

**Moral stuttering: bioethics for teachers, anyone?****Inna Semetsky***"Moral experience is a puzzle and moral education is its stumbling interpreter"**Howard B. Radest, From Clinic to Classroom: Medical Ethics and Moral Education, (2000: 11).***Introduction**

The recent EPAT issue on Peirce and education (2005, 37/2) has explored Charles Sanders Peirce's pragmatism mainly with regard to the problematics of learning and acquiring knowledge. This paper will shift the focus toward the moral dimension inherent in pragmatic philosophy. I will introduce a neologism, "moral stuttering", as pertaining to real life problem solving and ethical decision-making that the educators are confronted with on a continuous basis. Contrary to negative connotations carried by such notions in the discourse on bioethics as moral silence, moral blindness, moral unpreparedness, moral indifference, or moral complacency, "stuttering" will be posited as a concept indispensable in dealing with ethical problems. Moral education, which is traditionally centred on educating values, character education, or inculcating virtues, will be reconceptualized within a model that should incorporate "moral stuttering". Peircean triadic relational dynamics, as grounded in experience, enables practical (albeit uncertain or "stuttering") *knowing-how* rather than relying on fixed goals, abstract principles, or universal rules for action. For pragmatists, logic is the ethics of thinking and ethics is the logic of doing. A tentative conclusion of the paper is that moral subject - as constituted in relations that will have incorporated "stuttering" - is compatible with Sankey's (2004) "synaptic self" because of the libidinal economy of the unconscious. The paper will have demonstrated that it is "stuttering", which - by defying the dichotomy between "is" and "ought", facts and values, knowledge and action - necessarily contributes to construction of moral Self situated amidst contingencies of conflicting experiences.

**Peirce's philosophy and educational theory**

Nel Noddings, in her 1998 text *Philosophy of Education*, acknowledged Peirce's theory of meaning as his contribution to pragmatism. Together with William James, John Dewey, and George Herbert Mead, Charles Sanders Peirce belongs to a school of philosophy that posited logic as a theory of dynamic inquiry irreducible to some indubitable and certain knowledge. Peirce equated logic with triadic semiotics, that is, a relational process describing the quasi-necessary laws of thinking. Semiotics represents relations between a subject and an object as embedded in signs, both linguistic and extra-linguistic. The action of signs is such that a sign is both affected by the object and is affecting one's mind, thereby producing an effect—or meaning—called by Peirce the interpretant of the sign. Knowledge thus is not limited to a single truth residing in some objective realm of references but involves subjective interpretation and meaning making. Peirce's pragmatic maxim presupposes the creation of meanings as production of real effects.

The triadic nature of relations between signs is reflected in Peirce's classifying signs in terms of basic categories of Firstness, Secondness, and Thirdness. Third is the conception of mediation, or learning; as such it effectively eliminates dichotomies pertaining to the dualistic and mechanistic approach of traditional analytic philosophy. In the educational context, learning is one of the parameters that determine success of education. In the recent special issue of *Educational Philosophy and Theory* (Semetsky 2005, Ed.), Christine L. McCarthy addressed the relevance of Peirce's epistemology for solving the every-day, practical problems constituting contemporary education. She noticed the extent to which Peirce's pragmatism is currently overlooked in education and suggested a serious revision and

re-consideration of his thinking for educational practice. McCarthy questioned Richard Rorty's anti-foundational stance towards pragmatic conception of truth and suggested that Peirce's epistemological thrust was rather based on ontological realism; indeed only as such it will avoid bringing forth destructive educational consequences. McCarthy justified her position by the detailed analysis of Peirce's triadic categories as aspects of objective reality; however it remains the task of one's subjective mind to separate the true beliefs from the false, to make one's ideas clear. There can be no return to the traditional theory of truth as correspondence; rather what is indeed real is a representation, a sign.

The paper co-authored by Donald J. Cunningham, James B. Schreiber and Connie M. Moss (2005: 177-190) presented a thorough exploration of Peirce's views on belief, doubt, and reason. The authors decided to explicitly draw from Peirce's work *The Fixation of Beliefs* published in 1877. They addressed Peirce's three forms of reasoning as modes of scientific inference, namely: abduction, deduction, and induction, pointing out that an intelligent inquiry is a fundamental process for everyone rather than being a privileged activity of some "experts". The fostering of reasoning, posited by the authors in contrast to the standard model of transmitting the pre-existing set of facts or cultural beliefs, is presented as a task of education. The authors noticed the importance of changing one's beliefs and recommended Peirce's three methods of communication as a possibility of achieving this purpose. Contrary to McCarthy, they asserted the validity of the constructivist method of learning while recognizing (as McCarthy also did) its excessive subjectivism to which Peirce would have ultimately objected. Lastly, the authors addressed some methods of on-line instruction presenting to us empirical data of several case studies from a Peircean perspective.

Howard A. Smith (2005: 191-206) blended education with psychosemiotics, the latter defined as the study of how we learn, understand, and use signs of culture by means of "signways". The aim of education, for Smith, is to promote students' competence utilizing multiple semiotic forms through understanding and meaning versus the technocratic and accountability-oriented approach that focuses exclusively on paper-pencil testing. Smith first clarified the complex definition of a Peircean sign, emphasizing the dynamic quality, growth, and evolution of signs summed up under the notion of semiosis. Smith not only presented the aforementioned three forms of inference as per Peirce's categories, but also addressed the motivations for the inferential process. His analysis constituted a nice complement to the problematic of fixation of beliefs elaborated upon by Cunningham *et al.* Significantly, Smith noticed that Peirce seemed to have anticipated the contemporary problematic of the embodied mind as well as the importance of the ever-changing context and environment. Smith connected his concept of "signways" with Howard Gardner's theory of multiple intelligences pointing out that the Peircean approach to education would not delineate between semiotics, or logic, and psychology. Analogously, it should focus equally on both individual and collective (or sociocultural) cognition. Learning from experience is at the core of pragmatic inquiry, and Smith concluded his paper by making a recommendation for establishing classroom conditions as consistent with the psychosemiotic perspective on education.

Phillys Chiasson focused on the three Peircean-inspired learning capabilities identified as qualification, analysis, and interpretation. Chiasson's own parenting and teaching experience served as an assurance that despite these capabilities appearing as a skill that only academically inclined students can master, even young children and the intellectually challenged can successfully learn to use them. Chiasson pointed out the primary importance for educators to develop their own potential by expanding these capabilities within themselves so as to begin bringing about the development of these capabilities in their students. Based on Peirce's approach to right reasoning as informed by ethical considerations, the latter in turn being informed by aesthetic impulses, Chiasson emphasized the importance of aesthetic, ethical and logical considerations embedded in Peirce's epistemology. She acknowledged vagueness as a

property of belief being central to Peirce's philosophy applied to education. She pointed towards the relation in practice between our reasoning and decision-making, further asserting that since nearly all problems plaguing human communities worldwide have to do with the way in which we make choices, the reasoning abilities of our general population constitute the best predictor of the kinds of future choices we, as a society, will make. Her claim that the very fate of society strongly depends on educators is extremely significant. Chiasson suggested that educators, by applying philosophy embedded within Peirce's pragmatism, should be able to develop the tools for bringing about individual citizens capable of applying their reasoning abilities so as to solve many logical, ethical and aesthetic problems of our society.

Torjus Midtgarden assessed the present scholarship on Peirce among philosophers of education, such as J. Garrison and A. Neimann. Midtgarden's careful reading of Barbara Thayer-Bacon's recent account of fallibilistic pluralism led to his elaboration on Peirce's conception of a non-specialized scientific intelligence defined by learning from experience. Midtgarden positioned Peircean strategy as complementary to James and Dewey and acknowledged the importance of context to inquiry and learning. Specifically, his aim is to develop a semiotic theory of learning in terms of Peirce's reconstruction of linguistic and social interactions. Interestingly, Midtgarden pointed out the irreducibility of the conditions of theoretical learning to abilities or capacities of an individual language user conceived solely in biological or psychological terms. It is rather that, for Midtgarden, one's life-experience represented by the unique individual history makes pluralism a normative concept necessary for guiding educational policy. Midtgarden concludes his paper by pointing out some limitations, as he sees them, of Peircean abstractions to a theory of learning: he suggested collecting the evidence of empirical data to further substantiate an educational policy making as based on Peirce's philosophy.

In my own essay *Peirce's Semiotics, Subdoxastic Aboutness, and the Paradox of Inquiry* (in Semetsky 2005) I analysed Peirce's triadic logic with respect to the problem of learning that first surfaced in Plato's *Meno* dialogue. The interplay between Peirce's relational categories of Firstness, Secondness and Thirdness in the course of pragmatic inquiry may help to resolve the paradox of new knowledge. I suggested that philosophy of education should benefit from exploring the problems, which are usually considered to be the prerogative of the philosophy of mind, namely: the relation between the mind and world and the questions of intentionality, meaning, and representation. Peirce's first pre-cognitive semiotic category, abduction, constitutes some pre-conceptual mental content that should not be ignored. I have addressed abduction in terms of what in the philosophy of mind has been called subdoxastic aboutness. Peirce equated learning with "synthetic consciousness", that is, an expanded field of meanings that leads to forming the full-bodied *doxa*. The implicit and tacit knowledge becomes explicated in the process of learning from experience. The total dynamics of sign process presupposes its ties to consciousness thereby fulfilling the condition of genuine intentionality. Because, for Peirce, the growth of reason consists in its embodiment (as also addressed in the article by Howard Smith), the realization of new meanings is inseparable from real experience.

The versatility left by the Peircean legacy has a potential for continuously informing educational discourse. Peirce's supreme maxim of philosophising was, sure enough: never block the road to inquiry. With this in mind, the next dimension to be explored within the Peircean context in education as supplementary to the epistemological is, quite naturally, ethical. But first I would like to revisit some concepts that are currently employed in the discourse on bioethics for the purpose of identifying, criticising, and resolving some of the moral problems (Johnstone 1994).

### **Moral problems and their (dis)contents**

While analytic philosophy tends to construct thought-experiments elaborating imaginary circumstances and hypothetical situations to deal with moral dilemmas, teachers encounter problematic situations on a continual basis in their real-life immediate classroom experience. In this respect teachers, I believe, may have a good deal to learn from nurses and other health professionals embedded in the bioethical domain. Bioethics therefore can be extrapolated to the educational environment. Terence J. Lovat<sup>1</sup> acknowledges three prospective dimensions, namely: philosophical, professional, and curricular, as the areas of research significant for contemporary values education. Traditionally, moral education focused on educating values, character education, or inculcating virtues Lovat has timely noted that the call for professional ethics for educators in the manner of codes of conduct that constitute a common feature in the practices of other professions represents one of the areas of concern in educational discourse. It is my belief that the exploration of philosophical foundations and moral psychology towards the end of negotiating some practice of appropriate professional conduct - rather than just establishing the *a-priori* fixed formal code of ethics for educators - is equally important.

In the discourse on bioethics, Johnstone (1994) notices that moral problems that require spontaneous decision-making and making moral judgment on the spot, so to speak, may emerge in the variety of forms. Let us start from what Johnstone calls the "general unpreparedness" (1994: 159), that is, entering a situation without being adequately prepared to deal with complex issues or lacking the necessary moral knowledge, appropriate attitude or simply suitable vocabulary for making and articulating a decision. Being unprepared may result in an unintentional failure in identifying a moral problem in the first place and accordingly failing an appropriate response so as to prevent a morally disastrous outcome from happening. A second type of problem may be called "moral blindness" (Johnstone 1994: 163). There is a problem all right, but rather than being recognized as a *moral* problem, it is erroneously considered in terms of a simple lack of information or - as pertaining to the educational context - as a "normal" everyday hazard of schooling. The lack of sensitivity or a sheer absence of a free minute may prevent a teacher from perceiving the nuances and diversities of context in which the problem has appeared. Similar to the oft-cited rabbit versus duck example, teachers may remain stuck in a habitual perspective therefore unable to adopt an alternative point of view. The result may be a seemingly right decision if looked at from the viewpoint of technicality; yet, this decision may have been made "at the expense of *morally correct* decisions" (Johnstone 1994: 165).

A third type of problem that teachers, similar to nurses, may easily encounter is identified in bioethical literature as "moral indifference, [that is], an unconcerned or uninterested attitude towards demands to be moral" (Johnstone 1994: 166) whenever a particular situation calls for a right action, especially if and when constrained by sometimes conflicting legal, administrative or institutional regulations. Similar to amoralism (a fourth type of moral problem, according to Johnstone), it is characterized by the lack of ethical concern and often an explicit rejection of morality altogether. As a stance, it differs from immoralism, the latter accepting morality however easily violating its demands and requirements. A fifth type of moral problem is a common one and is that of "moral complacency" (Johnstone 1994: 170) identified as an unwillingness to accept that one's moral views may be short-sighted or simply mistaken. Johnstone agrees that complacency may be rectified by moral education, that is, by problematising quite a number of taken-for-granted assumptions and foundational beliefs thereby understanding that their inviolability itself is questionable. The role of the Other in this context is extremely important as it is precisely "*other* people's moral interests [that] are at stake" (Johnstone 1994: 171) when different values conflict with each other. A sixth type of moral problem borders on a dangerous one, namely: moral fanaticism, when moral judgements are made in the most rigid and uncritical manner, and often in order to accord with and satisfy some supreme principle(s).

Yet another type of moral problem is moral dilemma, that is, a choice to be made in regards to specific situation and between what appear to be the two equally desirable or undesirable options. A moral dilemma may occur in the form of logical incompatibility between two principles; or in the context of conflicting moral duties; or in case of it "entailing *competing and conflicting interests*. Here the question raised for the moral observer is: 'Whose interests ought I to uphold?'" (Johnstone 1994: 179). A seventh type of moral problem is moral disagreement that usually arises with regard to "selection, interpretation, application and evaluation of moral standards" (Johnstone 1994: 172) and may involve both internal and radical disagreements. Internal moral disagreement may reflect either a conflict about priority of accepted standards; or disagreeing on the range of acceptable exceptions and limitations to the otherwise shared morals - that is, a disagreement based on different interpretation; or it centres on the very selection of ethical standards. In case of radical disagreement, however, "dissenting parties" (Johnstone 1994: 174) cannot pick up any common criteria not do they share basic moral principles so that any resolution of a dispute is quite unlikely.

Moral disagreement is, however, paradoxically advantageous in that it may indeed lead to the necessity of developing skills of critical thinking and moral reasoning, and it is a specific and rather paradoxical structure of the process of moral reasoning, from the perspective of Peirce's triadic semiotic, that I will be addressing in the next section positing it as both necessary and beneficial for resolving moral problems. This model differs substantially from the rational step-by-step deliberation as a moral decision-making process and - contrary to negative connotations carried by the aforementioned notions (moral silence, moral blindness, moral indifference, etc.) - I posit such pre-deliberative "moral stuttering" as a concept indispensable in dealing with ethical problems embedded in real-life situations and environmental contingencies.

### **Ethical judgment and the necessity of "stuttering"**

Peirce's pragmatism blends logic and psychology and allows for the pre-sensory, preconscious, and not limited to sense-data apprehension of reality, upon which - despite it being necessarily vague - people are prepared to act. Pragmatic inquiry does not separate knowledge from practical action: this unity of knowledge and action, in fact, contributes to pragmatism's unorthodox treatment of moral psychology and ethical judgment. Abduction, as a pre-cognitive semiotic category of Firstness that constitutes, for Peirce, a qualitative immediacy of experience - called a *quali-signification* - may function in the form of insight, intuition or imagination, that is, as a category traditionally left outside the boundaries of formal syllogistic reasoning. The practical bearings, as Peirce called them, of some possible precognitive reasoning, are not to be ignored. They represent bodily sensations, even if "so faint" (Peirce and Jastrow 1884 quoted in Hacking 1990: 205) as to bypassing the level of common awareness. It is quite difficult to account for rational conclusions based on such vague and faint first impressions that may appear to border on a purely reflexive action. In a characteristic language, Peirce and his student Jastrow commented that the "insight of females as well as certain 'telepathic' phenomena may be explained in this way. Such faint sensations ought to be fully studied by the psychologist and assiduously cultivated by every man" (in Hacking 1990: 206). Peirce (CP 5. 184) was adamant that there was no sharp line of demarcation between abduction and perceptual judgment: one would be shading into the other within subtleties of the total inferential process. Such an inference is conjectural or hypothetical only, yet, according to Peirce (CP 5. 189), there is a reason to believe that the resulting judgment, under the circumstances, will be true.

Abduction seems to function instantaneously as an immediate (re)action but not because there is no temporal interval of inference. Rather, the time-interval is so short that the conscious mind remains unaware of when it may begin or end. Describing the structure of perceptual abduction, Peirce remarked that "the first premise is not actually thought, though it is in the mind habitually. This, of

itself would not make the inference unconscious. But it is so because it is not recognized as an inference; the conclusion is accepted without our knowing how" (Peirce CP 8. 64-65); in other words, in the absence of a supposedly uninterrupted chain of logical propositions from premises to conclusion. The chain that only appears to be continuous would be paradoxically broken or discontinuous.

Contemporary neuroscience (Varela 1999) recognizes the existence of an imperceptible temporal gap of not more than 500msec in brain activity, during which a kind of the unconscious processing of information is supposed to take place. Far from being a conscious judgment or either deductive or inductive rational decision-making, it is represented by a bodily action expressed not in a cognitive form but as a "punctuated succession of behavioural patterns" (Varela 1999: 49) that pragmatic philosophers such as Peirce and Dewey would have qualified as *habits*. Habits belong to the Peircean cardinal category of Thirdness that, by definition, always already includes Firstness, which may take the form of abduction, in itself. Abduction is indeed the "'first', present, immediate, fresh, new, initiative, original, spontaneous, free" (Peirce CP 1. 302). Although tending towards making a judgment, the process in question remains "subconscious ... [and] does not have to make separate acts of inference" (Peirce 1998: 227). Yet, "if we were to subject this subconscious process to logical analysis, we should find that it terminated in what this analysis would represent as an abductive inference" (Peirce CP 5. 181).

What seems to be a paradox is part and parcel of the tri-relative, *synechistic*, and "self-generative" (Peirce CP 1. 409) semiotic process, described by a general law ultimately defined in terms of the "tendency of all things to take habits" (Peirce CP 6. 101). Habits, for Peirce, are dispositions to act in a certain way under specific circumstances "and when actuated by a given motive" (Peirce CP 5. 480). The mind "hidebound with habits" (Peirce 1955: 351) is, for Peirce, what we call matter; therefore at the level of habitual actions (Thirdness) the dualistic split between mental (Firstness) and physical (Secondness) properties is blurred!<sup>2</sup> A situation as a whole is what motivates the abductive judgment because of an encounter with Otherness and the resulting immediate action this encounter would have called for. Such an action would not "spring from [conscious] judgment and reasoning, but from an *immediate coping* with what is confronting us... [It is] the situation [that] brought forth the actions from us" (Varela 1999: 5, italics in original).

But will it constitute an *ethical* action? Wouldn't such an immediate (re)action amount to the aforementioned critique in bioethics of moral blindness, or indifference, or unpreparedness, or other possible handicaps for moral judgement? I don't think so. Peirce asserted that abduction, albeit fallible, has a rather mysterious power "of guessing right" (Peirce CP 6. 530) even while being pre-conscious and not rationally controllable so that it leads to judgment as if forced upon one's acceptance by the totally involuntary mental process. At this level there are what Peirce called real and "physically efficient" (Peirce CP 5. 431) *generals*, and a hypothetical idea constituting a psychological ground for a habit carries within itself a flavour of anticipation: it "is already determinative of acts in the future to an extent to which it is not now conscious" (Peirce CP 6. 156). The propositional thinking amounts to *knowing-that*, but the non-propositional habit leads to *knowing-how*, the latter embodied within an immediate coping with a problematic situation in contrast to a rational judgment founded on the rule-based deliberation. John Dewey was explicit in this regard: we indeed "*know how* by means of our habits... We...do a thousand useful acts without thinking of them. We know something, namely, how to do them... [And] it is a commonplace that the more suavely efficient a habit the more unconsciously it operates" (Dewey 1922/1988: 124-125).

For Dewey, as well for Peirce, it is the feeling of habits operating, sure enough, "below direct consciousness" (Dewey 1922/1988: 26) that leads to the accompanying feeling of the direction that the multiple various lines of possible actions might take. What in fact entails the mind-body dualism is the deeply ingrained supposed separation between an intellect and concrete empirical facts of both biological impulses and the formation of habits. Abduction in this respect would be a natural impulse or "special sensitiveness" (Dewey 1922/1988: 32) embodied in an environing situation and resulting in "knowledge, judgment, belief" (Dewey 1922/1988: 130), provided of course the scope of this knowledge is much broader than that of "pure reason". The rational knowing-that gives way to practical wisdom exemplified in the ethical action of knowing-how, in which habits - that primarily "denote *ways of behavior*" (Dewey 1922/1988: 45; italics in original) - effectively conflate with the *know-how* of thought and action alike. Indeed, "a wise (or virtuous) person is *one who knows what is good and spontaneously does it*" (Varela 1999: 4; italics in original) amidst the immediacy of perception and action and in the absence of some rationally deduced conscious "goal" of such an action.

It is this spontaneity that represents what Varela called an "apparent paradox of nonlocalization" (Varela 1999: 60): due to the fact that judgment is being made subconsciously, the centrality of Self as a cognising subject is being called into question; metaphorically, such self is nowhere to be located. Perhaps it vanishes into neuronal synapses and becomes what Sankey (together with LeDoux 2002) would have called the synaptic self; the latter - albeit subconscious - has been posited as still capable of having values and making important choices (Sankey 2004). Contrary to Cartesian paradigm that asserts the central position of *Cogito*, this nonlocality constitutes the *dis-unity* of consciousness that cannot but make abductive judgments in a punctuated or, as I prefer to say, stuttering manner in the form of immediate organic activity and without any *explicit* cognitive awareness of the said activity. Such moral stuttering, while defying our customary "feeling of 'I' as a true center" (Varela 1999: 61), nonetheless contributes to the emergence of the plurality of paradoxically "selfless" (Varela 1999: 61) selves that enact (Varela's expression) and re-enact the particularities of experiential situations and contingent events. In terms of Peircean mathematical logic, stuttering would have symbolised a momentous discontinuity as part and parcel of the continuum, that is, density permeated by infinitesimals.

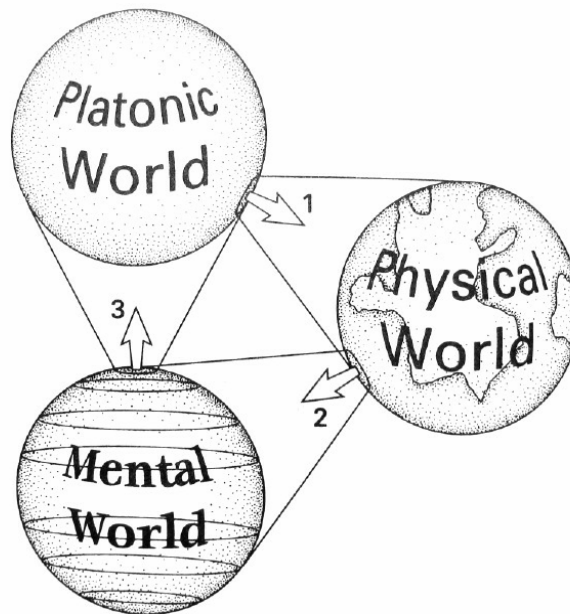
Abduction is potentially transformative, according to Peirce, in its function to generate a meaning for a habit. Peirce called these ontological possibilities "airy nothings to which the mind of a poet, pure mathematician, or another might give local habitation and a name within that mind" (Peirce CP 6. 455). New information derived from as though "nothingness" of the unconscious with the help of insight both conceptualises an idea and embodies it in the physical world of action: it "brings information ...determines the idea and gives it body" (Peirce CP 1. 537). The whole experiential situation "calls up something not present to the senses" (Dewey 1991: 71), and the genesis of reflexive deliberation must originate in its as yet pre-cognitive, imperceptible and abductive state within "a substratum in the depth of the subconsciousness, [at the level of] the basic pattern of the relations of the live creature to its environment" (Dewey 1934/1980: 150). For Dewey, the unconscious activities refer to potential realities of the kind that enable one to re-shape natural objects. What he calls an affective thought is part of "an economical balance of the unconscious and the conscious" (Dewey 1991: 216); therefore the libidinal, or affective, economy of the unconscious is a factor on which success in education depends. All logical reasoning is necessarily preceded by "more unconscious and tentative methods" (Dewey 1991: 113) such as Peirce's abduction.

Significantly, the immediate coping with the problematic environmental situation is in no way equivalent to the behaviourist stimulus-response model. As belonging to the semiotic process, abductive inference (and it is important to repeat this) takes time that however passes unperceived and below the level of awareness. In fact, the very shortness of this imperceptible interval is grounded in the Thirdness of

our whole evolutionary history. Peircean sign as a triadic relational structure (Semetsky 2005) closes as if on itself, yet every time at the new level of organization because of "connecting the dots" between the novelty of meanings (the realm of values) and a singular experience (the realm of facts). Even if abductive suggestion "comes to us as a flash [and it] is an act of insight" (Peirce CP 5. 181), it still has a peculiar, yet logical (semiotic) form expressed in the law of included middle constituting the paradoxical structure of the Peircean triadic sign. Logic as triadic semiotics is what constitutes an ethics of thinking, which for Peirce is inseparable from human conduct, that is, an ethics of doing. We may assume that it is indeed in the midst of a 500msec gap where abduction intervenes into the process eliciting implicit ethical negotiations and a "rapid dialogue invisible to [cognitive] introspection" (Varela 1999: 49-50)<sup>3</sup>.

Earlier (Semetsky 2005) I have referred to the so-called semiotic triangle comprising the Peircean triad<sup>4</sup>. A sign process, or semiosis, is potentially unlimited because the *interpretant* of the sign in a triadic sign-object-interpretant relation is bound to again become a *sign* to be interpreted in a subsequent triadic relation, and so forth. Signs exist only in relations that connect a sign with its object, or an object with its interpretant, or an interpretant with a sign *per se*. Or, using the terminology of analytic philosophy, a semiotic triangle would have encompassed a relational structure between a sign, its reference *and* its sense, or meaning. The triad has to be complete: for Peirce, the meaning of a thing comprises "habits it involves" (Peirce CP 5. 4), that is, a genuine sign is irreducible to a sign-reference dyad that would have excluded its sense or *interpretant*. Because every sign is capable of significant meaning, Peirce posited what he called the quasi-mind as the repository of ideas or significant forms. The process of semiosis and the absence of the ontological dualism therefore presuppose what Roger Penrose, non-incidentally, has defined in terms of a "contact with some sort of Platonic world" (Penrose [Penrose, Shimony, Cartwright, Hawking] 1997: 125).

The relationship between the three worlds, namely the physical world, the Platonic world of ideas, and the mental world has been considered a mystery, heavily debated, and dubbed as gaps in Penrose's toilings (Grush & Churchland 1995)<sup>5</sup>. The core of Penrose's argument is that the physical world may be considered a projection of the Platonic world and the world of mind arises from part of the physical world, thus enabling one in this process to insightfully grasp and, respectively, understand some part of the Platonic world. Because the Platonic world is inhabited by mathematical truths, but also due to the "common feeling that these mathematical constructions are products of our mentality" (Penrose [Penrose, Shimony, Cartwright, Hawking] 1997: 96), the mysterious dependence of the natural world on strict [mathematical] laws and the tri-relative relationship can be inscribed in the following diagram on the Figure below:



### "Three Worlds and three mysteries"

(From Penrose [Penrose, Shimony, Cartwright, Hawking] 1997: 96).

These relations stop being mysterious though if we consider Penrose's three worlds as constituting a semiotic triangle and encompassing Peirce's three modes of being. Analogously, I contend, abduction's somewhat "mysterious" guessing power would have lost its share of mystery. According to Peirce, the aforementioned laws would have expressed the Thirdness of habit taking that, for Penrose, would have been represented by a "part of Platonic world which encompasses our physical world" (Penrose [Penrose, Shimony, Cartwright, Hawking] 1997: 97) of matter, as the empirical facts or Seconds. Meanings or values constitute those Thirds that may become "accessible by our mentality" (1997: 97) by virtue of the Firstness of insight or abduction, the latter intrinsically non-computable. The split between facts and values (or "is" and "ought") may thereby be repaired. Indeed, what *in-habits* the Platonic world is not only the true but also the good and the beautiful, which are all "non-computable elements - for example, judgement, common sense, insight, aesthetic sensibility, compassion, morality" (Penrose [Penrose, Shimony, Cartwright, Hawking] 1997: 125). These are significantly all the *moral* attributes of the *psyche* that will have *necessarily* mediated between the mind and the world. The level of meanings simply must exceed references because it encompasses our thinking (mental world) as embedded into our doing (physical world, the world of action), that is, the whole organism-environment *coupling* (cf. Varela 1999), which proceeds in accord with the speculative grammar of Peirce's semiotics. And it is abduction that, in its discontinuous or stuttering (non-computable) manner, enables us to insightfully, even if subconsciously, grasp the glimpse of moral meanings, which may very well happen to have been laid down in the neuronal structure of our "Platonic" *psyche*.

### A concluding remark

In this paper I presented an overview of some recent Peircean scholarship as regards educational philosophy and theory. After a brief excursion into cotemporary discourse in bioethics, I suggested a model of moral stuttering as encompassing Peirce's semiotic category of abduction. This model inevitably problematised the presupposed centrality of moral subject with its core Self grounded in *Cogito* and capable of computational and rule-based decision-making. If some of our judgments are

abductive and subconscious, then we simply cannot reduce moral education to deliberation so as to aim for eliminating some of the handicaps elucidated in bioethical literature. If our ethical action is so very often the outcome of immediate coping with problematic situation and is not totally amenable to introspection, how could such a stance possibly affect the methodology of values education as well as teachers' professional role? I hope that the material comprising the paper, rather than providing a single and self-assured answer to this question, with the *a-priori* given certainty of knowing-that, will duly make us "stutter" in our search for an ethical and "selfless" *know-how*.

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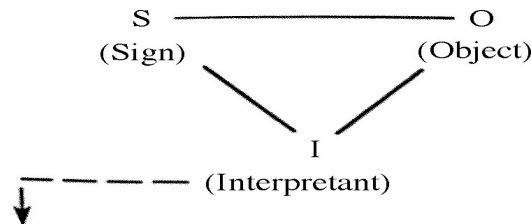
**Endnotes:**

<sup>1</sup> See Terence J. Lovat, "Australian Perspectives On Values Education: Research In Philosophical, Professional And Curricular," online at NSW Department of Education and Training site: [http://www.schools.nsw.edu.au/edu\\_leadership/prof\\_read/ethics/lovat.php](http://www.schools.nsw.edu.au/edu_leadership/prof_read/ethics/lovat.php)

<sup>2</sup>This is how Peirce defines his three irreducible categories: "In psychology Feeling is First, Sense of reaction Second, General conception Third, or mediation. ...Chance is First, Law is Second, the tendency to take habits is Third. Mind is First, Matter is Second, Evolution is Third" (Peirce CP 6.7). The mind-body relation is thoroughly semiotic: because matter (Second) is effete mind (First), mind (First) has to be entrenched in habits (Thirds) so as to congeal, as Peirce says, into matter (Second). Such is the self-organising structure of sign-process (semiosis).

<sup>3</sup> Both Varela (1999) and Sankey (2004) refer to Walter Freeman (1975; 1999), whose research in neuroscience postulated the existence of fast resonance binding, or coordination. It is a coordinated activity, rather than the agency of a central processor, that *enacts* knowledge. See also Kihlstrom (1993) for his description of the now-classic experiment on subliminal perception performed by Peirce with his student Jastrow. Kihlstrom provides many references to the contemporary research in experimental psychology and cognitive science on the topic of psychological unconscious, which is understood as "a domain of mental structures and processes which influence experience, thought, and action outside the phenomenal awareness and voluntary control" (1993: 125).

<sup>4</sup> A reminder: that's what Peirce's triad looks like:



<sup>5</sup> Rick Grush and Patricia Churchland (1995) argue against Penrose's positing a possible insight into Platonic truths, and therefore directly understanding the meanings of the (mathematical) concepts over following the logic of computational rules. But the logic of abduction would have refuted their claim.