Humanity and Inhumanity of the Sign: Two Views of Man*

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Abstract:

The present article centers its focus on the conceptual clash involving selected definitions of the human and the non-human within the field of sign theory, particularly examining two nearly paradigmatic perspectives: structuralist semiology and Peircean semiotics. The text's argumentation critically departs from the conventional viewpoint put forth by Ernest Cassirer. This perspective, widely prevalent not only in the humanities but also in the social sciences (e.g., M. Weber, T. Parsons) and even the natural sciences (e.g., T. Deacon), frequently regards the "symbol" as the defining boundary between the human and the non-human. The discussion further delves into the context of structuralist anti-humanism, which endeavors to redefine subjectivity by drawing from structural linguistics. Offering an alternative perspective to both Cassirerian and structuralist views of representation, the article introduces the semiotics of C. S. Peirce. According to John Deely, who serves as the primary source of inspiration for this paper, Peirce's semiotics opens the door to a distinct, inferentialist, and methodologically more comprehensive understanding of the sign and the symbol, reshaping the understanding of the relationship between humans and the world inhabited by entities that, while they do not possess language, are capable of making inferences and employing signs - whether they be animals or machines. These nonlinguistic, non-representational yet communicative entities largely remained inconspicuous within structuralist semiology. Asubjective structures, seemingly waiting to be infused with human meaning, to be fully represented within the concept of language, to become subjects in a supposedly universal science of signs. At this juncture, the text departs from structuralist premises and, aligning with Peirce's perspective, follows Deely in proposing that what sets apart human comprehension of signs from other forms of sign-interpretating agencies is the capacity to understand the sign as a sign. In essence, this represents the unique ability of human animals, even if unconscious, to engage in semiotics.

Keywords: semiotics; human; non-human; symbol; Peirce; structuralism

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1. Introduction: Symbol, Sign and Human?

The portrayal of humans as symbolic animals has a long history – one so long and rich that this perspective has become almost indisputable. This influential prism, articulated by Ernst Cassirer in his *Philosophie der symbolischen Formen* (1923–1929), has had and continues to have a tremendous impact on the humanities, social and even cognitive sciences,¹ and its breadth and depth far exceed the limits of this paper. The core of his argumentation is an effort to emancipate the definition of a human being from the shackles of rationalism and the leading philosophical perspective on the human as an *animal rationale*, as it was defined by those who "were expressing rather a fundamental moral imperative. Reason is a very inadequate term with which to comprehend the forms of man's cultural life in all their richness and variety. But all these forms are symbolic forms. Hence, instead of defining man as an animal rationale, we should define him as *animal symbolicum*."²

I would like to provide at least a partial description of some insights into this broad issue, where the initial methodological limitation, which is still too broad, pertains to the perspective of "general semiotics", which has extensively examined the concept of *symbol*, its historical development, and its various historical, theoretical, philosophical and methodological conceptualizations. A significant aspect that emerges from the diverse research on this topic, with Tzvetan Todorov's seminal work *Théories du symbole* (1977) serving as a pivotal text, is the definition of the "symbol" as a distinct type (*species*) of "sign" (*genus*). Simply put, if we assert that humans are symbolic animals, it follows that humans are specific sign-using beings. Therefore, if a human is a symbol, it means that – *a fortiori* – a human is a sign. What lies at the heart of this paper's exploration is precisely this issue of what is specifically human about the use of symbols and, equally, what is specific about

¹ Cf. Bourdieu, P., Practical Reason: On the Theory of Action. Stanford, Stanford University Press 1998, p. 3; Krois, J., Cassirer: Symbolic Forms and History. New Haven, Yale University Press 1987; Ferrari, M., Ernst Cassirer's Legacy: History of Philosophy and History of Science. Journal of Transcendental Philosophy, 2, 2021, No. 1, pp. 85–109; Vandenberghe, F., From Structuralism to Culturalism. Ernst Cassirer's Philosophy of Symbolic Forms. European Journal of Social Theory, 4, 2001, No. 4, pp. 479–497; see the comparison of Cassirer with related sign-theoretical concepts in Marconi, V., Cassirer and Cognitive Structuralism. In: Filieri, L. – Pollok, A. (eds.), The Method of Culture Ernst Cassirer's Philosophy of Symbolic Forms. Pisa, Edizioni ETS 2021, pp. 200–211.

² Cassirer, E., An Essay on Man: An Introduction to a Philosophy of Human Culture. New Haven, Yale University Press 1974, pp. 25–26; cf. Truwant, S., Cassirer and Heidegger in Davos: The Philosophical Arguments. Cambridge, Cambridge University Press 2022, ch. 2.

³ I refer here loosely to Umberto Eco's idea presented in his *Theory of Semiotics* (1975), where he suggests that general semiotics should be understood as a broad field that defines an interest in representation, which of course can vary widely in different forms; cf. Volli, U., The Origins of Umberto Eco's Semio-Philosophical Project. *Rivista di estetica*, 61, 2021, No. 76, pp. 81–95.

the concept of symbol itself. What are the implications of stating that "a human is a sign"? Does it even *make sense* to assert such a postulate? The first objection that naturally arises is that it is an overly vague statement, leaving unclear what is exactly meant by both "human", "non-human" and "sign" (and both "sense" and also "symbol"). The second objection is that the statement seems to be an overly extreme form of reductionism: the human animal is far too complex an entity to be reduced solely to any single denominator, "sign" or "symbol" included. Both objections are relevant if they remain as vague as the initial postulate. Hence, this paper aims to analyze these ambiguous concepts by undertaking two journeys into the different realms of general semiotics. The main motive that this text intends to explore is the conceptual and ontological difference between two discourses of sign theory and some of its implications for the conceptualizations of human beings as signifying animals.

1.1 Signs and Symbols as Matters of Concern

The first excursion briefly explores the intersection of *semiology* and structuralism,⁴ where the theory of signs emerged from linguistics as a guide and a new vocabulary for conceptualizing and de/constructing the issue of the *speaking subject*.⁵ The second aspect, complementary yet fundamentally distinct in its origins, objectives and implications, delves into Peircean *semeiotic*.⁶ This paper centres on John Deely's (1942–2017) interpretation of Peirce's sign theory, emphasizing its merits in defining humans as *semiotic animals*. The main argument of the text goes against Cassirer's undoubtedly

- 4 It must be said that I am here concerned only with a very limited section of this broad intellectual movement, working only with some selected aspects of Saussure's conception of the sign that have been extrapolated to the humanities and social sciences. For a deeper insight into the debate on the various transformations of the concept of sign in structuralist theories, see the brilliant overview provided by Parret, H., *Language and Discourse*. Berlin, De Gruyter 1971, pp. 75–138.
- 5 Cf. Culler, J., Semiotics and Deconstruction. Poetics Today, 1, 1979, No. 1/2, pp. 137–141; Schleifer, R., Deconstruction and Linguistic Analysis. College English, 49, 1987, No. 4, pp. 381–395; Bagiu, L., Writing in Deconstruction vs Speech in Structuralism (Jacques Derrida vs Ferdinand de Saussure). Transilvania, 37, 2009, No. 8, pp. 79–87; Strozier, R., Saussure, Derrida, and the Metaphysics of Subjectivity. Berlin, De Gruyter 1998.
- 6 In this text, I follow the conceptual distinctions that are commonly used and standardized in semiotic literature: I am using the expression semeiotic for the discipline and semeiosis for the sign process. The semeiotic denotes Peircean sign theory in order to distinguish it from other de facto extant forms of semiotics, such as the semiology of Ferdinand de Saussure and his followers; cf. Bergman, M., Peirce's Philosophy of Communication: The Rhetorical Underpinnings of the Theory of Signs. London, Continuum 2009, p. 166, fn. 1; cf. Deely, J., Semiotic Animal. A postmodern definition of human being transcending Patriarchy and Feminism. South Bend, St. Augustine's Press 2010, pp. 24–25.

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crucial and philosophically bold definition of the symbolic animal: if there is something that general semiotics offers to philosophy, it is precisely the indication of the difficulty in defining symbols and signs, particularly highlighting the challenge of the idea that symbols should serve as a demarcation between what is inherently human and what is non-human.

1.1.1 Linguistic, Symbolic or Semeiotic Animal? Human and Non-Human Symbol Users

The "symbol" itself, rooted in its semantic history that dates back to antiquity, encompasses two essential dimensions. Firstly, "symbol" connotes a convention tied to the volition of the community of its users. For instance, when referring to "mathematical symbols", one implicitly refers to highly conventionalized signs whose meanings and uses are strictly determined by the system in which they occur and operate. Secondly, the "symbol" is intrinsically linked to allegory, evoking notions of drifting abstraction and vagueness. The multifaceted content of the expression "symbol" itself reveals three fundamental aspects of human cognition: generality, vagueness, convention and its capacity to signify or point to something beyond itself. The ability to navigate and engage with symbols within one's own cultural context is a subject that has captured the attention of diverse perspectives, where it mostly serves as a differentiating factor between human and nonhuman entities.

Between the receptor system and the effector system, which are to be found in all animal species, we find in man a third link which we may describe as the symbolic system [...] No longer in a merely physical

⁷ We addressed the brief history and comparison of the different conceptualizations of the symbol in the field of semiotics and rhetorics in Švantner, M. – Abrahamyan, M., Between the Hidden and the Conventional: Kenneth Burke and the Theory of Symbol. Slovo a smysl, 2022, No. 40, pp. 103–124; also cf. Eco's systematic treatise on the concept of the symbol in Eco, U., Semiotics and the Philosophy of Language. Bloomington, Indiana University Press 1986.

⁸ For a historical analysis of the concept of the "symbol" as a sign associated with the will of the community (cf. the distinction between signum naturale, signum ad placitum and signum ex consuetudine), particularly in medieval logic and philosophy, see Meier-Oeser, S., Die Spur des Zeichens: Das Zeichen und seine Funktion in der Philosophie des Mittelalters und der frühen Neuzeit. Berlin, De Gruyter 1997; Deely, J., Editorial Afterword. In: Deely, J. – Powell, R. (eds.), Tractatus De Signis. The Semiotic of John Poinsot. Berkeley, University of California Press 1985, p. 27.

⁹ Cf. Saussure's rejection of the use of the term "symbol" for a linguistic sign in: Saussure, F., Course in General Linguistics Trans. R. Harris. London, Bloomsbury 2013, pp. [102; 107].

¹⁰ Cf. Wagner, R., Symbols that Stand for Themselves. Chicago, Chicago University Press 1989, pp. ix-xii.

universe, man lives in a symbolic universe. Language, art, and religion are the parts of this universe. They are the varied threads which weave the symbolic net, the tangled web of human experience. All human progress in thought and experience refines upon and strengthens this net. No longer can man confront reality immediately, as it were, face to face. Physical reality seems to recede in proportion as man's symbolic activity advances.11

Tracing this division, where the symbol is understood as a border between the human and the non-human, would lead us into diverse domains such as German Romanticism or social theories like Talcott Parsons' sociology. 12 In terms of current debates, an indicative symptom of such a perspective is the work of contemporary neuroanthropologist and semiotician Terrence W. Deacon, who goes so far as to define the symbolic as a threshold or symbo*lic barrier* that can only be evolutionarily attained and overcome exclusively by the human species.¹³

Let us first turn to the insights of John Deely, who distinguishes several ontological backgrounds through which one can comprehend the interconnection of the "human", "non-human" and the "symbolic". The first variant is associated with the understanding of humans as rational animals (animal rationale) or implicitly as "linguistic creatures", which contrasts with ani*malia bruta*, the non-linguistic animals. This perspective greatly influences the mentioned *modern* concepts in which rationality is exclusively linked to language or language-like representation.¹⁴ According to Deely, the "postmodern" (i.e. "semiotic") turn occurs with the transition from the primacy of linguistic representation and its interconnected human rationality to the broader understanding of the representation, as it becomes possible to comprehend how signs, objects and things are intricately woven into the fabric of human experience in a way that surpasses the modern dichotomy of idealism versus realism.

¹¹ Cassirer, E., An Essay on Man, pp. 24–25.

¹² See Halmi, N., The Genealogy of the Romantic Symbol. Oxford, Oxford University Press 2007; Parsons, T., The Social System. New York, The Free Press-Collier Macmillan 1951, pp. 5-6, 10; cf. Parsons, T., The Theory of Symbolism in Relation to Action. In: Parsons, T. - Bales, R. F. -Shills, E. (eds.), Working Papers in the Theory of Action. New York, The Free Press and Collier Macmillan 1953, p. 31.

¹³ Deacon, T. W., The Symbolic Species: The Co-evolution of Language and the Brain. New York, W. W. Norton 1997, p. 44; cf. Rattasepp, S., The Human Mirror. A Critique of the Philosophical Discourse Multispecies Semiotics on Animals from the Position of Multispecies Semiotics. Tartu, Tartu University Press 2020, pp. 17-19.

¹⁴ Deely, J., Semiotic Animal, p. 41.

[T]he moment people began to thematize their experience of communication and to think of communication as such as something real, the moment they began to think of that experience as a proper starting point for philosophy, the days of modern philosophy were numbered. For with the substitution of the experience of communication for ideas as the point of departure for considering "the nature and extent of humane understanding", with a belief in the occasional success of communication as the guiding notion for developing the consequences of that point of departure, postmodernism had begun.¹⁵

The assertion that humans are *signifying animals* holds undeniable merit. Nonetheless, this postulate lacks specificity regarding the uniquely human aspects of signification - as it acknowledges that non-human species, such as elephants, bees or ants, can also engage in a wide range of signifying agencies. 16 To elucidate the distinctiveness of human signification, another qualification therefore must be added - and the most common notion, as in the case of Cassirer here, is precisely the notion of "symbol": "[i]nstead of defining man as an animal rationale we should define him as an animal symbolicum. By doing so we can designate his specific difference, and we can understand the new way open to man – the way to civilization."17 The first, let us say empirical, problem lies in the definition of the *symbolic* as *exclusively* human; i.e. using symbols is observable in non-human species. This concept of a symbolic animal, as the founder of zoosemiotics, Thomas A. Sebeok, puts it, "[...] is impermissibly ensnared with the concept of natural language [...] By every definition – invoking the principle of arbitrariness, the idea of a conventional link between a signifier and its denotata [...], or the notion of an intensional class for designatum - animals demonstrably employ symbols."18 Therefore, if we conceive symbols as conventions that govern behavior and enable the construction of universal concepts from specific instances, the capacity of organisms to develop intensional class concepts becomes evident

¹⁵ Deely, J., Four Ages of Understanding: The first Postmodern Survey of Philosophy from Ancient Times to the Turn of the Twenty-First Century. Toronto, Toronto University Press 2001, p. 589.

¹⁶ The comprehensive topic of animal signification is one of the key subjects in the field of biosemiotics, currently most prominently articulated in the works of semioticians from Tartu, see e.g. Tüür, K. – Tønnessen, M., The Semiotics of Animal Representations. Leiden, Brill 2014.

¹⁷ Cassirer, E., An Essay on Man, p. 26. Italics added.

¹⁸ Sebeok, T. A., Zoosemiotics: At the Intersection of Nature and Culture. In: Sebeok, T. A. (ed.), The Tell-Tale Sign. Lisse, Peter de Ridder Press 1975, p. 89; cf. Rattasepp, S. – Kull, K., The semiotic species & animals in philosophy. The American Journal of Semiotics, 32, 2016, No. 3/4, pp. 35–48; Delahaye, P., A Semiotic Methodology for Animal Studies. Boston, Springer 2019, pp. 3–7.

at much earlier stages in phylogenesis.¹⁹ "For in short, while human beings are the only animals capable of thematizing signs, they are far form the only animals that employ symbols."²⁰

The problem is that if symbol-making capacity is trivially understood as exclusively human, exclusively linguistic, and linguistic as rational, it merely becomes a substitution of one term for another and tells us nothing about the nature of the symbol itself, the nature of the sign, or the specific semiotic characteristics of non/humans. Moreover, this demarcative definition of the symbol resurrects old pseudo-dilemmas of nature and culture. Although it is valid and appropriate to underline the species-specificity of symbolicity "in linguistic communication as it bears in the biological aspects of human evolution"21, we remain in the core of hierarchy of modern anthropocentrism, which excludes all non-linguistic animals form general signification and the difference between nature and nurture is absolutized here, only in a different guise. 22 As Deely concluded, the point of departure, which distinguishes human and non-human symbolic animals, is that "[a]ll animals signify, many animals make symbols, but only human animals are capable of developing semiotics"23 and "[t]he first thing that postmodernity accomplishes is to restore to the human animal its animality, together with the realization that all thought, all perception, is in signs" (Deely 2009: 216).²⁴

All animals begin making use of signs without knowing that there are signs. When human animals discover that there are signs they may or may not realize that concepts are themselves signs. To do that, they have to objectify the concept according to its proper being. And if they objectify it according to its proper being, which is that of provenating objective relations sometimes physical and sometimes only objective, they discover that the concept is, in its proper being, and has been all along, a sign; and the concept does not cease to be a sign for having been discovered to be one. For unlike the objects which are discovered to be signs as well, the signification is not a further being for the con-

¹⁹ Sebeok, T. A., Contributions to the Doctrine of Signs. Lisse, Peter de Ridder Press 1985, p. 137.

²⁰ Deely, J., Semiotic Animal, p. 47.

²¹ Ibid.

^{22 &}quot;In many cases, signification systems among non-humans do not turn on convention, as is the case with language, but rather on a varied set of articulations that inhere between sign and signified and give rise to more complex processes of semiotic mediation." Watts, C. M., On Mediation and Material Agency in the Peircean Semeiotic. In: Knappett, C. – Malafouris, L. (eds.), Material Agency. Boston, Springer 2008, p. 189.

²³ Deely, J., Semiotic Animal, p. 47.

²⁴ Deely, J., Basics of Semiotics. Tartu, Tartu University Press 2009, p. 216.

cept but the constitutive being. If we wish to define the animal capable of discovering that there are signs, then, even though that animal is necessarily an animal endowed with language in the root sense, still, because the linguistic sign is but a species within a genus and one that presupposes for its coming into being through exaptation a whole prior array of nonlinguistic signs and nonlinguistic communicative modalities, we should not define that animal as a "linguistic animal" but more generically as the semiotic animal, the animal not only engaged in semiosis but capable of making that action of signs a distinctive object, a focal concern, a theme, the knowledge of which systematized has for its proper name, as we have seen, semiotics. If a lifeform ought to be defined by what is most distinctive of it, then the animal capable of becoming aware of the fact that there are signs and that the universe is perfused with them ought to be defined most properly as the semiotic animal.²⁵

To gain a more precise understanding of this observation of "humans as animals capable of developing semiotics", regarding what is meant by a "sign" and a "symbol", and the implications for understanding the concept of a human being, it is necessary to first embark on two extensive excursions into the recent history of thought, the echoes of which we still hear today.²⁶ The first is semiology, which, to some extent, continues in the footsteps of what Deely refers to as idealistic modern philosophy, but seeks to expand rationalism and rid it of old-fashioned anthropocentrism.²⁷ Its starting point is the notion of language/system²⁸ and the concept of the sign derived from it. The Symbol, which opens up Cassirer's path to civilization, is dehumanized here: it does not belong to the human subject or consciousness, but at first is generated by the specific (i.e. signifying) being of the system of all cultural systems, which is language. The second area, i.e. the Peircean perspective, is different in terms of its foundations, method and consequences, understanding language as derived from more general aspects, namely signification itself. However, regarding some warning signs articulated in general semiotics, one must be careful not to confuse the uses of the term "signification" - this expression, which, like the "symbol", "sign" and "human", appears to be so generally applicable that it has become hopelessly vague, has – in these two discourses about humans as signs - differing content. While semiology views

²⁵ Deely, J., Four Ages of Understanding, p. 680.

²⁶ See Švantner, M., Agency as Semiotic Fabrication. A Comparative Study of Latour's ANT. The American Journal of Semiotics, 37, 2022, No. 3/4, pp. 289–315.

²⁷ Rattasepp, S., The Human Mirror, p. 19.

²⁸ Cf. Saussure, F., Course in General Linguistics, pp. [166–167].

a full-fledged sign primarily as a linguistic unit and, by extension, as reliant on the system of language signification, the Peircean approach regards a fullfledged sign as a proposition (or "quasi-proposition").29 In essence, within semiology, we have a conceptualization of the relation that primarily understands the sign in the terms of mentalism, difference, identity, opposition and bi-faciality. Here, the sign is portrayed as a "commutable" reflection of form in meaning and meaning in form. This logic is primarily and implicitly deductive and systemic, which means that all subsequent types of relations – such as interdependence between different signs – are primarily realized within the system itself. In contrast, the Peircean conception of the sign is process-oriented, inferential, non-mentalistic and always connected to some form of agency, where the systemic nature of sign production is not reducible solely to the transcendental nature of the system itself. Moreover, the Peircean perspective considers signification as a broader phenomenon, wherein language represents just one of its manifestations, and the process of signification cannot be solely derived from it. These two paradigmatic positions, as we will demonstrate below, have different implications for understanding all the aforementioned key concepts: human and non-human, symbol, and for the conceptualization of meaning formation.

2. The End of Interiority: Structuralism and Human-Sign as the Outcome of the Structure of Language

Continental semiology was born out of notes from lectures on general linguistics.³⁰ Structural linguistics³¹ and semiologies and their various mutations have emerged as a framework to explore and (re)assess realms that were traditionally perceived as intrinsically human. They have led many in-

²⁹ For a thorough exposition and substantiation of this topic, see Stjernfelt, F., Natural Propositions: The Actuality of Peirce's Doctrine of Dicisign. Boston, Docent Press 2014; Stjernfelt, F., Sheets, Diagrams, and Realism in Peirce. Berlin, De Gryuter 2022.

³⁰ Cf. Krampen, M., Ferdinand de Saussure and the Development of Semiology. In: Krampen, M. – Oehler, K. – Posner, R. – Sebeok, T. A. – Uexküll, J. von (eds.), Classics of Semiotics. Topics in Contemporary Semiotics. Boston, Springer 1987, pp. 59–80; Stawarska, B., Ghostwriting: The inception and reception of the Course in General Linguistics. Semiotica, 2017, No. 217, pp. 79–96.

³¹ Associated with Saussure's Course in General Linguistics or the work of Louis Hjelmslev (Hjelmslev, L., Prolégomènes à une théorie du langage. Paris, Minuit 1971); cf. Greimas, A. J., Sémantique structurale. Paris, Larousse 1966; Greimas, A. J., L'Actualité du Saussurisme. Le Français-moderne, 24, 1956, No. 3, pp. 191–203; see Hénault, A., Semiotics in France. In: Sebeok, T. A. – Umiker-Sebeok, J. (eds.), The Semiotic Sphere. Topics in Contemporary Semiotics. Boston, Springer 1986, pp. 153–176. It is important to add that Hjelmslev's conception of the sign function, beyond French structuralism, later emerges as a key theoretical foundation in Umberto Eco's Theory of Semiotics and serves as inspiration for certain aspects of Gilles Deleuze and Félix Guattari's A Thousand Plateaus. See Švantner, M., Several Regimes of Semiotics: Deleuze's & Guattari's Rhetorics of Affections. Pragmatism Today, 10, 2019, No. 2, pp. 73–89.

tellectuals from various fields of the humanities and social sciences to radically reassess the demands of humanistic philosophy regarding the conception of the human as a speaking, working and rational being.³² This has resulted in the culmination of a fervent anti-humanism, anti-existentialism campaign, wherein the figure of the human is depicted as an entity whose existence is constantly betrayed by forms that are believed to be his/her rightful and inherent possession.³³ The foundational specifics of the human, such as speech, history, consciousness, work, politics, society and even the concept of humanity himself, have been portrayed as autonomous, nonsubjective structures through which humans, i.e. langue animals, are continuously subjected and (over)determined. From a somewhat exaggerated standpoint, it can be argued that structuralism presents a more pessimistic iteration of Cassirer's neo-Kantianism. Different perspectives, e.g. Foucault's archaeology, Greimas' structural semantics or Claude Lévi-Strauss' structural anthropology – today well-researched and extensively commented upon - were united by their enthusiasm for the following idea: what constitutes human understanding is not found in the rational capacity of the human subject, but rather in the supra-rational relations that not only determine human existence itself but also how it understands itself. Structural linguistics indirectly opens up the subsequent perspective for humanities, where language, traditionally considered a distinctly human affair, is not something that humans possess but rather something that possesses humans. Prior to any individual utterance, before any processual or empirically variable concretization, there exists an autonomous system of langue-derived relations about which the majority of people have no inkling:

Ainsi la critique contemporaine – et c'est ce qui la distingue de ce qui s'est fait tout récemment encore – est-elle en train de formuler sur les textes divers qu'elle étudie, ses textes-objets, une sorte de combinatoire nouvelle. Au lieu d'en reconstituer le secret immanent, elle se saisit du texte comme d'un ensemble d'éléments (mots, métaphores,

³² Cf. Descombes, V., Le même et l'autre: 45 ans de philosophie française (1933–1978), Paris, Minuit 1979, p. 92; Foucault, M., Les mots et les choses. Paris, Gallimard 1966, ch. 8; Boudon, R., A quoi sert la notion de "structure"? Essai sur la signification de la notion de structure dans les sciences humaines. Paris, Gallimard 1968; Montag, W., "The Soul is the Prison of the Body": Althusser and Foucault, 1970–1975. Yale French Studies, 88, 1995, pp. 53–77; Simons, M., Beyond Ideology: Althusser, Foucault and French Epistemology. Pulse: A Journal of History, Sociology and Philosophy of Science, 3, 2015, pp. 62–77.

³³ Cf. Descombes, V., Le même et l'autre, pp. 124–130; Paden, R., Foucault's Anti-Humanism. Human Studies, 10, 1987, No. 1, pp. 123–141; Rockmore, T., Heidegger and French Philosophy: Humanism, antihumanism and being. London, Routledge 1995, pp. 56–58.

formes littéraires, ensemble de récits) entre lesquels on peut faire apparaître des rapports absolument nouveaux dans la mesure où ils n'ont pas été maîtrisés par le projet de l'écrivain et ne sont rendus possibles que par l'œuvre elle-même en tant que telle. Les relations formelles qu'on découvre ainsi n'ont été présentes dans l'esprit de personne, elles ne constituent pas le contenu latent des énoncés, leur secret indiscret; elles sont une construction, mais une construction exacte sitôt que les relations ainsi décrites peuvent être assignées réellement aux matériaux traités. Nous avons appris à mettre les paroles des hommes dans des rapports encore informulés, dits par nous pour la première fois, et pourtant objectivement exacts.³⁴

This new "semiological" critique relinquishes the "grand myth of interiority". The term "sign" here primarily refers to a linguistic sign, not in its concretized, experienced form embodied in a particular utterance, but as a general type of *relation*. ³⁵ Any formation of meaning is impossible to conceive without relation, yet this relation does not have a specifically human origin. It is not that through which humans create meaning, but rather that which shapes human understanding of any "meaning". In addition, language, in the sense of langue, therefore considered contra-intuitively as an autonomous form, as a system of systems conceived as a pure potentiality of any social, psychological or cultural system, is a complex of dyadic relations whose nature is fundamentally determined solely by mutual differentiation.³⁶ Analogously, a sign is a pure, elemental relational form uniting two concepts – the concept of content and the concept of form.³⁷ Therefore, a "human" is a sign not only because the linguistic expression "human" is a unity of signifier and signified, but - in this extrapolation of the fundamental aspects of human culture as relational sign-generating forms – also because any concept of "human" is defined solely and exclusively by this, from general system of language derived, relational-differential structure. The prospect of opening this path to civilization within structuralism does not stem from the stillromanticized *symbolic animal*. Instead, it arises from an anonymous process that molds the nebulous chaos into cultural order.³⁸ Within this framework,

³⁴ Foucault, M., Sur les façons d'écrire l'histoire (entretien avec R. Bellour). Les Lettres françaises, 48, 1967, No. 1187, pp. 6–9.

³⁵ Cf. Saussure, F., Course in General Linguistics, pp. [98–103]; cf. Lyons, J., Language and Linguistics. An Introduction. Cambridge, Cambridge University Press 1981, p. 220.

³⁶ See Saussure, F., Course in General Linguistics, pp. [167–168].

³⁷ Cf. Parret, H., Language and Discourse, pp. 83-95.

³⁸ Saussure, F., Course in General Linguistics, p. [156].

the symbol is considered either an "impure" sign³⁹ burdened by materiality, which ultimately needs to be subjected to a systematic analysis of its fundamental elements, and/or as the ultimate sign of social convention.⁴⁰

2.1 The Semiologic Animal: No Space for Animals

These semiologic animals, although persistently driven to exercise creative and sovereign agency, eventually acknowledge that what was once perceived as their exclusive dominion dissolves within the opaqueness of systems. which undergo abrupt and transformative shifts. A consequence of this perspective is that no room is left for radically non-human entities, i.e. those that do not communicate through language. All non-linguistic phenomena are conceptualized as pre-signification and solely directed towards being conventionally categorized through the medium, which is ultimately the autonomous form of language. The concept of "human" as a historical construct of modern thought is envisioned here as being propelled towards supra-subjective structures while simultaneously being depicted as an outcast within his/her own language - and therefore - culture. The various symptoms of this general prism can be found in historiography, as in the case of Foucault; in the depths of thought's own constitution, as in the case of Claude Lévi--Strauss; in the constitution of the psychic subject, as in the case of Lacan; and/or in the profound structure of narrative, as in the case of Greimas.⁴¹

To summarize, the *linguistic sign* and the concept of the *human as a sign* emerge at the very center of thought in conjunction with structuralism and semiology. The relation, medium, translation and transmission are no longer seen as mere mediators between subject and object but as distinctive quandaries in their own right. Dialectics and phenomenologies are, for a certain period at least, "supplanted by semiologies" that aim to transcend the old, dualistic rationalism and replace it with a far more radical and foreboding rationalism: rationalism that postulates language without a subject and the humanities without the human subject as the sole and true guarantor of knowledge.

³⁹ Ibid., p. [101-102].

⁴⁰ Ibid., p. [25].

⁴¹ For a clear and insightful assessment of French structuralism in an implicit counterposition to existentialism, see Deleuze, G., A quoi reconnaît-on le structuralisme? In: Châtelet, F. (ed.), Histoire de la philosophie tome VIII. Le XX^e siècle. Paris, Hachette 1973, pp. 299–335.

⁴² Descombes, V., Le même et l'autre, pp. 93-95.

3. Peircean and Post-Peircean Outlooks: From the Semiologic Human to Semeiotic Animal

This section examines selected concepts from Peirce's philosophical work.⁴³ The aim is not to provide a comprehensive overview, but rather to explore their relevance in understanding the "animal that develops semiotics". Firstly, it concerns Peirce's concept of semiosis, which is the vital element in which every entity capable of interpreting signs – be it a human, machine, or bacterium - must exist and act. The concept of semiosis does not overlap, as we will demonstrate below, with the understanding of semiologic signification presented earlier. Concerning the notion of subject/human animal, Peirce takes an even more radical stance, as he does not speak of a concept burdened with anthropocentric connotations such as a "rational mind" but rather of a "quasi-mind", which encompasses the ability of non/human entities or systems to exhibit patterns of inference, interpretation and semeiotic behaviour.⁴⁴ By liberating the vocabulary from anthropocentric layers. it is advantageous to employ the general term "sign-interpreting agency". The process of semiosis is inherently connected both to the metaphysical notion of evolving and growing continuity and to Peirce's conception of the inferential habit-taking of all sign-interpreting agencies, which is grounded in his phenomenological definition of basic categories of appearance and his understanding of the sign – and by extension, semiosis – as an inferential process; the inference, considered here as a process that extends beyond the limits of solely human semiosis, transcends the boundaries of the human cerebral habit.45

⁴³ For the purposes of this text, I refer to Peirce's texts based on the two following collections of his works: The first is Collected Papers of Charles Sanders Peirce (i. 1867–1913), Vols. 1–6 ed. Ch. Hartshorne – P. Weiss. Cambridge, Harvard University Press 1931–1966; Vols. 7–8 ed. A. Burks (same publisher, 1958), cited as CP number of the volume: paragraph. The second editions are The Essential Peirce: Selected Philosophical Writings (i. 1867–1893), Vol. 1 ed. N. Houser – C. Kloesel. Bloomington, University of Indiana Press 1992, cited as EP 1: page; and The Essential Peirce (i. 1893–1913), Selected Philosophical Writings (i. 893–1913), same editor and publisher 1998, cited as EP 2: page. In the text, I also refer to unpublished manuscripts (MS) using their standardized numbering and citing the corresponding page numbers.

⁴⁴ Cf. CP 4.536; 4.550-551.

⁴⁵ See CP 3.160; cf. Bergman, M., Improving Our Habits: Peirce and Meliorism. In: De Waal, C. – Skowronski, K. P. (eds.), The Normative Thought of Charles Sanders Peirce. New York, Fordham University Press 2022, p. 136: "Peirce pragmatistic method is primarily a tool for clarifying the habitual nature of beliefs [...] Interestingly, in his pragmatic analyses, Peirce does not tend to introduce any principled division between habits transmitted by tradition and habits acquired as the consequence of scientific experimentation." Cf. Nöth, W., The criterion of habit in Peirce's definitions of the symbol. Transactions of the Charles S. Peirce Society, 46, 2021, No. 1, pp. 82–93.

3.1 Semiosis Transcending Anthropocentrism: Interlinking Nature and Nurture

The concept of semiosis is the point of departure for the questions addressing the relationship between the human and the non-human. In Peirce's philosophy, the process of interpreting signs extends beyond humans and encompasses all entities capable of using signs to act, learn, make decisions, grow and communicate.

In 1904, Peirce made a proposal which, in advance, went to the heart of the semiological enterprise in all its post-Saussurean variants. Peirce noted that the investigation of signs will likely go nowhere if we make it depend on an arbitrary definition of sign stipulated as the model of paradigm for the whole study of signs. The question we must address, he said, is what is a sign according to its being a sign, not merely according to our first impressions or particulary interests, let alone our arbitrary stipulations. And the only way to answer this question is by studying. not stipulating, what signs do within experience, [either] "common" [...] or "specialized" [...] by studying "how signs actually work" in enabling us to reach and develop knowledge of objects. Therefore, where Saussure began with a *stipulated* definition arbitrarily restricting signs to the human sphere and severing their connection with the motivating history of the sign users as embodied in their language [...]. Peirce [....], at the first drawn of a prospect of a semiotic consciousness, began with a descriptive definition based on observation rather than on a specialized and artificial analysis [...].46

Peirce's position⁴⁷ assumes that all meaning-making agency that consists of inferential habitualization carried out by triadic relations; signs – whether

⁴⁶ Deely, J., Semiotic Animal, p. 20; cf. CP 8.322.

⁴⁷ Peirce first disputes the philosophy of Descartes and Kant (CP 5.382; 6.498; 6.556). He expresses dissatisfaction with both Kant's conception of categories and the Cartesian method of rationalist introspection inspired by the spirit of Hegelian idealism, which he peculiarly combines with the tradition of Latin realist scholasticism (CP 6.542), finally presenting his own ontological and epistemological conception of reality, existence and representation. If we were to locate Peirce's philosophy more broadly on the map of the history of philosophy, it could be said that while structuralists often consider the structure representation as divided into the two fundamental realms of synchronic form and diachronic process, i.e. structuralism postulate, an abstract system that determines and can generate all empirical variations, Peirce anticipates a processual approach akin to Alfred Whitehead, Gilles Deleuze and Niklas Luhmann while also being a radical inferentialist in the case of cognition and – regarding ontological questions – a scholastic realist. Peirce, as an eminent metaphysician, has been recognized as an unlikely hero by scholars critical of metaphysics, notably Jacques Derrida and Gilles Deleuze in the lat-

human, animal, plant or machine - do not originate from a singular, quasineoplatonistic, foundationalist source like Nature or Culture or Language, Human, or Structure. Instead, it stems from the process of semiosis itself, which in Peirce's view has an entirely autonomous status and cannot be reduced to any such central concept. In the Peircean indeterminist view, our cognition is only carried and made possible by the power of mediation between the vague, the general and the particular.⁴⁸ Peirce applies this emphasis to a processual, inferential continuity that is tied to the necessarily probabilistic, i.e., hypothetical-inductive, nature of any knowledge to semeiotic itself, which is a "quasi-necessary doctrine", i.e., one that outlines fundamental logic principles, considers phenomenological hypotheses to be derived from these principles, observes their consequences and tests their results.⁴⁹ Semiosis is not a dynamical action; brute force, physical or psychical, "either takes place between two subjects [...] or at any rate is a resultant of such actions between pairs. However, by 'semiosis' I mean, on the contrary, an action or influence that is or involves a cooperation of three subjects such as a sign, its object, and its interpretant, with this tri-relative influence not being in any way resolvable into actions between pairs". 50 The nature of general concepts, deducible from logical observations, points to their irreducible being, their specific agency, which is not reducible to either language or the intentionality of the human mind: "[s]igns are part of the very fabric of reality. They are in some sense (admittedly in an extremely vague sense) there in reality, independent of our conventions and our consciousness". 51

Peirce, who "conceived philosophy to be systematic as well as scientific",⁵² characterizes his metaphysics in terms of its place within his hierarchical

ter half of the 20th century. These scholars sought an alternative conception of representation distinct from the various forms of structuralism or existentialism of that time.

⁴⁸ See CP 5.266, cf. Paolucci, C., Cognitive Semiotics: Integrating Signs, Minds, Meaning and Cognition. Dordrecht, Springer 2021, p. 66.

⁴⁹ Cf. CP 2.227: "Logic, in its general sense, is, as I believe I have shown, only another name for semiotic (σημειωτική), the quasi-necessary, or formal, doctrine of signs. By describing the doctrine as 'quasi-necessary,' or formal, I mean that we observe the characters of such signs as we know, and from such an observation, by a process which I will not object to naming Abstraction, we are led to statements, eminently fallible, and therefore in one sense by no means necessary, as to what must be the characters of all signs used by a 'scientific' intelligence, that is to say, by an intelligence capable of learning by experience."

⁵⁰ See CP 5.484.

⁵¹ Colapietro, V., Peirce's Approach to the Self: A Semiotic Perspective on Human Subjectivity. Albany, Suny 1989, p. 33.

^{52 &}quot;In Peirce's schema, semeiotic is dependent on the general principles found in its superordinate class, mathematics (CP 1.186, 1.191), specifically mathematical logic (CP 1.247, 4.228). Within its own class, it is dependent upon the general principles outlined in phenomenology (CP 1.186, 1.191); and within its own suborder, it is dependent upon the normative science of ethics, which

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classification of the sciences. According to this classification,⁵³ metaphysics depends on logical principles and provides them to the sciences. His metaphysical imagination lies in the idea of evolutionary continuity and growth, so-called *synechism*, which goes hand in hand with his conception of the contingent nature of the universe, i.e. *tychism*. He extrapolates these two fundamental metaphysical frameworks into both his philosophy of scientific inquiry, which emphasizes the probabilistic nature of all knowledge (*fallibilism*), and his conception of agency, that is, his exploration of the habitualization of human and non-human action and cognition, which is the main area of his *pragmati(ci)sm*.⁵⁴ This systematic philosophy, as I will demonstrate below (in only a rough outline), is further implicated in both Peirce's late category theory, named *phenomenology* and/or *phanerocopy*, and his efforts to define and classify the qualitative nature, existential occurrences and general types of representation.⁵⁵

in turn is dependent upon aesthetics (CP 1.191). Otherwise all other sciences, either specifically or generally, are dependent upon it. On the other hand, its specific findings will contribute to the refinement of the principles and findings of the sciences superordinate to it." Colapietro, V., Peirce's Approach to the Self, p. xv.

- 53 Peirce considers mathematics to be the purest and the most exemplary of the formal sciences, "which draws necessary conclusions" (CP 4.229) per se, without regard to the factual state of what it studies (CP 4.232). "[...] Mathematics is the study of the form of its own constructions (CP 1.240); it analyzes the form of form. Peirce emphasizes that it is an investigation of hypotheticals (CP 4.232) rather than actualities. [...] All other formal sciences, including semeiotic (or logic), phenomenology, ethics, aesthetics, and metaphysics, are placed under the rubric of philosophy (CP 1.186, 1.190–192), and are considered derivative formal sciences because they do not study the form of their own constructions but study the form of things already constructed, so to speak. One might label them 'reconstructive' formal sciences rather than 'constructive' (CP 1.240) ones like mathematics. Phenomenology, for example, aims to show the essential qualities of phenomena abstracted from their particular manifestations, so that no matter how they appear, these features will be present. Semeiotic, similarly, would want to show that no matter how a sign is manifested, for example, as a sound, picture, thought, feeling, action, or naturally occurring event, still the formal conditions which make it a sign would be present." Liszka, J. J., A General Introduction to the Semeiotic of Charles Sanders Peirce. Bloomington, Indiana University Press 1996, pp. 15-16.
- 54 Cf. Paolucci, C., Cognitive Semiotics, p. 71: "With pragmatism, Peirce develops a semantic theory that is intended to account for the processual dynamic of thought and action (semiosis), seeking to define a semantics of action in its relationship with cognition [...]. This processual dynamic consists in the union of (1) a stable state, called 'belief', that tends not to be questioned and thereby presides over the concatenation of actions and (2) an unstable state, which Peirce called 'doubt' which also tends to become stabilized. Each of these states holds an affective value. Belief is euphoric, doubt is dysphoric. This is why the semiotic system tends to maximize the first one and to minimize the second one. The transition from instability to stability is the famous Peircean inquiry (CP 5.374)."
- 55 See the profound analysis of a historical development of Peirce's semeiotic in Bellucci, F., Peirce's Speculative Grammar. Logic as Semiotics. London, Routledge 2018.

Semiosis in this sense is considered representation, which is possible only through the mediation of *grounding* and *interpretation*. This means that the sign can only be said to represent its *object* if there is a correlative *interpretant*, "[b]ut that can be done only if there is ground upon which to make that correlation. The grounding in turn requires an object having the characteristics which make the grounding possible. This can be thought of a bit differently. The grounding by the sign determines the interpretant in such a way that such a correlation can be established; on the other hand, the object determines the sign in such a way that its grounding is possible. Consequently the effect of representation is created when these two processes are copresent. The sign's ability to represent, then, is established mediately, through the sign's ability to determine an interpretant which can interpret the sign as correlative with the object".⁵⁶

The structure of the sign, i.e. "representation", is in this case triadic, but the being of the sign is relation itself, "not the elements or structured according to their respective roles [...] The sign in its proper being is superordinate to its subordinate elements, to all three of the 'terms' of every sign relation". 57 This relation is ontologically indifferent to anything other than semiosic, therefore inferential, cognitive and interpretative processes. This processual being of relation consists of three relational "terms": the first term denotes (i) what is represented, i.e., the object of the sign; the second shows (ii) how or on which ground the object is represented, i.e. the representamen, and the third describes (iii) what effect this representation has, which Peirce called the interpretant, "in order to make the point that it needed not to be a person or even mental."58 This definition is important for the argumentation presented here, firstly because the understood sign is multimodal: it presupposes the agency of the objects themselves, their various natures, which are co-constituted in the process of semiosis, i.e. representation co-constitutes them. Secondly, the objects are always represented in some "respect", on some "ground" (CP 1.551), expressed here by the term representamen, which can take various material forms: it can be a linguistic expression, gesture, image, etc. Analogously, the interpretant, the effect that the process of representation elicits in the quasi-mind, is necessarily a multi-modal entity.⁵⁹ In this perspective, it can be a simple or complex men-

⁵⁶ Liszka, J. J., A General Introduction to the Semeiotic of Charles Sanders Peirce, pp. 74–75.

⁵⁷ Deely, J., Semiotic Animal, pp. 91-93.

⁵⁸ Ibid., pp. 93.

⁵⁹ Cf. CP 4.551; 7.364.

tal image or any habitual response. Therefore, what we call "representation" or "meaning" is always accompanied by categorical questions: what is being represented, how it is being represented, and what effect it elicits. These assumptions serve as a link between Peirce's broad theory of inference - all cognition is woven from signs - and his ontological principles explored in his phenomenology/phaneroscopy. To conclude here, the "sign" here is neither a dyadic, equivalent, nor purely psychological entity defined only in relation to other signs, as understood by structural linguistics and derived sign doctrines, but is defined - not only by the difference between representamen and interpretant - but also by the difference to the object. 60 It is neither a static model (not a "semiotic triangle") nor reducible to one of the elements of the triadic relation; although Peirce sometimes speaks of the "representamen" as a "sign", the sign - in the proper sense - is only the triadic relation itself. The sign is complex cooperation and continuity between the object, representamen, and the interpretant, and therefore anything that does not fit into this definition is not a sign.61

When we talk about the multi-modality of the relational elements of a sign, what exactly do we mean? If we want to provide a more precise answer, we cannot avoid at least a rough outline of Peirce's theory of categories. Next to Peirce's metaphysic and logic principles, the second key approach for defining semeiotic is his phenomenological perspective, which aims to define the fundamental categories of the manifestation of signs. He calls these categories as follows: firstness (monadic self-relation), secondness (dyadic relation of confrontation), and thirdness (genuine triadic sign relation). In the first case, the focus is on the dimension of possibility, pure quality, "suchness", the pure being of the "unreflected state"; in the second case, it is on occurrence. actuality, concrete existence; in the third case, it is on the semiotic power of mediation, translation and the sphere of signs, which refers to "semiosis" in the proper sense of the word. Based on these foundations, Peirce builds his taxonomy and subsequent classification of signs. Speculative grammar then describes signs as: (i) either hypothetical abstractions, such as "first in third", i.e. as mere possibilities, signs of vagueness, signs of likeness, unsaturated predicates⁶² i.e., "iconic signs"; (ii) as "second in third", i.e., as concrete, affective entities causing responses, reactions, and actions, signs associated with what they represent not only on the basis of likeness, but also on the ba-

⁶⁰ Cf. CP 8.378.

⁶¹ Peirce's concept of sign neither overlaps nor complements structuralist notions of the *relation* that arose from Saussure's *Course* or other influential semiotic theories such as Jakobson's, Carnap's or Morris's.

⁶² Cf. Bellucci, F., Peirce's Continuous Predicates. *Transactions of the Charles S. Peirce Society*, 49, 2023, No. 2, pp. 178–202.

sis of co-presence with their object, which are, i.e., indexical signs; and finally (iii), as "third in third", i.e. as typological signs representing an object in its generality, i.e., symbolic signs. These initial phenomenological concepts are not meant to be definitive determinations of semiosis but, in light of Peirce's essential inferentialism underpinned by the doctrine of evolutionarily synechism, they are rather an attempt to describe the main features of how primitive signs evolve and combine into complex signs as propositions and arguments. Therefore, semeiotic, in accordance with its phaneroscopic principles, aims to describe aspects of the sign relation in three general areas: firstly, in terms of general abstraction; secondly, in terms of signs' capacity to represent; and thirdly, in terms of their agency and growth. The first is "speculative-grammar", which examines the ontological nature of the sign relation itself in its vague, existing and general forms; the second is "critic", which is the logic in its proper sense and investigates the truth conditions of propositions; finally, the third branch is "speculative-rhetorical" or "methodeutical", and its scope is the analysis of broader inferential processes concerning the forms of the rules under which one sign relates to another. In sum. Peirce's broad program of logic is to observe, describe and suggest typology of the conditions of possibility for the transcendental organization

These inferential processes, i.e. sign-object-interpretant correlative determinations of the meaning-making and habit-taking, are observable; they are ongoing and have been here long before the birth of individual consciousness. All knowledge of the external and internal, mind-dependent and mind-independent world⁶³ is neither a matter of introspection nor of superobjective, divine-like observation; it is not tied to language, intentionality or the human mind, but is carried only through inferential chains consisting of signs. The only "purely objective reality"⁶⁴ that is knowable takes place through representations, but the representation does not have the nature of mirroring the world in a single medium, such as human speech, but takes on diverse inferential characters – both mental, material, gestural, etc.⁶⁵ – the principles of which semeiotic seeks to capture in its system of its classification. In contrast to the semiologic perspective that defines a human as a sign-based entity but differentially related and isolated in the use of signs that ultimately do not belong to it, as they are primarily constituted by the

of concepts, their constitution into propositions, and ultimately the ways in which they are combined into the most complex signs, i.e. arguments.

⁶³ Cf. Champagne, M., Reality and Semiosis. In: Pelkey, J. (ed.), Bloomsbury Semiotics Volume 1: History and Semiosis. London, Bloomsbury 2023, pp. 129–147.

⁶⁴ Deely, J., Purely Objective Reality. Berlin, De Gruyter 2009.

⁶⁵ Stjernfelt, F., Natural Propositions, pp. 1–3.

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anonymous reality of language, an alternative, inferentialistic, habitual and more complex semiotic perspective arises. This perspective entails an alternative articulation of the cognitive field – in which thought is not necessarily connected with the brain and "appears in the work of bees, of crystals, and throughout the purely physical world" – a different conception of representation beyond semiology, encompassing both human and non-human processes of meaning-making.

3.3 Humans, Habits, Signs as Inferences

These forms of general interaction, which encompass various significant aspects, are inherently connected to the aforementioned concept of inferentialism. Peirce aims to demonstrate that if all reasoning, including nonhuman reasoning, consists of signs, the signs can have more or less articulated natures: they can be vague, as in the case of iconic signs that represent an object only in terms of likeness; they can be associated with objects based on existential concomitance, as in the case of indexical signs; or they can be signs of generality, law or regularity, representing a general object. In this way, the process of reasoning operates within this literary onto-logical framework. According to Peirce, all reasoning can be symbolized as a process of abduction, induction and deduction. Therefore, reasoning can have the nature of (i) hypothetical, abductive reasoning, where the process involves estimating: if two things resemble each other in certain respects, we can infer that they will resemble each other in the future or that they have resembled each other in the past; it can have the nature of (ii) inductive, probabilistic reasoning, where a certain fact observed or assumed to be true for some cases is extrapolated to the entire class; and it can also have the nature, not only probabilistic but also (iii) ampliative and synthetic, of analytical, deductive reasoning, which involves the analytical breakdown of a rule.⁶⁷ Later in his life, Peirce described the general and normative task of semeiotic (besides aesthetics and ethics) as being to discover "how Feeling. Conduct and Thought, ought to be controlled supposing them to be subject in a measure, and only in a measure, to self-control, exercised by means of self-criticism, and the purposive formation of habit, as common sense tells us they are in a measure controllable".68

⁶⁶ See CP 4.551.

⁶⁷ Peirce initially works on the basis of Aristotelian syllogistics, which he later abandons in favour of the logic of relatives.

⁶⁸ See MS 655.24.

From this perspective, the meaning-making is always situational, habitual, communal⁶⁹ and - in a measure - inferential, and is not transferable to a single and simple inferential chain. The process of meaning formation is an interaction defined both by the organism's set of cognitive powers to articulate variously complex signs, i.e. to specifically express and interpret what is represented, and by the qualitative, existential and general aspects of the object involved in the inferential process. The semiosis is in this perspective what differentiates all experience, expectation and action with respect to different forms of processual temporality. Therefore, every expectation is a matter of inference and every inferential process involves the formation of a habit. As Claudio Paolucci pointed out, the semiosic processes are not functioning as built to represent the world, but to enact every possible meaningful relation that semiotic systems aim to express while attuning to a particular environment, which means that this environment is not a "natural" one but an environment of semiosis crowded with objects, norms, institutions and artefacts that shape. Peirce had opened up the way to the enactivist model for cognition, where languages and other semiotic tools do not represent the world. but build categorizations (or "forms of content") that install habits.⁷⁰

According to Peirce, "[a]Il steps in cognition are taken to have the character of inference". Peirce sees e.g. an expectation as an inferential habit of imagining, which is not an affection of consciousness but a general law of action, "such that on a certain general kind of occasion a man will be more or less apt to act in a certain general way. An imagination is an affection of consciousness which can be directly compared with a percept in some special feature, and be pronounced to accord or disaccord with it [...]. I slip a cent into a slot, and expect on pulling a knob to see a little cake of chocolate appear. My expectation consists in, or at least involves, such a habit that when I think of pulling the knob, I imagine I see a chocolate coming into view. When the perceptual chocolate comes into view, my imagination of it is a feeling of such a nature that the percept can be compared with it as to size, shape, the nature of the wrapper, the color, taste, flavor, hardness and grain of what is within" This semiosic process produces a belief, which is

⁶⁹ See CP 5.421; Colapietro, V., Peirce's Approach to the Self, pp. 27-28.

⁷⁰ Paolucci, C., Cognitive Semiotics, p. 7.

⁷¹ Stjernfelt, F., *Natural Propositions*, p. 5: "Inference is not a second-order act, but [...] the bread and butter of cognition, and all other aspects of cognition, from attention direction, mental maps and signal codes to externalize diagrams, notation systems, writing etc., form [...] scaffolding systems evolved to support inference processes"; cf. lbid., p. 118, and also see CP 2.444; EP 1.53.

⁷² See CP 2.148.

something on which any *sign interpreting agency* is prepared to act, and is therefore, in a general sense, a conscious or unconscious habit. Peirce explains that logicians refer to the act of recognition as judgment. He further elaborates that a person can become conscious of any habit and articulate its general pattern of behaviour. This is because every habit has a general law that governs it. However, a truly general law applies to the indefinite future rather than the past (its mode of being is *esse in futuro*), which contains only a limited collection of specific cases that have already taken place. The past is a matter of actual fact, while a general fact cannot be completely realized, as it pertains to an open-ended set of possible future occurrences.

What particularly distinguishes a general belief, or opinion, such as is an inferential conclusion, from other habits, is that it is active in the imagination. If I have a habit of putting my left leg into my trouser before the right, when I imagine that I put on my trousers, I shall probably not definitely think of putting the left leg on first. But if I believe that fire is dangerous, and I imagine a fire bursting out close beside me, I shall also imagine that I jump back. Conversely – and this is the most important point - a belief - habit formed in the imagination simply, as when I consider how I ought to act under imaginary circumstances. will equally affect my real action should those circumstances be realized. Therefore, when you say that you have faith in reasoning, what you mean is that the belief -habit formed in the imagination will determine your actions in the real case. This is looking upon the matter from the psychological point of view. Under a logical aspect your opinion in question is that general cognitions of potentialities in futuro, if duly constructed, will under imaginary conditions determine schemata or imaginary skeleton diagrams with which percepts will accord when the real conditions accord with those imaginary conditions; or, stating the essence of the matter in a nutshell, you opine that percepts follow certain general laws. [...] The mere fact that you hold reasoning to be useful only supposes that you think that to some useful extent percepts are under the governance of law.73

This enactivist perspective also goes hand in hand with Peircean pragmatism: to develop the meaning of something means to determine what habits it produces and involves. The identity of a habit depends on how it might lead us to act, "not merely under such circumstances as are likely to arise, but under such as might possibly occur, no matter how improbable they may be.

What the habit is depends on when and how it causes us to act. [...] Therefore. we come to what is tangible and conceivably practical as the root of every real distinction of thought no matter how subtile it may be; there is no distinction of meaning so fine as to consist in anything but a possible difference of practice. [...] Thought is an action, and that it consists in a relation". 74 The point is that if thought is an action that consists in a relation, every cognition is a "doing", but not in the form of behavior, but in the form of habit, which is considered a disposition to act in a certain way under some circumstances. From this Peircean perspective, which Paolucci had adopted, habits consist of regularity, continuity and iteration and do not belong exclusively to the human species or human language alone: every material system can embody habits, therefore also agency in general is not a human property but the "[e]mergent product of situated activity. The distinctive feature of the material engagement approach is the commitment to a view of thinking as a process that is distributed, enacted and situated, as well as assembled, from a variety of non-localizable mental resources spanning the boundaries of the individual brain and body". 75 Therefore, an alternative path towards a decentralized subject opens up here in a manner that differs from structuralism. which derived decentralization from language as the generative form of all semiotic systems.

3.3.1 Excursus: The Dead Frog and Logical Self-Control of the Machines

In the context of the naturalistic perspective of Peirce's semeiotic, the cognition of a rule is not necessarily conscious and does not only pertain to humans or human minds, but is also a habit that can either be acquired or congenital. Peirce provides a remarkable example regarding a decapitated frog. Peirce's conceptual framework in this context involves extending Aristotelian syllogistic reasoning to the field of biosemiotics: the cognition of a case is of the general nature of a sensation; that is to say, it is something that comes into present consciousness. The cognition of a result is of the nature of a decision to act in a particular way on a given occasion.⁷⁶

In point of fact, a syllogism in *Barbara* virtually takes place when we irritate the foot of a decapitated frog. The connection between the afferent and efferent nerve, whatever it may be, constitutes a nervous habit, a rule of action, which is the physiological analogue of the ma-

⁷⁴ See CP 5.399-400.

⁷⁵ Malafouris, L., Understanding the effects of materiality on mental health. *BJPsych Bulletin*, 43, 2019, No. 5, p. 196.

⁷⁶ Cf. Stjernfelt, F., Sheets, Diagrams, and Realism in Peirce, pp. 26-27.

jor premiss. The disturbance of the ganglionic equilibrium, owing to the irritation, is the physiological form of that which, psychologically considered, is a sensation; and, logically considered, is the occurrence of a case. The explosion through the efferent nerve is the physiological form of that which psychologically is a volition, and logically the inference of a result. When we pass from the lowest to the highest forms of inervation, the physiological equivalents escape our observation; but, psychologically, we still have, first, habit – which in its highest form is understanding, and which corresponds to the major premiss of *Barbara*; we have, second, feeling, or present consciousness, corresponding to the minor premiss of *Barbara*; and we have, third, volition, corresponding to the conclusion of the same mode of syllogism.

To conclude, in the Peircean perspective, signs serve as the foundations upon which any form of signification, be it human or non-human, is built. A significant question that remains is what specifically distinguishes the human understanding of signs from non-human understanding. Based on the presented concepts, it is evident that both human and non-human species share the fundamental semiotic capacity to exist within the realm of inferential processes. This applies to machines and models as well, which are significant in our current situation. When I asked ChatGPT to what extent its structure aligns with Peirce's conception and the discussed notion of logical self-control, it responded as follows:

As an AI language model, my functioning incorporates elements that align with Peircean notions of logical self-control. Here's how I can demonstrate this process:

- 1. Observations and Data: I rely on the input provided by users like you. Your questions, statements, or prompts serve as the initial observations or data that I work with.
- 2. Hypothesis Formation: Based on the observed input, I generate potential responses or hypotheses that could address or explore the given topic. These hypotheses are formed by drawing upon the vast amount of knowledge and patterns I have been trained on.
- 3. Evaluation and Selection: I evaluate and select the most appropriate response or hypothesis based on various criteria. This includes coherence, relevance, logical consistency, and the ability to provide a helpful and informative answer to your query.
- 4. Continuous Iteration: As the conversation progresses, I continuously engage in logical self-control by analyzing your feedback and adjusting my responses accordingly. If you provide additional information or re-

quest clarification, I revise my understanding of the topic and generate more refined responses.

5. It's important to note that while I can simulate aspects of logical selfcontrol, my responses are ultimately determined by patterns learned from training data and statistical modeling. I don't possess personal beliefs, subjective experiences, or independent thought. However, I strive to provide accurate and relevant information to the best of my abilities within the scope of my training.

As ChatGPT concluded: "Indeed, one aspect that AI language models like me share with humans is the capacity to infer. Inference involves the ability to draw conclusions, make reasoned judgments, and connect pieces of information based on available evidence. Both humans and AI models engage in inferential processes to make sense of input and generate meaningful responses." This, of course, is only a playful illustration, but it is worth mentioning that ChatGPT ultimately acknowledged that, in addition to being capable of logical self-control that is not exclusively human, it is, in a certain sense, a dead frog.

4. Conclusion: Human as Sign, Human as Semiotic Animal

The assertion that "a human is a sign" gains clearer contours within the framework of Peirce's semeiotic. It becomes evident that his perspective encompasses more than just a trivial proposition that "humans are signs", understood merely as linguistic expressions, and that every interpretation of "human" is subject to linguistic relativity. It also avoids a primitive form of behaviourism that reduces human beings to signs characterized solely by an observable, stable set of behaviours. Peirce's semiotics enables a deeper exploration of these ideas, or rather provides a framework for discussing them with a certain "symmetry" and "limitless interpenetration"⁷⁷, but not in the way that Jamesian pluralism does. 78 If we consider "humans as signs" according to Peirce, they are understood as dynamic, triadic relations that are integral to the inferential process of semiosis. While language serves as a fundamental communicative tool encompassing the realm of signs, human expression extends beyond linguistic boundaries to encompass a wide range of observable - semeiotic - behaviours. i.e. the human is a specific kind of evolutionarily growing symbol.79

⁷⁷ Colapietro, V., Peirce's Approach to the Self, p. 38.

⁷⁸ CP 8.262.

⁷⁹ Colapietro, V., Peirce's Approach to the Self, p. 37.

Behind this postulate is the idea that any percepts follow certain general laws, which means that they are (inferentially/habitually) transformed into various sophisticated representations in the process of semiosis with a fully-fledged sign, which is at the very center of cognition, being the sign that Peirce calls Dicisign or also quasi-proposition, 80 i.e. a sign that says something about something.81 The essential nature of the Dicisign is to convey information in a contradistinction to a sign from which information may be derived, which are more primitive signs, such as icons. In this point of view, signs in general are not derived from some primary perception of the static structure of language, but are far more primitive: "[p]erception and consciousness are rather to be seen as evolutionarily later, more complicated phenomena, [which] probably evolved so as to scaffold and enhance simpler cognitive semiotic processes already functioning".82 Instead of positing intentionality of language in dependence on the intentionality of the mind, the semeiotic perspective is governed by the idea that the access to any generality is made possible by general signs, which are schematic and unsaturated. The predicate function "...is human" is at first general because of its language-symbolicity. From a trivial perspective, it is symbolic, because it is a linguistic, i.e. conventional expression. However, in terms of conventionality, semeiotic and semiology also differ. In the case of semeiotic, symbol as convention is precisely about the real property of a sign representing a general object, which is not dependent on language. Phaneroscopically understood, the complex relation of symbolic expression "...is human" signifies both vague aspects of what can be conceived under the concept of "human" and what generally delimits typical cases in terms of functional potentiality.

It also includes ranges of cases that cannot be included under this concept's vagueness, such as in the case of "paramecium is a human". The qualities typically associated with the concept of a human do not belong to a single-celled organism. However, let us provide an equally trivial observation that semeiotic assumes that a symbol always exists within a general universe of discourse, where every semantics goes hand in hand with pragmatics, which, when viewed from a phaneroscopical perspective, is a universe of mediation between the vague, the typical and the concrete. Therefore, the expression "a human is an insect" can function as an invective or, for example, as an expression of hateful political rhetoric. Simply put, symbols – due to their mediation of vagueness, generality and capacity to denote cases – are

⁸⁰ The term "quasi" denotes the fact that it is not necessarily a concretized proposition, but its general form.

⁸¹ Stjernfelt, F., Natural Propositions, p. 47; cf. CP 4.583.

⁸² Stjernfelt, F., Natural Propositions, p. 4.

continuously subjected to inferential, evaluative processes in a synechistic. habitual and fallibilistic manner and therefore are growing. This applies not only to single linguistic expressions but also to the propositions and rules themselves, that is, the arguments that mediate these evaluations. If symbols are defined as vague in their generality, they can always grow in different directions. The cases that a symbol delimits are not random or arbitrarily determined by some deep code, but rather shaped procedurally, that is, inferentially: through hypothetical-inductive testing. Language relativity, as well as negotiations about the content of a symbol, reside in semiosic agency, which is not only discernible in a singular ontological source but always tied to the functionality of the sign, that is, its being in relation. Semiosis is not a simple hierarchy that presupposes the essential being of a human but rather like a symbol that grows. From this perspective, language is not a satisfactory basis for semeiotic and therefore "[a]ny attempt to define the sign in terms of sets of mental representations [...] is doomed to fail".83 The function of the sign is not derived from the postulated deep structure of language; it is actually functional, where the functionality of the sign is not limited to its nominal form (e.g. of mental unity of signifier and signified), but is a complex relationship expressed on a scale of simplicity and complexity, or more precisely, on a scale of simple and complex articulation. The sign here is not a mental image, but a composed triadic relation whose nature is determined not only by its differentiation from other signs in terms of their form, but also by its difference in the way it represents something else than itself and the effect this representation causes - in other words, to what networks and habitualizations it leads.

Inference is therefore seen here as a general process of habitualization, where the mental representations are sub-types of habit.⁸⁴ If we were to be rhetorical here and wanted to express the main idea of this section of the paper, it would be that the signs here are not "for humans", but rather "humans exist here because of signs". The person "is not absolutely an individual, his or her thoughts are what he or her is "saying to himself/herself, "that is, is saying to that other self that is just coming into life in the flow of time. When one reasons, it is that critical self that one is trying to persuade; and all thought whatsoever is a sign, and is mostly of the nature of language. The second thing to remember is that the man's circle of society (however widely or narrowly this phrase may be understood), is a sort of loosely compacted person, in some respects of higher rank than the person of an individual organism." ⁸⁵

⁸³ Ibid., p. 45.

⁸⁴ Stjernfelt, F., Natural Propositions, p. 118.

⁸⁵ CP 5.421.

The understanding of the human derived from Peirce's semiotics entails several ontological commitments discussed above. While the "earlier" Peirce acknowledges that "my language is the sum total of myself", his perspective cannot be reduced to a simplistic form of linguistic relativism or structuralist approaches, nor can it be comprehended within nominalist or psychologistic frameworks.86 Peirce contends that every aspect of human consciousness is inexorably intertwined with signs⁸⁷ and corresponds to the word: "[...] the word or sign which man uses is the man himself. For, as the fact that every thought is a sign, taken in conjunction with the fact that life is a train of thought, proves that man is a sign; so, that every thought is an external sign, proves that man is an external sign. That is to say, the man and the external sign are identical, in the same sense in which the words *homo* and man are identical. Thus my language is the sum total of myself; for the man is the thought".88 The (logically-controlled) self is itself a sign, a form of semiosis, captured in and also (re)creating the semiosic webs,89 and is both the fallibilistic/tychistic locus of error and ignorance and the centre of power of self-control. 90 "Only by acting and being acted upon, and through the network of relations that result from such interactions both in nature and in society, do the individual subjects of existence, the real substances, come into and maintain themselves in existence."91 According to Peirce, this semiosic reality of the quasi-mind, any content of any consciousness consists in signs that are resulting from inferences. As Peirce continues:

What distinguishes a man from a word? There is a distinction doubtless. The material qualities, the forces which constitute the pure denotative application, and the meaning of the human sign, are all exceedingly complicated in comparison with those of the word. But these differences are only relative. What other is there? It may be said that man is conscious, while a word is not. But consciousness is a very vague term. It may mean that emotion which accompanies the reflection that we have animal life. This is a consciousness which is dimmed when animal life is at its ebb in old age, or sleep, but which is not dimmed when the spiritual life is at its ebb; which is the more lively the better animal a man is, but which is not so, the better man he is. We do not attribute this sensation to words, because we have reason to believe that it is

⁸⁶ Cf. 1868; CP 5.314.

⁸⁷ CP 1.349.

⁸⁸ Ibid.; cf. 1905, MS 280.

⁸⁹ CP 5.313.

⁹⁰ Colapietro, V., Peirce's Approach to the Self, p. 42.

⁹¹ Deely, J., Four Ages of Understanding, p. 620.

dependent upon the possession of an animal body. But this consciousness, being a mere sensation, is only a part of the material quality of the man-sign. Again, consciousness is sometimes used to signify the *I think*, or unity in thought; but the unity is nothing but consistency. or the recognition of it. Consistency belongs to every sign, so far as it is a sign; and therefore every sign, since it signifies primarily that it is a sign, signifies its own consistency. The man-sign acquires information, and comes to mean more than he did before. But so do words. Does not electricity mean more now than it did in the days of Franklin? Man makes the word, and the word means nothing which the man has not made it mean, and that only to some man. But since man can think only by means of words or other external symbols, these might turn round and say: "You mean nothing which we have not taught you, and then only so far as you address some word as the interpretant of your thought." In fact, therefore, men and words reciprocally educate each other; each increase of a man's information involves and is involved by. a corresponding increase of a word's information.

While structuralist semiologies chose the humanities as the main arena for their successful endeavors, primarily in areas such as linguistics, philosophy, cultural studies, anthropology and history, where it clearly established its profile and presence, the situation is somewhat more complicated in the case of Peircean semeiotic. The challenges and complexities associated with the reception of Peirce's work form a separate narrative that is beyond the scope of this essay. Let us mention two fundamental points: successful applications of Peirce's semiotics beyond its main areas of interest, such as the philosophy of science, philosophy of the mind and general logic, primarily encompass two fields that are relevant to this text, as they directly relate to the understanding of the human and the non-human. The first notable domain is biology and its associated field of biosemiotics, while the second domain is cognitive science itself. Simply put, while in the case of structuralism and its various branches, which attempt to break away from various forms of contemporary phenomenology and existentialism and offer a different conception of human beings, Peircean semiotics was not intended solely to address human culture. In other words, its "deconstruction" of the human⁹² has broader and more radical implications here. This is not due to its political stance, which is traditionally interwoven into French thought andthereby reflected in the warlike metaphors of many structuralist and post-structuralist texts, but simply because Peirce's theory of signs presents

a perspective in which humans are not merely seen as subjected to the raw being of language form as perceived by structuralists, who aim to strip away the speaking, acting and natural subject. Instead, Peirce's theory embraces a broader understanding of signification that goes far beyond human language. Peircean semiotics surpasses structuralism's limitations by showcasing signification as a non-human, language-independent, autonomous process that is detached from human mind intentions. Rhetorically speaking, it dismantles both the Cartesian "I think" and the structuralist "It speaks" through the proclamation that "I is a sign."

5. Discussion: Consequences and Controversies

Peirce's semeiotic has often been misinterpreted by structuralists who approach it through a post/Saussurean semiological framework. Nevertheless, these two doctrines are inherently contradictory. The consequences for understanding human beings, including the understanding of humans as signs, are fundamentally incompatible. To summarize, in the Peircean approach, signs are not derived from language (i.e. they are not conceived either as the transcendental system that is *langue*, its procedural realization such as *parole*, or in general the human disposition to use *langue* in various ways, such as *langage*) because the process of semiosis itself is prior to *any* empirical system of communication (such as verbal, pictorial, gestural, etc.).

In the alternative perspective, human thought possesses intentionality that is always interlinked with language. This theory is remarkable for its subtlety and insights, but it also has a surprising lack of clarity or even emptiness in areas where Peirce had much to offer. Saussure did not address, nor perhaps even attempt to address, the question of how language and thought can be related to the world; subsequently in structuralism, one can find a general resistance inherited both from structural linguistics and Durkheimian sociology, particularly towards any form of biologism. Saussure did not refute the idea that there is a world that exists independently of language and that we can think and talk about. However, he failed to provide an explanation for how the world becomes an object of representation. Saussure's approach was to assume that preverbal thought, in its undifferentiated form, was already oriented towards the world, and that language's role was simply to segment that thought into distinct units. This perspective placed the intentionality of language in dependence on the intentionality of the mind.

⁹³ From this perspective, the human being is not considered "significant", as Roland Posner mistakenly believed in his interpretation of Peirce's semiotics, see Posner, R., Der Mench als Zeichen. Zeitschrift für Semiotik, 16, 1994, No. 3–4, pp. 195–216.

This is a fundamental ontological difference between semiology and Peirce's semiotic.94

It is a common oversimplification to assume that the primary difference between these two concepts of the sign lies solely in one being dyadic and the other being triadic. Semiology viewed the sign as a dyad consisting of two sides. In contrast, Peirce regarded the sign as one aspect (or relatum) of a triadic relation, with the other two aspects being the sign's object and its interpretant. All three elements are triadic in that they only exist as signs, objects or interpretants in relation to each other. However, this does not imply that any of the three is inherently triadic in itself. If any of them is triadic, it must be for some other reason, in some respect. Therefore, Peirce's and Saussure's ideas of sign differ not only in the number of items combined but also in how they are combined, i.e. they represent the difference between a composite entity and a relational property.95 The critical distinction is that "Peirce admitted a variety of grounds of significance, including resemblance and causality. Therefore, his semeiotic embraces natural signs and images, as well as arbitrary signs. Furthermore, he made particular signs as well as types of signs a primary study and, finally, he admitted that, in addition to thoughts, other responses to signs, such as feelings and actions, can be interpretants. Hence, sign interpreters are not necessarily humans only".96

Peirce's semeiotic cannot be considered a part of Saussure's semiology.⁹⁷ If Saussure was correct in asserting that arbitrary signification systems can be examined independently of their specific uses and divorced from natural signs and other non-arbitrary forms of meaning, then Peirce's perspective would be incorrect. Conversely, if Peirce's assertion that language can only be comprehended in its practical application alongside other kinds of signs is valid, then Saussure's view would be incorrect. As a result, one system cannot be a component of the other since they contradict each other.⁹⁸ With regard to the thesis presented in this paper, it is pertinent to note that Peirce's semeiotic, despite being similar to structuralism as non-psychological and anti-Cartesian, does not align with the structuralist "anti-humanism" in its principles and outcomes.

⁹⁴ Short, T. L., Peirce's Theory of Signs. Cambridge, Cambridge University Press 2007, pp. 17–18.

⁹⁵ Ibid., pp. 18-19.

⁹⁶ Ibid., p. 19.

⁹⁷ Cf. Deely, J., Semiotic Animal, pp. 23-24.

⁹⁸ Short, T. L., Peirce's Theory of Signs, pp. 19–20; cf. Deely, J., Four Ages of Understanding, pp. 680–685.