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Dziekanat
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Recenzja dorobku naukowego oraz opinia o osiągnięciu naukowym będącym podstawą wniosku o nadanie stopnia doktora habilitowanego (art. 16 ust. 2 ustawy z dnia 14 marca 2003 r. o stopniach naukowych i tytule naukowym oraz o stopniach i tytule w zakresie sztuki Dz.U. 2016, poz. 882 ze zm. w Dz.U. 2015, poz. 1311) w postępowaniu habilitacyjnym dra Piotra Konderaka (dziedzina: nauki społeczne, dyscyplina – nauki o poznaniu i komunikacji społecznej)

Jako publikację będącą podstawą wniosku o nadanie stopnia doktora habilitowanego w rozumieniu ww. ustawy dr Piotr Konderak podaje swoją książkę *Mind, Cognition, Semiosis: Ways to Cognitive Semiotics* (Lublin: Lublin: Wydawnictwo UMCS, 2018, s. 319). Recenzent wydawniczy: Dr Anita Pacholik-Żuromska, korekta: Christopher Garbowski.

As a publication serving as the basis for an application to be granted the post-doctoral degree (habilitation) in accordance with the abovementioned law (art. 16, para. 2 of the bill passed on 14th March 2003, concerning academic degrees and titles and degrees and titles in the field of the arts (Journal of Bills 2016, entry no. 882 with changes, in Journal of Bills 2015, entry no. 1311)), Piotr Konderak (PhD) presents his book *Mind, Cognition, Semiosis: Ways to Cognitive Semiotics* (Lublin: Maria Curie-Skłodowska University Press, 2017, p. 319). Reviewer: Anita Pacholik-Żuromska (PhD, DSc). Proofreading: Christopher Garbowski.

Piotr Konderak PhD completed his studies in philosophy at Maria Curie-Skłodowska University in Lublin with the MA thesis “Foundations of Computational Natural Language Understanding”. His PhD thesis, “The Cognitive Model of the Language Faculty” (2005), in the field of cognitive science and communication studies, was likewise written at Maria Curie-Skłodowska University in Lublin, under the supervision of Prof. Jacek Paśniczek. The dissertation was awarded the Society for the Advancement of Sciences and Arts (Towarzystwo Popierania i Krzewienia Nauk, TPKN) and Batory Foundation Prize for Outstanding PhD Dissertations in Social Sciences and the Humanities in 2006. Since 2006, Dr Konderak has been employed as an Assistant Professor at the Department of Logic and Cognitive Science at the Faculty of Philosophy and Sociology, MSCU in Lublin. He is a member of the Polish Society for Cognitive Science, the Cognitive Science Society, and the International Association for Cognitive Semiotics. Between 2013 and 2017 he was Deputy Director of the Institute of Philosophy, within the Faculty of Philosophy and Sociology at the Maria Curie-Skłodowska University. His research interests are centred upon the philosophy of mind, semiotics, and research into natural language from the perspective of artificial intelligence – especially computational linguistics, conceptualist semantics and semantic networks.

I. Assessment of the publication as a basis for applying to be granted the post-doctoral degree (habilitation) / Opinia o publikacji podanej jako podstawa do ubiegania się o nadanie stopnia doktora habilitowanego

Cognitive semiotics, as a transdisciplinary approach to studying the field of meaning-making, is a relatively new and very complex discipline. It has many sources. On the one hand, its research is focused on the multifaceted phenomenon of meaning, while on the other, its methods apply theories from anthropology, philosophy, semiotics, linguistics, psychology, cognitive science, computational modelling, and other sciences. Even so, everything in this research field is pursued with a view to integrating such different methods and theories for the sake of achieving the ultimate goal of furnishing new knowledge about human signification and its manifestation in human-centred social and cultural practices. From that point of view, its methodology has come to encompass both phenomenological analysis and experimental studies, integrating aspects of the first-, second- and third-person points of view. The first linguist to suggest the integration of the cognitive sciences and semiotics seems to have been Thomas C. Daddesio (*On Minds and Symbols: The Relevance of Cognitive Science for Semiotics*, 1994). Dr Konderak has himself spent several months at the Department of Cognitive Semiotics at Lund University, where a number of academic researchers (G. Sonesson, J. Zlatev, etc.) have been developing a series of interdisciplinary projects involving representatives of semiotics, linguistics and cognitive science, as well as several other humanities-based disciplines. They have so far been primarily concerned with the evolution and development of various semiotics-related resources, and have contributed to a range of topics (the nature of iconicity and its different manifestations, gesture studies, the study of pictures, the evolution and nature of language, the semantics of actual and non-actual motion, and the epistemology and methodology of the human sciences). The topics just mentioned, framed by an orientation towards the pursuit of cognitive semiotics, form the content of Dr Konderak's own book – the one under review here.

This very extensive and systematically presented book consists of an Introduction, Parts I-IV (each made up of two chapters), and Concluding Remarks.

In Chapter 1 (“Introducing Cognitive Semiotics”) of Part I (“Cognitive Semiotics: The Basis”) (p. 21-57), Konderak outlines the general guidelines for cognitive semiotics, and writes: “One of the goals of cognitive semiotics is to identify classes of possible meanings, characterize them and put them in evolutionary and developmental frameworks. In particular, the so-called Lund school in semiotics accepts the hypothesis concerning hierarchy of meaning, the Semiotic Hierarchy framework” (p. 25). The methodological assertion of cognitive semiotics can be dissolved into two components: (i) theory construction should be formulated in such way that it will allow for empirical tests, (ii) integration of the humanities and natural sciences should be conceived as the integration of “first-person, second-person and third-person methods”. The multiplicity of viable perspectives on the phenomenon of meaning is stressed here, with cognitive semiotics being characterized in terms of its transdisciplinarity (taking a dynamic perspective on meaning, acknowledging (ii)), its receptivity to phenomenological contributions (focusing on the “Lifeworld” as given to conscious experience), and its taking into account the so-called “third stage” of cognitive science (itself reflecting phenomenology and enactivism). Konderak then goes on to list what he takes to be the key research interests of cognitive semiotics: metatheoretical considerations, semiotic development and evolution, and the multimodality of gestures. This list is clearly oriented towards the kind of research pursued at the Lund school of cognitive semiotics itself. Finally, he notes that his own broad-based path toward cognitive semiotics “has its roots in traditionally understood cognitive science. ... My approach has been based on a particular understanding of signs and semiosis: the one presented and developed by Charles S. Peirce. ... My approach goes

beyond a strict – phenomenological and enactive – version of cognitive semiotics, but it can be seen as a contribution eliciting some features of meaning-making activity, accepting the multi-layered and dynamical nature of the meaning conceptual-empirical spiral, as well as the transdisciplinarity of cognitive semiotics” (p. 38).

In Chapter 2 (“The Semiotic Hierarchy Framework”), the author presents several issues. Firstly, he addresses the troublesome ambiguities surrounding the concept of meaning as understood in the context of cognitive semiotics, and considers the Semiotic Hierarchy as a theory of meaning (oriented on four levels of organization of meaning-making – life, consciousness, sign function, and language – and registering the fact that meaning is deeply rooted in our biology and life), along with some objections to this hierarchy (namely, that there could be meaning that does not belong to any of these levels, and that it tends to be just assumed that only living systems are capable of meaning). Secondly, he considers how the features of cognitive semiotics enumerated and elaborated in Chapter 1 are exemplified in research practices. (As regards the question of how it is possible for new levels of meaning to emerge, the Semiotic Hierarchy approach seeks evidence from palaeontology, archaeology, neurobiology, etc., where these empirical disciplines are themselves taken to be underpinned by philosophical, semiotic and linguistic theories (p. 54).)

Part II (“Minds and Meanings”) (p. 61-129) is an elaboration of the idea that meaning-making activity requires “minded” subjects. It consists of two chapters. In the first of these, “‘Analytic’ Philosophy of Mind”, Konderak – coming from the direction of the critique of the Cartesian view of mind – briefly discusses the different kinds of behaviourism in the philosophy of mind, along with the type-type identity theory (U. Place, J.J.C Smart), the classical and extended functionalist theories of mind and meaning (H. Putnam, K. Sterelny, A. Clark, D. Chalmers), and the functionalist understanding of “phenomenal” and “access” kinds of consciousness. Konderak notes that according to the Semiotic Hierarchy, phenomenal consciousness plays a salient role in studies of meaning-making: we can ask, for example, about the possibility of extended consciousness. In this regard, he on the one hand follows the direction of T. Nagel (see: “What is it like to be a bat?”), holding that functionalism provides a partial characterization of consciousness in terms of information-processing or functions of mental states, but on the other hand gives three reasons why Nagel’s “mysterianistic” approach has not gained acceptance within cognitive semiotics (p. 89-92).

At the beginning of Chapter 2, “The Phenomenological Mind and Meaning-Making”, Konderak limits himself to a selective presentation of just those issues from continental phenomenology relevant to the cognitive semiotics enterprise. Accordingly, he focuses on the views of researchers who have attempted to combine studies in cognition and in phenomenology (D. Zahavi, S. Gallagher, and E. Thompson). These belong to a group of phenomenologists of whom it may be said that they are concerned to understand perception in terms of the meaning it has for the subject. That concept of phenomenology brings Konderak to “intentionality”, construed as an indispensable feature of consciousness, as a key term needed for understanding cognitive activity, and as a notion that defines the realm of the mental. Intentionality takes different particular forms, all of which are connected with the theory of meaning explored in Chapter 2. Some examples of such interconnected forms are the following: we intend material objects perceptually (e.g. Sonesson’s semiotic theory based on phenomenological distinctions), there are special forms of intentions in the case of memories (the storing of past perception and of the self, given in a manifold of appearances), imaginings and anticipations (intentionality accompanied by a sense of unreality – “into the mode of ‘as if’” (p. 103)). In this way, perception is seen as a basic form of intentionality that underlies meaning-making activity. According to the phenomenological point of view, mind and meanings are embedded in the world (contra both Cartesian internalism and Putnam’s causal externalism). Going further, Konderak takes a step back and outlines in broad terms the concept of the “Lifeworld” – the world as the subject experiences it. The Lifeworld, in its individual as well as its intersubjectively shared character, is crucial for cognitive semiotics,

because it is the source of meaningful phenomena at the level of consciousness, signs and language. Phenomenologists (e.g. R. Sokolowski) see it as (i) a foundation of intersubjectivity and (ii) inseparable from our body, in the sense that our body is “immersed in the world” (Gallagher, Zahavi) while also being the starting point for each and every science (M. Merleau-Ponty) (p. 120-121). As the examples of applied phenomenology, Konderak lists neurophenomenology (Varela), front-loading phenomenology (S. Gallagher), and heterophenomenology (D. Dennett – construed as a third-person approach to mental phenomena). In his conclusion to this chapter, Konderak notes that while he appreciates the role within cognitive semiotics of phenomenology as a disciplinary mode of inquiry, he at the same time finds the actual phenomenological content of our experience to demand an ever deeper interweaving with empirical studies.

This brings us to Part III (“Cognition”) (p. 133-203) of the work. Cognitive semiotics treats meaning-making as one of the cognitive processes, guided as it is by the ambition (according to Zlatev) of integrating methods developed in the various disciplines involved in cognitive science (in the sense of the “4E” paradigm of the latter that advocates treating cognition as embodied, embedded, enacted and extended) with methods developed in semiotics and the humanities. Part III consists of two chapters. In the first of these, “Cognitivist Approaches to Cognition”, Konderak presents standard cognitive science (construed as acknowledging the crucial role of internal representations in explanations of cognition, and as eliciting structures and mechanisms responsible for the activity of agents), initially looking briefly at three discoveries to reveal the kind of cognition that has come to be accepted within that area (namely, G. Miller’s idea of mind as an information processing system, Chomsky’s idea of language as algorithmic-procedures for the manipulation of symbols, and Harnish’s Test-Operate-Test-Exit organization of behaviour), before then presenting D. Maar’s theory of vision as a cognitive process starting with the retinal image. In the subsequent pages of this chapter he analyses the connectionist approach to cognitive science that has its roots in neurobiology (artificial neuronal networks), logic and psychology. Coming back to the main topic of his book, Konderak then asks whether the cognitivist approach to cognition is useful for research into meaning. In giving a positive answer to this question, Konderak differentiates once again between meaning-making at the first level (biological explanations), at the second level (consciousness and its two sub-levels: phenomenological and functional), at the third level (that of signs), and at the fourth (the process of making sense of linguistic utterances). After announcing that he will return to the issue of computational modelling in Part IV, Konderak presents “embodied dynamicism”: i.e. the role of cognition as an embodied activity, based on Gelder’s dynamical systems theory.

In Chapter 2 (“Beyond Cognitivism?”) of this part of the book, Konderak firstly outlines several objections directed towards standard cognitive science, presenting alternative approaches to the latter: these are the enactive approach (cognition as interaction, and Gibson’s ecological psychology), embodied cognition (embodiment in practice; six views of embodied cognition), and extended cognition (the extended approach to cognition as a “change in our conception of persons”). Konderak notes that the extended approach sees cognition as extended rather than just embedded in the world, and is supposed to describe the specific nature of cognitive processes. Coming to the question of the meaning-making mind, Konderak asserts that (i) the notion of an individual, persisting meaning-making subject is necessary for explanations of meaning, (ii) cognitive semioticians would tend to reject an extended interpretation of the body as just an instrument of cognition, and (iii) the extended approach to cognition can be incorporated in studies of meaning-making in some limited form (e.g. as M. Rowlands’ idea of an amalgamated mind which combines information processing, representations, embodiment, agency and consciousness). To recapitulate, then: in Part III Konderak confronts a cognitivist approach based crucially on the notions of representations, computation and functional analysis of cognition with the “4E” alternative. In his view, cognitive semiotics would benefit from a combination of these two different traditions of research into cognition.

Finally, we come to Part IV (“Semiosis”) (p. 207-276). In the first chapter of this, entitled “Towards a Semiotics for Cognitive Semiotics”, Konderak introduces semiotics as the study of signs. He considers the Stoics’ semiotics in terms of their notions of common and particular signs and of a semantic triangle. At the same time, he dedicates considerably more attention to Peircean semiotics, which in his opinion amounts to “the presentation of the semiotic underpinning of cognitive semiotics” (p. 214). Peircean semiotics is seen as (i) rejecting the Cartesian notion of mind, (ii) offering an explanation of the emergence and growth of human knowledge in terms of signs (as pictures, symptoms, words, sentences, books...), and (iii) involving two trichotomies. The first of these trichotomies, which is the original triad of the Peircean framework, consists of Firstness (the sign itself), Secondness (the reality of a sign), and Thirdness (the necessity of the sign), with semiosis construed as an interaction between Firstness, Secondness, Thirdness, and as a process of interpretation of a sign by means of other signs, where this brings us to the second one, involving signs as icons (similarity between the sign and object signified), as indexes (e.g. pointing, personal individual features – handwriting, natural symptoms, photographs), and as symbols (elements of natural language (words, sentences, etc.) interpreted as a set of all possible connections between objects). After presenting Peirce’s approach in the context of studies of the cognitive modelling of semiosis, Konderak outlines G. Sonesson’s interpretation of Peircean philosophy in terms of phenomenology. According to the latter, none of the main contemporary theories of signs (including neo-Peircean and neo-Saussurean ones) is satisfactory. Sonesson’s own view of semiotics (as regards signs) is influenced by Husserlian phenomenology, and is taken to be applicable in empirical studies.

In the second chapter of this part, “Cognitivism: Modeling Semiosis” (p. 243-276), Konderak elaborates cognitive modelling as a general method of research and presents an example of its application. Specifically, he interprets the functioning of a cognitive model in terms of the Peircean conception of semiosis as a process of meaning-making. To that purpose, he once again describes the various cognitive architectures (as a framework facilitating the design of cognitive models) and presents an example of cognitive modelling (the Harrison & Traftin ACT-R model with two chimpanzees, where one of them is seen by the other as “another agent” in various combinations of food-location, this constituting a step towards human embodied and embedded cognitivism). Konderak’s angle on this is that a cognitivist approach to meaning and meaning-making consists in simulating meaning-making processes by means of cognitive models designed within one of these cognitive architectures. To meet the expectations of 4E cognitive scientists (by taking into account the embodiedness of agents and their embeddedness in an environment), Konderak enriches the GLAiR cognitive architecture (*Grounded Layered Architecture with Integrated Reasoning* – a multi-layered cognitive architecture for embodied agents proceeding in real, virtual, or simulated environments containing other agents) with the “Snarpy” robotics module. Such an endorsement of the GLAiR architecture permits a modelling of both high-level cognitive capacities (abstract reasoning, planning) and low-level activities (sensing and acting on the basis of perceptions...). Konderak’s modelling of the processes of semiosis explores possibilities supplied by the GLAiR architecture, and due to technical limitations his version of the model must operate on linguistic signs. On pages 258-274 of his book, Konderak presents 10 illustrations showing semantic networks in an artificial agent (or system) understood as a system located within an environment that perceives and acts in that environment to achieve some goals. The system is capable of learning and of using its knowledge. Konderak characterizes semiotic systems as systems capable of relating two distinct phenomena (a sign vehicle and its object), by means of a third one: an interpretation. His example is the model’s being able to represent the proposition “Alice is a girl” (as in Lewis-Carroll’s *Through the Looking-Glass*] in the form of a structured node of a network: (i) the model creates a new node (M1), to represent an object called Alice; (ii) the network is extended with a new, inferred proposition (M7! (class person))(member(M1(LEX Alice))), to the effect that *an object named Alice (M1) is a person*; (iii) the model finds a corresponding node in its semantic

network representing Alice (M1) and attaches the new proposition *Alice is 7 years old* (M3); (iv) the network is partially interpreted in terms of the Peircean theory of signs, where the word (sign-vehicle – “Alice”) is Firstness, and its immediate object (M1) can be interpreted as Peircean Secondness. Together these form a dyadic relationship. Konderak mentions that his approach to modelling semiosis by computational means has been presented in his paper “On the evolution of thinking about semiosis: semiotics meets cognitive science” (2016), while his attempts to implement semiosis by means of the SNePS (Semantic Network Processing System)/GLAiR cognitive architecture have been summarized in his paper “On a cognitive model of semiosis” (2015), interpreting this in terms of Peircean symbols. Konderak argues that a cognitive architecture – such as the GLAIR/SNePS and artificial cognitive agents designed using such architectures – could be interpreted in terms of Peircean semiotics (e.g. p. 265 of his analysed book: Fig. 8.8: Firstness – sign vehicle; Secondness – immediate object; Thirdness – meaning /interpretation).

In “Concluding Remarks: Ways to Cognitive Semiotics Reconsidered” (p. 277-286), Konderak – speaking in particular about the future of cognitive semiotics – again directs our attention to the following: (i) the six features of cognitive semiotics, (ii) the Peircean theory of signs, in connection with which he emphasizes that the distinctive role of that theory stems from its focus on semiosis rather than signs, (iii) transdisciplinary studies in the area of cognitive semiotics on the one hand, and overspecialization on the other, (iv) computational modelling and its possible role in the reformulation of the basic assumption, i.e. the Semiotic Hierarchy hypothesis, and (v) functional aspects of meaning and the necessity of these being taken into account (especially at the level of consciousness).

Some 381 bibliographic entries appear on the pages 286-308, following by an Index of Names (p. 309-311) and an appropriately organized Index of Subjects (p. 313-319).

Some remarks on Piotr Konderak’s *Mind, Cognition, Semiosis: Ways to Cognitive Semiotics*.

1. In his book *Mind, Cognition, Semiosis: Ways to Cognitive Semiotics*, Konderak on the one hand reanalyses the older conceptions presented both in semiotics broadly conceived and in the philosophy of mind, and on the other provides new ideas that contribute to the further development of cognitive semiotics. The result is what he calls a “cognitivist view of semiosis” (p. 281). In its four parts, divided altogether into eight chapters, we have before our eyes a many-layered philosophical investigation interwoven with the description of the results of very specific scientific experiments. An accepted method within cognitive science is the application of artificial cognitive models to receive answers to some cognition-related questions. Konderak claims that it may also be a useful method for discovering properties of semiotic systems. The essential assumption is that processes of semiosis (in his case, processes in the sense of Peircean theory) could also be considered cognitive processes. For one thing, Konderak elaborates intentional acts, thereby conducting enactivistically phenomenological examinations of the *Lebenswelt* involved in semiotic activity; for another, he gives an account of his own computational system, based on the GLAiR architecture, as being capable of providing a constrained interpretation of sentences. In this way he summarizes his own contribution to the discipline, based as it is on computational modelling of semiotic processes. As was noted earlier, his analyses are oriented towards researchers representing the so-called Lund school of cognitive semiotics.

2. The cognitive semiotic theory framed in *Mind, Cognition, Semiosis: Ways to Cognitive Semiotics* is doubtless an “eclectic story” (p. 14, book cover) in the sense of being “multi-layered” – as many semiotic theories incline to be. According to Konderak, the potential of cognitive semiotics is remarkable – as a transdisciplinary area integrating our understanding of common life, mind, language and society. In addition, it promises to further the incorporation into one internally unified

field of its various contributing disciplines – above all linguistics, philosophy and psychology, separated as they are in inconsistent sub-disciplines that deal with their objects of examinations (e.g. the conscious mind and language) in correspondingly neurobiological, mental, computational (information-processing), social or cultural terms. But it is nevertheless still appropriate to ask once more: what is cognitive semiotics? A theory of semiosis? A school of semiotics? If it can make equivalent use of the investigations of Saussure, Jakobson, Peirce or Husserl (or anyone else), insofar as those investigations are appropriate for empirical experiments pointing the way to new insights into the nature and culture of human beings, in common with other meaning-seeking and meaning-making organisms, then it might perhaps be better framed as being a “cognitive approach to semiosis”, or “cognitive semiosis”.

3. Cognitive semiotics, as an eclectic story, should also be open to the intersection of semiotics with axiology: i.e. to another dimension beyond the overlapping of functionally and phenomenologically oriented spheres of concern. That is to say, it should be open to critically and ethically oriented dimensions too. In its transdisciplinarity, when striving to analyse signs in their ethical, aesthetic and pragmatic dimensions beyond the linguistic, epistemological and cognitive boundaries of semiotics, it should transcend pure descriptivism. Such a proposal is prompted by the assumption that the problem of meaning and of signs cannot be resolved in isolation from considerations pertaining to the place and value that meaning has in possible domains of human interest and purposeful engagement. A project conceived along such lines will go beyond the limits of cognitive semiotics (and equally beyond the field of semantics), and should help with “mending the gap between science and the humanities” (p. 286). Being concerned with problems of meaning in everyday life (the “Lifeworld”), and not just with reference to specialized areas, semiotics invites all of us, not just cognitivists or linguists, to ask such questions as “What does it mean?” or “What does it signify?” Such questions are not driven merely by a wish to interrogate linguistic meaning for its sake, but also by the value something has for us. As a result, the methods of cognitive semiotics promise to emerge as methods with implications for our ethical and educational order, important not only for interpersonal and social relationships but also when it comes to making responsible choices.

4. Artificial cognitive systems (e.g. the GLAiR/SNePS cognitive architecture) are occasionally specified as formal systems that manipulate symbols in virtue of the shapes of those symbols. For that reason, operations on symbols (creating, comparing, modifying and removing) are regarded as “syntactic” operations. But it should be stressed that without exception these operations have to be semantically interpretable. That benchmark of interpretability is a requirement for being a cognitive system: i.e. a system that can be understood as recognizing objects and colours, discriminating shapes, learning and remembering visual objects, drawing conclusions, planning activities, etc.

5. The connection between signs and values, or semiotics and axiology, is a field that, in my opinion, has not yet received due consideration, especially considering that the “earlier” Peirce was himself preoccupied by semiotics more in respect of its logico-cognitive views than in terms of its relation to axiological issues – i.e. to aesthetics or to ethics (as a normative science). In other words, he was not yet convinced about the links between logic, philosophy (as a branch of theoretical science) and ethics. We may assume that such an opinion was grounded in his category of Secondness, consisting of the actual facts present in the concrete world. Broadly speaking, his previous attitude to ethics evolved over the course of his philosophical activity, and he came to assert that logic should be based on ethics (cf. *Collected Papers of Charles Sanders Peirce*, (CP) 5.333, 8.158, 8.256). He now held that the only solid foundation for “ethics” would be one that relied on those facts of everyday life that no sceptical philosopher had ever yet truly called into question. Peirce ranked pure ethics (as opposed to the practical discipline of morality) as a

normative science – a positive science that asserts positive truths originating from categorical facts. Pure ethics is not intended to engage with practical questions, but rather with such questions as, e.g., “Are there moral properties?” or “Is there moral knowledge?” Peirce’s statements about pure ethics turn out to be connected with his category of Thirdness, as a category that includes everything that is of the nature of a law and that (i) includes ideas of generality and continuity, and (ii) belongs to the world of necessity. Pure ethics is related to the category of Thirdness because it is not tied up with individuality. This means that the meaning of ethical concepts could not pertain to just some individual entity, as it must relate to something that obtains generally. Given these premises of Peirce’s ethics, and in accordance with his pragmatism, his cognitive semiotics cannot be separated from our human social behaviour or the totality of our interests. For him, the problems of knowledge were necessarily entangled with orientations and issues of an evaluative kind, and consequently his so-called “cognitive semiotics” does seek to be mindful of the ethical-pragmatic or evaluative-operative dimension of signs. As a universal science of signs, cognitive semiotics must focus on all aspects of semiosis. It seems that the term “cognitive semiotics” could be appropriate for the tendency to push beyond the neutral descriptive and cognitive limits of semiotics (especially as a “science of signs”). However, the term “semiotics” will be adequate if understood as the general study of signs, and can “provide an appropriate account of meaning” (Konderak, p. 11). Cognitive semiotics – expanded to axiological issues – contributes to a global understanding of us human beings in the totality of our relations to ourselves, the world, and others (encompassing first-, second- and third-person methods). Therefore, with respect to “semiotics”, the term “cognitive semiotics” has the value of specifically emphasizing an orientation within studies of meaning that is not exclusively descriptive. From the viewpoint of cognitive science and its comprehensive theory of knowledge, cognitive semiotics can thus be expected to furnish evidence for the axiological dimension of sign and meaning processes – evidence that goes beyond just strictly descriptive aspects.

6. In Peirce’s view, the “science of Phenomenology” is the most fundamental of all the positive sciences (cf. CP 5.39). Konderak, with reference to G. Sonesson’s research (p. 231-233), remarks that Peirce and Husserl saw phenomenology as basic for communicative interaction, though in altogether different senses. Following and interpreting the arguments presented by Konderak we can, in my opinion, agree that Peirce’s recurrent triads-including-other-triads form of organisation (e.g. categories such as sign, object, interpretant; icon, index, symbol; rheme, dicisign, argument...) is a conclusion of his semiotics, which stands prior to any phenomenological inquiry (i.e. is prior to any successful observations). This is one of the unwarranted presuppositions of his phenomenology (or rather “phaneroscopy”): the a priori premise that all distributions of the (experienced) world come by threes is impossible to verify, and could be equally impossible to falsify. Husserl’s “pure phenomenology” likewise anticipates some very widespread categories that are introduced by his method. At the same time, in my opinion, it appears inconsistent with his overall view of phenomenology to assert in advance that such a widespread number of categories can be introduced. Rather, he stated that phenomenology should be free from any a priori assumptions. To my mind, one of the characteristics of phenomenological investigation, in line with Peirce, is the generalizing power of the mathematician (cf. CP 5.42), which is necessary if we are to arrive at generalisations from the information collected, by means of “resolute discrimination” (where it is the latter that enables the phenomenologist to focus his or her attention in a controlled way on the particular phenomenon under observation). Nevertheless the problematic issue here is that Peirce confirms on the one hand that mathematics occupies itself with the hypothetical states of things, and on the other that it should function as a prime example of exact thinking in philosophy. Unfortunately, without circularity, this cannot be an acceptable explanation for the demand either that phenomenology can take its first principle from mathematics, or that it is a science without presuppositions. At the same time, the mathematical fundamentals – which phenomenology takes

over for the sake of its own practice – really are indeed adaptable to phenomenology. In order to do justice to Peirce's philosophy, his conception of phenomenology alone cannot function as an adequate foundation for philosophical method without reference to the other areas of his philosophy: in particular, to normative science, metaphysics and the special sciences (physics, biology, etc., these being engaged in discovering new facts from the very same experience upon which philosophy works when seeking out universal phenomena). Phenomenology must be understood as only part of philosophy as a whole (as *an observational science and a science of discovery*), not as synonymous with it. My attempt to satisfy Peirce's stress on phenomenology at the same time shows a further intricacy within his philosophy: his rigorous theory of categories, and his rigorous classification of the sciences grounded in these categories. As a consequence of his hierarchical and tripartite theory of categories and classification of the sciences, he arrives at a predominantly hierarchical system that then calls for his understanding of phenomenology (which he classifies as the science of Firstness, cf. CP 5.121-124). Phenomenology is to be considered the first science to which philosophy must attend, prior even to logic and metaphysics.

7. The above comments and remarks (1-6) do not diminish the scientific value of the book under review, and should be seen as part of an ongoing scientific discussion whose concern is with how to understand, for instance, phenomenology as it figures in discussions of cognitive semantics.

II. Assessment of Dr Konderak's other scientific achievements / Opinia o innych osiągnięciach naukowych dra Konderaka

In his article "On the emergence of communication: an argument from robotics" (2017), Konderak outlines the minimal cognitive endowment necessary for the emergence of a communication system. His "The conscious semiotic mind" (2017) describes a specific understanding of cognitive semiotics as a discipline involving analyses of cognitive processes as semiotic processes (i.e. as requiring the use of signs). "On evolution on thinking about semiosis: semiotics meets cognitive science" (2016) presents aspects of the relationship between semiotics and cognitive science, leading to the conclusions that (i) at least some semiotic processes are also cognitive processes, and (ii) there exist possibilities for the adaptation of the methods of cognitive science to the investigation of sign systems and sign processes. In the paper "Between language and consciousness: linguistics qualia, awareness and cognitive models" (2016), Konderak brings clearly out – among others – two main points: (i) that the most important role in the phenomenon of language (and its explanations thereof) is played by psychological consciousness (awareness), and (ii) that although explaining the language faculty requires taking into account awareness, language is also inseparably connected with qualia.

III. Information concerning Dr Konderak's publications, conferences and organizational activity / Dane o publikacjach, konferencjach naukowych, pracy organizacyjnej dra Piotra Konderaka

3 scientific papers in scientific journals appearing in the Journal Citation Reports (JRC) List or the European Reference Index for Humanities List (ERIH); 5 scientific papers in international or national scientific journals; co-editor of the publication *Meaning, Mind and Communication. Explanations in Cognitive Semiotics* (with J. Zlatev and J. Sonesson); IH according to Scopus (1), according to Google Scholar (2); 17 papers/speeches at international and national conferences.

Organizational activity: chairman of the organizing committee of 2 international conferences, organizer of a cycle of four international seminars at the Institute of Philosophy at UMCS, member of the scientific committee of 6 international conferences.

IV. Konderak's teaching experience / Doświadczenie dydaktyczne dra Piotra Konderaka

Since gaining his doctorate Konderak has given lectures for students of cultural sciences (Logic and semiotics), students of philosophy (philosophy of mind), students of cognitive science (Introduction to Cognitive Science, Cognitive Semiotics, Methodology of Cognitive Science, Philosophy of Mind, Human Problem Solving, Natural Language Processing), and Erasmus students (Introduction to Cognitive Science, Philosophy of Mind).

V. Honours and awards

Konderak's doctoral thesis received an award from the Klemens-Szaniawski Society as one of the most outstanding PhD theses in the area of the humanities and the social sciences. He has also received the following: in 2012, the Medal of the National Education Commission for preparation of the study-program for studies of cognitive science; in 2014, the individual Rector's prize (2nd degree); in 2016, the individual Rector's prize (1st degree) for organization of the conference entitled "Second Conference of the International Association for Cognitive Semiotics, 20-22.VI.2016".

VI. Overall summary / Ogólne podsumowanie

Accepting the characterization of cognitive semiotics as a discipline combining methods and theories from cognitive science and semiotics in the context of investigations of the concept of meaning, Konderak emphasises the role of cognitive modelling in explaining the phenomenon of meaning. His contribution to cognitive semiotics – i.e. his "academic research achievement", in the sense of the abovementioned law (article 16, paragraph 2, of the bill...) – consists, inter alia, in the following: (i) the setting out of a series of broadly conceived theoretical considerations concerning the role of functionally oriented philosophy of mind and standard cognitive science; (ii) a deeply penetrating analysis of the possibilities for addressing problems raised by meaning-making activity, the emergence of communication, and language evolution, by means of computational modelling; (iii) a wide-ranging and proficient discussion of the Semiotic Hierarchy theoretical framework relating to the thesis that meaning transcends the areas of signs and language; (vi) more particularly, the creation of his own computational model (simulation) of meaning-making activity based on the Peircean theory of signs. This model is intended as an exemplification of a computational strategy that seeks to move closer to addressing the problems of cognitive semiotics. A thesis of Konderak relating to the future that emerges from his book is that the domain of potentially meaningful phenomena is continually enhanced as new technological developments unfold.

VII. Final evaluation of the application and concluding proposal / Końcowa ocena i postawienie wniosku

In reference to the above assessment, to the comments made, and to the candidate's recognized accomplishments as an individual, including his organizational activity, I believe that the overall scholarly achievements of Dr Piotr Konderak more than satisfy the requirements set for awarding the degree of *doktor habilitowany*, as specified in the relevant legal acts. In accordance with the latter, his academic achievements constitute "a significant contribution by the author to the development of a specific scientific or artistic discipline". I therefore recommend that the Habilitation Proceedings Commission and the Council of the Faculty of Philosophy and Sociology at the Maria Curie-Skłodowska University in Lublin formally decide to award Dr Piotr Konderak a

post-doctoral degree in the field of the social sciences, in the specific area of cognitive science and social communication.

W nawiązaniu do powyższej opinii, do poczynionych uwag oraz do uznania poszczególnych osiągnięć, uważam że dorobek naukowy dra Piotra Konderaka jego aktywność organizacyjna spełniają z nadmiarem wymogi stawiane przy nadawaniu stopnia doktora habilitowanego, a określonych w stosownych aktach prawnych. Przedstawione przez niego osiągnięcia naukowe stanowią – w myśl ww. ustawy – „znaczny wkład autora w rozwój określonej dyscypliny naukowej lub artystycznej”. W związku z tym rekomenduję Komisji Postępowania Habilitacyjnego i Radzie Wydziału Filozofii i Socjologii Uniwersytetu Marii Curie Skłodowskiej w Lublinie przyjęcie uchwały o nadaniu doktorowi Piotrowi Konderakowi stopnia naukowego doktora habilitowanego w dziedzinie nauk społecznych, dyscyplina – nauki o poznaniu i komunikacji społecznej.



Józef Bremer SJ