requires the researcher shapes oneself as an ethical instrument, then the reflective practice is the first and main ethical imperative, because an ethical self-forming activity implies reflectivity (Cannella & Lincoln, 2007).

However, some scholars consider the “reflexivity talk” as a self-indulgent and narcissistic process, a kind of “vanity methodology,” wherein academic people consume energies and time. Daphne Patai questions the value of reflexivity by raising doubts about its capacity to produce better research (1994, p. 69). But what is a “better research”? In postmodern times, it is a research wherein the researcher interrogates himself or herself in order to understand how he or she thinks and how he or she affects the data collection and the data analysis. From the Socratic point of view (Plato, First Alcibiades) to become aware of what we do and of what we think to do is always a value.; on this assumption, I think that a more aware research, which provides insight into the way knowledge is produced, is a better research. To become mindful on one’s own practice gives value to any kind of inquiry.

The problem is that the natural tendency of the mind is unreflective. Most of cognitive life happens without us being aware of it, and this condition is problematic, because from the constructivist viewpoint the products of the mind (opinions, beliefs, theories, . . .) have a performative power on the life-world, in the sense that they imply the basic criteria by which we decide what to do and what not to do. Thus, remaining in an unreflective condition as regard the life of the mind means to put oneself into the condition of being possessed by one’s own thoughts. If reflection plays a crucial role in the field of research and if reflection is not a natural ability which sprouts spontaneously but has instead to be enhanced by education, then it is significant to investigate what conception of reflection can frame the formative training of the researcher so that he or she gains an aware and ethical stance on the inquiry practice.

To deal with this question, the text is structured in two parts. The first introduces the findings of a literature review which, without pretension to be exhaustive as regard the main traditions of thought on reflection, focuses on some fundamental theories. This review shows that, although reflexivity has been given different interpretations, it still lacks a conception that is not limited to a definition of “what reflexivity is” and “what aims it can pursue,” but analyzes in depth what cognitive acts reveal a rigorous reflective activity. Only a detailed conception can be useful to work out a valid heuristic training for the

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1 Generally, constructivism and constructionism are defined as epistemologies, but from an etymological perspective it is correct to speak of “gnoseologies.” Indeed, the word “gnoseology, which comes from the Greek γνωσεις and λογος, indicates a discourse that tells “what knowledge is”; and while realism claims that it corresponds exactly to the world, constructivism maintains that knowledge is a construction of the world. On the other hand, epistemology, from the Greek επιστεμη and λογος, states “how knowledge should happen” in order to be valid and rigorous; indeed, επιστεμη means science, a discourse “placed (στεμη) above (επι)”, in the sense that it is well grounded.
Perspectives on Reflection

Ever since the 1980s, the term “reflection” has increasingly appeared in the pedagogical debate and has been considered a central tool in experience-based learning (Boud, Keogh, & Walker, 2000). Reflection is fostered both in school learning and in adult education (Mezirow, 1990).

A relevant part of the educational literature portrays reflection as a wholly beneficial practice for practitioners (Gould & Taylor, 1996; Johns & Freshwater, 1998; Mayes, 2001; Smith, 1992) and also for researchers (Dahlberg et al., 2002). In the nursing field, in particular, reflection is largely practiced and deeply examined (Benner, 1984). Moreover, reflection is encouraged in teacher education. Specifically, in teacher education there are “how-to” manuals that explain strategies for turning young researchers into reflective practitioners (Black, 2001; Loughran, 1996), and in some case a specific kind of reflective training is proposed, such as critical reflection (Brookfield, 1995).

We can find also studies that present and discuss the tools and strategies that can be carried out to increase reflection. After defining what it means to become critically reflective, Brookfield (1995) introduces some techniques for improving reflective learning, in particular, he examines the value of writing autobiography, inquiring into critical incidents, and conversing with others to analyze problems collaboratively. Mezirow (1990), after explaining the use of techniques such as composing education biographies, journal writing, and performing the action/reason-thematic procedure, takes into account some reflective strategies such as the feminist “consciousness raising” and the “therapeutic learning program,” in the perspective of an emancipatory concept of training. Pallascio and Lafourtune (2000) debate the relation between reflection and critical-creative thinking; moreover they investigate what kinds of experience can be developed in order to promote reflectivity in teacher education. Zeichner and Liston (1996), by noticing how little has been done in order to make the reflection an effective strategy for teacher development and by criticizing the restrictive ways in which reflection is often implemented in teacher education (1996, 74), describe distinct orientations about reflection, which they call “traditions of reflective teaching”: “generic tradition,” which simply emphasizes thinking about what we are doing without attention to the quality of thinking; “academic tradition,” which stresses reflection on subject matter with a view to promoting student understanding; “social efficiency tradition,” which encourages young researchers to apply teaching strategies suggested by educational research; “developmentalist tradition,” which considers reflecting on students to determine what they should be taught and, lastly, “socialreconstructionist tradition,” which stresses reflection about the social and political context of schooling (1996, pp. 51–62).

Reflection is a complex concept subject to many interpretations with subtle variations (Dahlberg et al., 2002, 139). From the analysis of this literature, it results that the term reflection is an umbrella that has been used to embrace a wide range of concepts and strategies. When we encounter this term, we find different meanings, and the arguments for supporting reflection are “so widespread and divergent that they often contradict each other” (Fender, 2003, 17). There are many ways of dealing with the task of clarifying the reflection issue. For example, Fender (2003) chooses to historicize the term, by tracing the construction of reflection from Descartes to Dewey and Schön. Her assumption is that “historicizing the term helps untangle the confusing morass of meanings” (2003, 17). Moreover, she assumes the Foucaultian lens of genealogical analysis. Thus, rather than trying to clarify the meaning of reflection, Fender emphasizes the historical and discursive complexity of the concept.

Hatton and Smith (1995) analyze the reflection topic starting from some questions. The first is whether reflection is inextricably bound up in action, the second is concerned with the time frames within which reflection develops and asks whether it is an immediate and brief process or a more extended and systematic one, the third deals with whether reflection is a problem-oriented process or not, while the fourth is concerned with a critical interpretation.

This study introduces another perspective of analysis by focusing the discourse on the main philosophical approaches to reflection: pragmatistic (Dewey), critical (Foucault), hermeneutic (Van Manen), and finally phenomenological (Husserl). The thesis of this study is that the phenomenological theory makes possible to analyze in depth the reflective activity and just by that to support an adequate process of training of the researcher.

The Pragmatist Perspective

The pragmatist approach to reflection conceives it as an experience for increasing the action’s effectiveness. In How to Think, Dewey defines reflective thought as an:

Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it leads ... it includes a conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality (1933, p. 9).

Thus, reflection is conceived as having as its object the thoughts, which weave the cognitive life.

In Dewey, the conception of reflection is action oriented. Indeed, in his view, reflective thinking is useful because it “converts merely appetitive, blind, and impulsive action into
intelligent action” (1933, p. 17). In other words, reflective thinking gives increased power of control over experience. Having a method of thinking extends our practical control on experience, and it is through reflection that we can carry out an intelligent method of inquiry.

In Democracy and Education, he establishes a relationship between “learning from experience” and reflection: if learning from experience means being capable of making “a backward and forward connection between what we do to things and what we enjoy or suffer from things as a consequence” (Dewey, 1916, p. 140), then reflective thinking is the mental activity that makes these connections. It is not possible to gain meaning from experience “without some element of thought” (Dewey, 1916, p. 145). Starting from this assumption, Dewey compares two kinds of experience on the basis of the level of reflection they imply: when we act according to a “trial and error” criterion, we have an “unreflective experience,” while when we deliberately cultivate a kind of thinking aimed at discovering the connections between our actions and their consequences, we have a “reflective experience” (Dewey, 1916, p. 145). Thus, in a Deweyan perspective, reflection is aimed at understanding experience in order to gain control over it.

At the root of this pragmatistic conception of reflection, there is an assumption according to which “thinking occurs when things are uncertain or doubtful or problematic” (Dewey, 1916, p. 148). Dewey states that the general features of a reflective experience are: (i) perceiving perplexity, confusion, doubt, (ii) making a conjectural anticipation, (iii) developing a careful survey of the situation, (iv) formulating a consequent elaboration of a tentative hypothesis, and (v) making a plan of action. This pragmatistic view, which directs reflection to the solution of a concrete problem, infuses the main part of the debate on reflection and orients the majority of educative experience on this topic, both in school and in adult education.

Of particular interest is the pragmatistic perspective elaborated by Schön (1983, 1987), who, starting from a critique of the dominant technical rationality, introduces two concepts of reflection: reflection-in-action and reflection-on-action. Reflecting-in-action, which Schön compares to “thinking on your feet” (1983, p. 54), means thinking about doing something while doing it (1983, p. 54). In accordance with the Deweyan perspective, Schön conceives of this kind of reflection as occurring when one experiences a surprise, an unforeseen event. Being capable of this kind of reflection should enable researchers to function competently in situations where no answers or standard procedures are available to face up to problematic and confusing cases. But, in order to enhance one’s competence, it is also possible to carry out the reflection-on-action, which consists in thinking back on what we have done in order to comprehend how one’s knowing-in-action may have contributed to the solution of the problem (Schön, 1987, pp. 22–27).

The Critical Perspective

Critical reflection is a conception worked out in the frame of critical pedagogy, which in its turn takes critical theory as a reference. In this context, a very interesting perspective on reflection is the one offered by Michel Foucault (1990), who assigns to reflect the aim of degoverning the mind.

Critical perspective is based on the following assumptions: Thought is permeated by power relations that are socially and historically constituted, everyday life is dominated by hegemonic forces which infuse culture with coercive values and blinding prejudices, and the oppressive forces that regulate social life are reproduced through language, which is not a neutral tool, but a device of power. On these bases, critical theory asserts that one’s life, both in the private and in the professional sphere, is not a limpid and tranquil pond, which we can manage by cutting it off from the dynamics of power that permeates one’s environment. The larger economic, social, and political environment conditions our life both in a evident and explicit way—through laws, codes, and rules—and in a tacit way, since life is infused by “hegemonic assumptions” (Brookfield, 1995), that is assertions—such as stock opinions, conventional wisdom, and commonsense statements—which decide in our own best interest and are so deeply embedded in our life that they act with tacit power. Critical reflection is focused on uncovering these hegemonic assumptions, which permeate the context invading and distorting one’s life, both in the intimate and social spheres. However, since they have become part of the cultural air we breathe, it is difficult to unearth them, also because the power groups are interested in shielding them from critical investigation. Critical theorists attribute to critical reflection the task of unmasking the tacit hegemonic assumptions that infuse our context of life, in order to interrupt the reproduction of systems of class, race, and gender oppression (Giroux & McLaren, 1989; Kanpol, 1999; Lather, 1991).

In particular, Foucault hopes for a critical way of thinking, which explores the ways wherein the discourse reproduces relations of power and how the criteria for deciding what truth is are discursively situated and implicated in relations of power. In Foucault’s view, the practice of critical reflection implies to have the courage for taking the intimate decision to uncover what silent cognitive acts govern our lives. Opposing the various kinds of governing means to subject each statement to a critical appraisal, rejecting any predefined authority. To be critical is to practice “voluntary disobedience and reasoned undocility”. Thus, for Foucault (1985) critical thinking is not only an intellectual tool but a way of life, which allows the subject to gain an ethical stance. To find oneself governed by forces of power is not a natural condition of human life but is the product of precise cultural processes that the individual has the ethical task to investigate critically. To dedicate oneself to critical reflection is an exercise of liberty. Indeed, Foucault (1990) conceives the art of criticizing as a kind of virtue.

Independent of the radical differences between pragmatistic and critical reflection, there is however a common quality between them, which consists in pursuing a transformative goal: as in the pragmatistic viewpoint, reflection is not a mere intellectual exercise, since it is action oriented, aiming at solving problems in order to make life better, likewise in the critical framework, reflection is conceived of as having
concrete implications, because it has not only a deconstructivist but also an empowering task, since it should release the subject from the different governing forces and allow him or her to change his or her life conditions. Both conceptions are aimed at improving practice, for this reason, these kinds of reflection are often developed in action-research contexts.

The Hermeneutic Perspective

Van Manen (1977) proposes three levels of reflection: technical reflection, which is concerned with the efficiency and effectiveness of the means to achieve unproblematized ends; practical reflection, which takes into account not only the means but also the ends of one’s actions; and critical reflection, which examines questions of justice in one’s professional field and locates the analysis of one’s practice within wider social, economic, and political contexts. Most recently (Van Manen, 1991, p. 101), he distinguished among anticipatory reflection, which deliberates about possible future alternatives; active reflection, which recalls the Schö-nian concept of reflection-in-action; and recolletive reflection, which is oriented to making sense of past experiences, to this, he also adds the mindfulness posture, a way by which the practitioner tends to maintain a certain distance from the actions he or she is involved in. However, one can argue with Van Manen’s thesis (1991, p. 98) according to which “to reflect is to think,” and in the field of education reflection has the quality “of deliberation, of making choices, of coming to decisions about alternative courses of action.” On the contrary, reflection is different both from thinking and deliberation. To think is an umbrella concept, encompassing many mental activities: to meditate, to look for an answer, and to seek an interpretation, and so on. To deliberate means to assess an uncertain situation in order to take a right decision for action. To reflect, from the Latin verb reflectere, means “to bend, fold back, go back to, revise, and recede.” Basically, reflecting means to “turn back,” to suspend the action and concentrate the attentiveness on the thinking while it flows. Reflection should never be confused with deliberation, indeed, the first is the condition of the second, in the sense that “reflection can provide the basis for rational responsible choices” (Fendler, 2003, p. 18).

On the basis of the conceptions of reflexivity presented above, we observe that a wide range of methods for fostering reflection have been applied, but from the literature, it appears that little scientific evidence show how effective they are (Hatton & Smith, 1995, p. 36). Many techniques are used: oral interviews, writing journal, and autobiographies, and these are experienced in different learning environments. These strategies are expected to facilitate reflection, but little research testifies to their real effectiveness. It is not sufficient to present a model of reflective training, but in order to facilitate reflective practice, a theory must explain more analytically what the reflective act consists of.

By taking into account the question identified above, the following part of the study introduces another philosophical approach, the phenomenological theory of reflection, which hasn’t yet received adequate consideration within the academic community. This approach is relevant in the field of reflection training, since it explains in a rigorous way the mental acts involved in a reflexive process.

The Phenomenological Perspective

The phenomenological philosophy assumes understanding the life of the mind as its fundamental aim. Before dealing with the topic of phenomenological reflection, it is necessary to clarify that the main reference of the present analysis is Husserlian philosophy, which consists in a less than facile discourse, because of the highly technical jargon used and the stylistically tortuous way in which it is written (Moran, 2000).

Husserl is interested in attaining a rigorous science and to this aim maintains that the investigation must go to the “things in themselves,” that is the phenomena as they immediately appear to the consciousness, only in the manner they appear. Thus, the object of phenomenology is the life of consciousness, more precisely the lived experience or mental processes of consciousness (Erlebnisse), and its aim consists in finding a method to make it possible to investigate them in a rigorous way (Husserl, 1982, vol. I, § 33, pp. 65–68).

The cognitive act that allows the subject to grasp the lived experience of consciousness is reflection. In eidetic phenomenology, reflecting means keeping the gaze firmly turned on the life of consciousness in order to understand what occurs in it. The task of phenomenological reflection (phänomenologische Reflexion) should be seizing the essence of the stream of consciousness. That is possible because the mental stream is made up of lived experiences, each of which has an individual essence, which can be analyzed in its peculiarity.

From a phenomenological point of view, the processes that take place in the mind, as cognitive phenomena, “can become the object of investigation in introspection” (Arendt, 1958, p. 280). By introspection, phenomenology means the activation of an inner gaze, or “mental regard” (Husserl, 1982, vol. I, § 35, p. 71), moved by the sheer cognitive concern to understand mental life. Thus, carrying out a phenomenological reflection means to activate introspection, in order to seize upon the immediacy of the unreflective mental experience and to give voice to it in order to grasp its essence (Varela, Thompson, & Rosch, 1991, p. 19). As it is understood by phenomenology, reflection is a metacognitive act, since it is the way cognition analyzes itself; a thinking which thinks through the life of the mind precisely, while it generates the things-of-thought. In other words, “it is the practice of a rigorous self-examination, through which to investigate the processes of meaning-origination” (Moran, 2000, p. 61).

The cognitive act that characterizes the phenomenological reflection is “paying attention.” There is an external attention, which is turned on the world: It is at the root of the generation of meaning regarding experience; and there is an internal attention, which consists in “having the mind’s eye on” (Husserl, 1982, vol. I, § 37, p. 77), which keeps the stream of thoughts in its gaze: it originates the “reflective turning of regard”
(Husserl, 1982, vol. I, § 38, p. 78). Thus, starting from this conceptual analysis, reflection results in a cognitive act that is different from the thinking. The acts of thinking assume as intentional objects phenomena that are part of the world (they examine a practical problem, evaluate an event, and investigate a philosophical question), whereas the reflective acts have the thinking acts themselves as their object. Reflection is the thinking that thinks on itself.

Just because the reflective acts are of the same substance of the acts of thinking, they can become in their turn the object of new reflections, so reflection can be made ad infinitum (Husserl, 1982, vol. I, § 77, p. 174). When the mind reflects on the reflective acts, it realizes what Husserl defines a reflection of “a higher level” (Husserl, 1982, vol. I, § 77, p. 177), which is a meta reflection.

What is interesting from a training standpoint is that Husserl indicates the method whereby the mind can reflect on itself for self-understanding: it is the method of describing. Husserl characterized his approach as “descriptive phenomenology” (Moran, 2000, p. 66) or a “descriptive science” (Husserl, 1982, vol. I, § 65, p. 150). In order to grasp the essence of a phenomenon, description has to be inspired by the principle of faithfulness, which is the first methodic principle of phenomenology, because a reflection is rigorous when it is grounded in a “scrupulous faithfulness of description” (Husserl, 2000, p. 125).

To describe faithfully means to name the phenomena in the manner of their appearing, limiting the words to what is directly given. Mental processes too have their clear givenness, which allow us to describe them as they are experienced, in the manner as they are given to the inner gaze. In order to gain a rigorous cognition of the mental life through reflection, the act of describing must absolutely avoid going beyond what is immediately given to the reflective gaze, and the description has to be adherent to what is immanently appeared.

Thus, reflection is the inner gaze that turns on the acts of the mind and actualizes itself in scrutinizing and describing analytically them in order to seize upon their original essence and to formulate that essence in “faithful conceptual expressions” (Husserl, 1982, vol. I, § 65, p. 150). In organizing experiences of education to reflection, it is necessary to keep in mind that from a phenomenological perspective, there are two errors: lack of attention and misdescription (Moran, 2000, p. 131).

The Limits of Reflection

It is important to free the theory of reflection from any illusions of gaining complete awareness of the experiential life of consciousness. Capturing the whole richness of mental experience is impossible for three reasons:

a. Reflecting on a thought while it happens implies the cognitive move of extracting a thought from its stream, but only some fragments of mental life are accessible to reflection, while the background remains obscure.

b. Reflection is a cognitive activity that takes place after the fact, by being thus retrospective, it cannot capture the object of attention in its entirety, but only in what the reflective act can retain.

c. The mental life is so complex that, in order to gain complete awareness of it, it would be necessary for us to become spectators of its flowing from a place of observation outside ourselves. Gaining this position is impossible. The human mind is only allowed cognitions of the cognition from inside the cognition itself, thus from a limited visual angle. Reflection on consciousness is immanent to consciousness, and consequently, reflection carries with it a blind spot that cannot be elucidated (Merleau-Ponty, 1968).

If we may identify the mind with the psuché of Heraclites, the same words would hold true: “Whatever road we travel, we will never reach the boundaries of the mind, in that its deeps are unfathomable” (Husserl, 1968, p. 196). This is the reason why the analysis of the life of the mind will always be partial and provisional.

Nevertheless, however, incomplete and fragmentary the cognitions of cognition are, reflection is essential because it allows us to have some information about “where we are when we think” (Arendt, 1978, p. 195), that is from what banister we think, and a mental banister is not only made of thoughts but also of emotions.

A rationalistic conception of reflection tends to consider reflective acts only from the intellectual side of the epistemic process, by leaving out the emotional side. Instead, emotional lived experience (moods, sentiments, passions) permeates the heuristic process and often plays a decisive role as regards the epistemic choices. Orienting reflection toward the emotional lived experience happening in the heuristic process has to be guided by the intention to identify and understand the affective side of the thinking in order to gain awareness about the ways emotions perform the heuristic acts.

Focusing reflection on the emotional side of research does not mean to fall into a sentimentalist and irrational approach; indeed, from a cognitive perspective, an emotion has a cognitive substance, which is made of an appraisal (Oatley, 1992). Thus, reflecting on the emotional side of the research work means to enlighten the appraisals that are at the roots of many heuristic choices. Recognizing the beliefs that are at the basis of a way of feeling is essential in order to understand what are the streams of thoughts that structure our own mental life.

Mindfulness

After identifying the object and the method of reflection, it is necessary to individuate the posture the mind should keep. The Western philosophical tradition doesn’t give us information about that. For this reason, cognitive scientists such as Francisco Varela, Evan Thompson, and Eleanor Rosch—who work in the framework of Merleau-Ponty’s phenomenology—suggest that we should encompass non-Western traditions of
reflection on mental life, in particular the Buddhist method of examining lived experience called “mindfulness meditation” (Varela et al., 1991, p. 21). Applying the method of mindfulness means to keep the mental flow present in its experience while it happens; the purpose of this practice “is to become mindful, to experience what one’s mind is doing as it does it, to be present with one’s mind” (Varela et al., 1991, p. 23). In the natural attitude of the mind, thoughts have a tendency to wander; when this attitude prevails, thinking is entrapped in reified categories and automatic schemes of behavior, so it is impossible to assume a reflective posture toward experience. Learning the method of mindfulness means “to render the mind able to be present to itself long enough to gain insight into its own nature and functioning” (Varela et al., 1991, p. 24). To be mindful means to pay attention to the “right here, right now” and to infuse the present moment with full concentration. The practice of mindfulness made it possible to interrupt mindlessness, the fact of being mindlessly involved, unaware of this mindlessness condition. There is a very strong relationship between the Husserlian concept of reflection and the Buddhist one, because both conceive it as a manner of studying the life of the mind, without any direct practical preoccupation. Robert Tremmel (1993) also proposes the Buddhist conception of the mind’s attitude in reflection, or more precisely the Zen conception, because it allows us to gain a perspective from outside the Western tradition of thought, which can facilitate the development of a mindful attitude. He makes a deep and very interesting presentation of mindfulness, but he maintains that “although mindfulness should not be equated with reflection in the broad sense, there is an important common round between mindfulness and reflection-in-action” (Tremmel, 1993, p. 444). I think, on the contrary, that it is only apparently so, since while reflection-in-action—as conceptualized by Schön—happens immediately when the subject perceives a problem, and this precise reflective act interrupts a nonreflective attitude, instead mindfulness is a way of being in touch with one’s experience, intentionally activated by the subject independently of any external stimulus. Mindfulness is a stance to cultivate with continuity. Being mindful means living with a persistent attention concentrated on the present.

In order to clarify the concept of mindfulness, it is useful to refer to the philosophy of Hannah Arendt, who dialogues intensively with the Eastern thought from a phenomenological standpoint. By questioning “where are we when we think?” she describes the mindful posture as the capability of withdrawing oneself from the external things that occur and recol ling one’s mental activities upon themselves (Arendt, 1978, p. 202), to be present to the present while it happens, with the mind entirely absorbed in its activities. Arendt (1978, p. 207) speaks of “nunc stans,” a Latin expression that can be translated with “standing in the now,” that is, withdrawing oneself from ordinary time and letting the mind situate itself in the gap between past and future.

The assumption of this study is that the mindfulness practice, as it is conceived by phenomenology and cognitive sciences, is useful in epistemic contexts, since through learning the mindfulness method a researcher can develop the capability of keep attention centered to the heuristic acts while these happen.

The Primacy of the Phenomenological Conception of Reflection

This phenomenological interest in consciousness, entirely focused on the internal experience, has undergone a lot of criticism, above all from critical educational theorists, because it is conceived as a disengagement from the world, since it fails to move beyond the act of describing meanings in order to gain a more practical commitment and/or address social and political issues (Taylor, 1998, p. 145). This is an acceptable critique; however, it is necessary to recall that the aim of Husserl was to identify a rigorous way of thinking and thus to find a basic method on which to ground any scientific research. Phenomenological reflection has thus to be assumed as a basic cognitive act that allows us a rigorous approach to the scientific work. If pragmatist reflection is provoked by the perception of a surprise or an unforeseen event, and if critical reflection is motivated by the awareness of cases of injustice, instead phenomenological reflection is a method for self-education, wherein the mind learns to keep itself present here and now. In this sense, it is the basic kind of reflection.

The thesis of this study is that the practice of phenomenological reflection can be considered a basic kind of training, because it enhances the capability of the mind to go in depth in its life. In particular, it proves to be a crucial way to facilitate radical reflection.

By “radical reflection,” I intend a reflection which, through in-depth interrogation of the mental life, aims at focusing on hunting down assumptions. According to Brookfield (1995, p. 2), “assumptions are the taken-for-granted beliefs ... that seems so obvious to us as not to need stating explicitly.” Brookfield (1995) discriminates among paradigmatic assumptions, which are basic structuring axioms that we use to create order in the world; prescriptive assumptions, which establish what ought to happen in a particular situation; and causal assumptions, which explain how reality functions (pp. 2–3). Starting from a different gnoseological vision according to which each assumption plays a prescriptive role, I propose another categorization by conceiving the intimate core of the cognitive life as made of ontological assumptions, which state the quality of things in the world; gnoseological assumptions, which establish how knowledge happens; epistemological assumptions, which decide what criteria validate knowledge and what is true and what is not; ethical assumptions, which discriminate what is right to do and what is not; and political assumptions, which identify what is a good research to increase the quality of life. Education to radical reflection ought to guide the mind to discover the tacit assumptions that structure the core of thinking and exert a performative power over our mental life. If “we are our assumptions” (Brookfield, 1995, p. 2), consequently we can argue that becoming aware of the importance of investigating the tacit cognitive dynamics and learning
to dedicate oneself to a radical self-inquiry is one of the most important tasks we should face not only for the research work but also for the everyday life, and thus a main aim of education.

Phenomenological reflection is a basic cognitive exercise to practice for developing the capability to dig for our mental experience and so to gain awareness of it. This kind of reflection is what allows researchers to perform a real reflective practice and not a mere thinking about practice (Parker, 1997, p. 30). Radical reflection is a condition for carrying out the critical reflection that demands the uncovering of hegemonic assumptions.

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