

Daniel Dennett: intentionality system.

An interpretation of intentional strategy

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Abstract

In this article, we show some of the meanings in which Daniel Dennett uses the term intentionality, in an attempt to establish to it the quality of key concept for understanding the mind, namely consciousness. By analyzing the American thinker's ideas, we consider that in all of them an intentionality system can be identified, which includes the approaches and different names that he dedicates to this concept. Qualitative differences in the discourse about intentionality can open the way of the approach of intentionality from an evolutionary perspective, indicating the changes over time. The intentionality system is a proposal for understanding Dennett's thinking in a coherent paradigm.

Keywords: *intentionality, intentional attitude, intentional strategy, intentional system, intentionality system, consciousness, mind, mind development.*

Introduction

We show in this article some of the meanings in which Daniel Dennett uses the term *intentionality*, in the attempt of establishing it the quality key concept for understanding the mind, namely consciousness. Reported to the American thinker, we believe that a intentionality system can be identified, which includes the approaches and different names that he dedicates to this concept.

From our point of view, the essential contribution of the American thinker was a proposal for a solution to explain the appearance of mind in the context of evolutionary theory. For a better understanding of this perspective we need an evolutionary model of intentionality, indicating the manner of transition from one level to another on the way to its most complex form: the structure of human intentionality.

The critical manner in which we address the concepts of the American philosopher derive primarily from assuming an essential purpose of intentionality in explaining consciousness, the starting point of this way of seeing being represented by the ways in which the concept of *intentionality* underwent specifications of its meaning in phenomenology. Thereby we assume some differences of perspective as compared to Dennett, which is the main source of the different ways to understand some concepts. For example, we suggest a different interpretation of the intentional strategy proposed by Dennett, set on purely intentional coordinated, excluding references to rationality in the current meaning of this term.

The definition of intentionality

In this section we shall use some provisional definitions of the meanings that Daniel Dennett gives to intentionality, having the character of a starting point, as these are to be completed in the following sections, including in response to several critical approaches of several authors.

Compared to its original form, the concept of *intentionality* has undergone numerous meaning landslides and reinterpretations. Its removal from the context of the phenomenological discourse has led to adaptation forms, one of them being the interpretation granted by Dennett.

American thinker proposes the following definition “Intentionality in the philosophical sense is just aboutness.”¹ We believe that this definition is incomplete in case of the humane, lacking in one of its essential components: attitude. In a strong sense, intentionality involves the state of mind / consciousness to be oriented towards something while opening the (limited) possibilities when that something occurs (intentionality includes “intention” to make sense of that something in a certain context of signification). In other words, intentionality is the state of orientation towards something in a certain way. One of the consequences of this definition is the use of the *intentionality* concept in a two-fold manner: a *weak* one (one proposed by the American thinker) and a *strong* one, which we have previously proposed. The latter definition includes the former, adding it an additional feature. However, both definitions are useful: the definition given by D. Dennett allows the evolutionary analysis of intentionality, while the definition we suggest opens the possibility of the specific difference between human

¹ Daniel C. Dennett, *Kinds of minds. Toward an Understanding of Consciousness* (New York: BasicBooks, 1996), 35.

intentionality and what preceded it. We shall further clarify in this article, but without reaching a final definition in the rigorous meaning of the term. Because we are in a situation of a topic which is still researched the proviso of definition it can be considered natural.

From the perspective of the strong sense of intentionality, orientation towards something is one of the conditions. The idea seems to be uttered, implicitly, by the American thinker with a sentence which is in continuation of the one previously cited: “Something exhibits intentionality if its competence is in some way about something else.”² In support of our argument, we retain the general formulation, which suggests the possibility (maybe even the need) of certain qualitative clarifications.

Intentionality is an environment in which the birth of meaning arises. The fact that we talk both of intentionality of consciousness and about intentional strategies, deliberate attitudes or intentional systems, namely, in the classical epistemological paradigm, that we use the concept of intentionality with respect to both the subject and the object, is an argument on that status. Intentionality is simultaneously the way of being of consciousness and a way to understand the world. The understanding of the world takes place within the limits of relating to it, namely within intentionality limits.

Perfectly integrated in the Anglo-Saxon thinking, Dennett builds his approaches on the everyday way of being of the mind that exists under the form of what he calls folk psychology.³ Accordingly, intentional attitude is a way of mind of being from the perspective of individual and a fundamental mentality from the perspective of society.

The complex meaning that Dennett grants to intentionality can be understood by addressing the various ways in which the American thinker refers to it. We will further show concepts that we consider essential, initially indicating their general meanings.

² Dennett, *Kinds of minds*, 35.

³ The close connection which we establish between the areas of consciousness and the areas of social life is rooted in a similar interpretation, based on the idea of social formatting of the mind. See Rotilă Viorel, “Structura conștiinței: conceptul de domeniu al conștiinței” (The structure of consciousness: the concept of the area of consciousness), in *Restructurări dilematice* (Dilemmatic Restructuring) (Cluj-Napoca: Argonaut, 2013), 54-69.

Intentional attitude, intentional strategy of intentional systems

Intentional attitude is one of the ways of intentionality used in relating human mind to other intentional systems, based on an identical presumption of being:

“The intentional stance is the attitude or perspective we routinely adopt toward one another, so adopting the intentional stance toward something else seems to be deliberately anthropomorphizing it.”⁴ As we can see, the reference point is the intentional attitude is the humane, assuming the awareness of their own way of being, without which the intentional attitude is impossible. Dennett suggests even more than that, indicating that within approach called *intentional attitude*⁵ the human mind presumes the existence of other “minds”: “... adopting the intentional stance is not just a good idea but the key to unraveling the mysteries of the mind – all kinds of minds.”⁶

As we will see later in this article, much of the criticism addressed to the intentional strategy proposed by D. Dennett is related to the interpretation of rationality, taking place in the horizon of a definition of man centred on rationality. This leads to a relatively incoherent meaning of rationality with intentional approach.

The clarification of the meaning that Dennett provides to intentionality and reason is provided by the author’s text: “The intentional stance is the strategy of interpreting the behaviour of an entity (person, animal, artefact, whatever) by treating it *as if* it were a rational agent who governed its “choice” of “action” by a “consideration” of its “beliefs” and “desires.”⁷ We can see that, from Dennett’s perspective, we treat an entity *as if it was a rational agent*, which means to behave *as if* that entity chooses its actions on the basis of certain beliefs and desires. At issue is a human behaviour, described in terms of what the author calls *folk psychology*. It derives from the current way in which people relate to one another: “The intentional stance is the attitude or perspective we routinely adopt toward one another, so adopting the intentional stance toward something else seems to be deliberately *anthropomorphizing* it.”⁸ One of the effects of that interpretation on

⁴ Dennett, *Kinds of minds*, 27.

⁵ The formula *intentional stance* is basically tautological because intentionality involves a relations, an orientation towards, namely an attitude.

⁶ Dennett, *Kinds of minds*, 27. We note that the expansion of certain concepts applicable to human is a common practice used by the American thinker, its critical analysis being carried out later in this article.

⁷ *Ibidem*.

⁸ *Ibidem*.

the main topic of this article is to establish a sequence essential to the development of intentionality, intentional attitude being conditional on the society existence.⁹

From another perspective, we retain for the moment the relative identity that Dennett seems to establish in the quoted text between *intentional attitude* and *intentional strategy*, the latter being only a methodical explanation of the former. In the final section, relating to intentionality system postulated by the American thinker, we shall try to point out some differences between the two.

The intentional attitude is simultaneously a way of being of the human, a way of relating to the environment and to itself and a form of existence presumed in other entities, in an attempt to understand them. The attempt to understand another entity based on intentional attitude is a form of anthropomorphizing, relying on a specific form of empathy, which employs the assumption that the entity is an *intentional system*.¹⁰ Which is why the discourse based on this interpretation using terms specific to be human way of being. The check of intentional strategy efficiency is a pragmatic one, based on the ability to predict the behaviour of an intentional system. In a summary form, we believe that the relationship between intentional strategy and intentional systems can be summarized as one-way-of-being-of-the-mind-of-which-presumes-identical-ways-of-existence.

From our point of view, intentional strategy must relate only to intentional coordinated without overcoming its own discursive framework by adopting foreign concepts to define it, such as rationality. Intentional strategy is not a theoretical model that can be adopted in knowing the environment, but a way of being of consciousness. However, based on the definition given by Dennett to intentional strategy, we believe that it should be remembered not that we can make predictions based on intentionality, but the fact that our entire thinking is intentional, one of the features being an allocation of intentions to what it knows. In other words, intentionality is not only one of our cognitive possibilities, but the very medium of knowledge.

⁹ The consequences are wider, opening the direction of the research of the relationship between *social intentionality* and the occurrence of *intentional attitude*.

¹⁰ The concept *intentional system* is simultaneously an epistemological meaning, describing the horizon of meaning in which the behaviour of an entity can be understood, a scientific meaning, indicating the belongingness to a particular class of entities (biology is the science that deals with the study thereof) and an ontological meaning, indicating the existence of a category of being in the existentialist sense of the term, as a being-for-man (the only affordable way from a cognitive perspective).

Intentional systems are the existences organized on multiple intentional coordinates. For the discovery of intentional systems the intentional attitude is essential: "I call all these entities, from the simplest to the most complex, intentional systems, and I call the perspective from which their agenthood (pseudo or genuine) is made visible, the intentional stance."¹¹ We believe that intentional systems can be presented from two different perspectives: "the subjective perspective" (it is presumed to be an intentional system any entity over which is intentional attitude is directed or the intentional strategy is applied) and the "objective perspective" (any entity that reveals intentionality can be considered intentional system). The separation is largely just a methodical role as intentionality can be "read" only by the intentional attitude.

In Dennett's defense. About the intentionality of natural selection

Mark Pharoah criticizes Dennett's lack of consistency resorting to two different texts from *The intentional stance*:¹²

With regard to purpose, one may note that Dennett stipulates, "it can never be stressed enough that natural selection operates with no foresight and no purpose"¹³ but that, "we are really well design by evolution";¹⁴ that "we may call our own intentionality real, but we must recognize that it is derived from the intentionality of natural selection."^{15 16}

The main problem seems to be the answer to the question: Is there an (overall) intentionality of natural selection? The answer depends on the definition that we give to intentionality. At first glance, a definition based on *beliefs, desires and goals*, as given by Dennett in the cited work does not seem to be applicable. But in a certain sense, even this definition satisfies the possibility to talk about an intentionality of evolution, the best evidence being *animism* or *religion*. In other words, *evolution* in the face of nature, has already suffered a whole set of interpretations based on beliefs, desires and goals, providing us with evidence of a history of culture.

The second category of evidence on the relevance of a discourse about the intentionality of evolution is provided by evolutionist principles or laws of *nature* (as medium of evolution). Pharoah misses that intentionality in its essential form it

¹¹ Dennet, *Kinds of minds*, 26.

¹² Daniel C. Dennett, *The intentional Stance* (Cambridge, Massachusetts: The MIT Press, 1987).

¹³ *Ibidem*, 299.

¹⁴ *Ibidem*, 51.

¹⁵ *Ibidem*, 318.

¹⁶ Mark Pharoah, "Intentionality: Dennett's vital error is Searle's critical omission," accessed July 3, 2015, <http://www.mind-phronesis.co.uk/Intentionality.pdf>.

is human, having as main characteristic the fact of being a way to understand gradually the existence. From Dennett's economy of thinking emerges the central idea that evolution theory is the result of the human intentional attitude or of intentional strategy that presumes a whole series of intentional systems increasingly more complex, which take place in temporal coordinates, constituting what we could call "a history of intentionality."

This "history of intentionality" can go through a reading in the light of progress, the central point of reference ("final goal") being represented by human's intentional structure. We can even force a resemblance with the Hegelian dialectics at this point, thinking evolutionary theory from the perspective of intentionality: the human intentional structure is the moment when intentionality begins to understand itself, on the two essential coordinates, diachronic and synchronic. Diachronically, intentionality is understood from the history of its becoming, of occurrence and transition from simple to complex; this way of understanding coincides with the theory of evolution. The diachronic understanding is currently inserted, as a starting point; a present the main feature of which is the understanding of the intentional structure of the human mind and of its relations with other intentional systems that actually correspond the diachronic understanding of intentionality.

Pharoah changes Dennett's sense of idea by extracting it from context, reading the entire paragraph and the following revealing the author's intention to show that natural selection does not operate on purpose or based on a project, which does not prevent us to observe the "choices," "reasons," etc. in the process. In other words, natural selection supports such explanations as part of the human way of seeing things, as they are at least derived from the intentionality of the one who sees it. The problem lies largely between a possible difference between the objective and the subjective sense of *evolution intentionality*. The partial answer to this problem can be given in terms of phenomenology: any intentional system exists only to the extent to which it can be observed by the intentional structure that man establishes. The universe of discourse of intentionality is unavoidable humane as a means of reporting and interpretation / signification of the existence by the consciousness.

The meaning of the term rational within intentionality

The use of the term *rational* in the context of intentionality may give rise to inappropriate meanings. The goal of prediction is to anticipate behaviours. At this point we tend to be in disagreement with some kind of interpretations given to

Dennett's thinking, anticipating the "object" as a rational, assignment of certain beliefs and desires, constituting a form of retrospective rationalization in the order of evolution, with an explanatory role for the cultural way of knowledge. Obviously, cultural transmission of knowledge is part of the picture of intentional relation to the environment. It is late, as research must be focused first on those aspects identified as instinctual. In this regard, we believe that the analysis of the affective structure reveals the important role of emotions and feelings in intentionality dialectics.¹⁷ Additionally, beliefs and desires are intentional fundamental relations to the world, they are ways of orientation of consciousness. While by *beliefs* we understand the common meaning of the term, defined by reference to religious belief, it is clear that reason has a relatively small role in generating such an approach to the world, a form of "choice" of one or another of the cultural models which tries to explain its structure in a coherent way being dominant. Predictions based on these guidelines are intended to reasonably predict the behaviours of intentional systems, not to prescribe operating laws. An example of belief in an explanatory model is the astrology chart, generating an alleged capacity of anticipation of others on the basis based on information which, in fact, does not provide a sufficient explanatory basis of behaviour. But common orientation towards this interpretative model generates reality, following the model set by Robert Merton in *The Self-Fulfilling Prophecy*.¹⁸ In other words, the common belief in the cognitive model of the astrology chart, even if it is false in terms of scientific knowledge, is a form of relation to reality, as the predictions made based on it have as correspondents behaviours that were induced by means of the common belief in this cognitive paradigm.

If by *reason* we mean the ability to identify and use opportunities than the use of this concept could be accepted, although it is already covered by the significance of intentionality.

Intentionality is opportunistic

Intentional strategy is opportunistic, taking advantage of opportunities being essential. Prediction resulting from intentional strategy application must be interpreted in terms of the ability to discover opportunities and possibilities of taking advantage of it. From this perspective, rationality is just one method, one of several possible to which man has access. It involves conducting a conscious

¹⁷ We addressed this problem in a first variant in the article "A critical approach of emotional intelligence", Viorel Rotilă, in *Restructurări dilematice*, 69-86.

¹⁸ Robert K. Merton, "The Self-Fulfilling Prophecy," *The Antioch Review* 8, 2 (1948): 193-210.

process of identifying opportunities, relative to one's own desires and beliefs, and using it in meeting personal and collective interests.

For the most part, however, the identification and selection of survival and perpetuation opportunities are placed outside the conscious analysis, namely, based on conscious processes¹⁹ unconsciously. Opportunism defines the essential rule of evolutionary selection. The fact that the intentional systems are opportunistic is suggested by Dennett as well: "But no way is ever foolproof. There is no taking without the possibility of mistaking. That's why it's so important for us as theorists to be able to identify and distinguish the different varieties of taking (and mistaking) that can occur in intentional systems."²⁰

To say that *intentionality is opportunistic* attracts the risk to understand that all guidelines of consciousness aim directly at opportunities. However, this is not the meaning that we have in mind, as the intentionality structure admits derived intentionality, which are not directly linked with aiming at opportunities, but only mediated by the whole of which it is part. For clarity, at a certain level of the discourse about intentionality, we believe that opportunism is one of the fundamental intentionalities, a vector which contributes to shaping the consciousness (being part of the axiomatic structure).

Criticism made by John Searle

John Searle's places Dennett's perspective on intentionality in an area of tools useful to prediction, which can only be seen in this way:

...there is the eliminativist view of intentionality; there really are no intentional states. The belief that there are such things is just a residue of a primitive folk psychology, one that a mature science of the brain will enable us to overcome. A variant of the eliminativism is what we might call interpretativism. The idea here is that attributions on intentionality are always forms of interpretations made by outside observer. An extreme version of this view is Daniel Dennett's conceptions that we sometimes adopt the 'intentional stance' and that we should not think of people as literally having beliefs and desires, but rather that is a useful stance to adopt about them for the purpose of predicting their behavior.²¹

In other words, in Searle's sense, the way in which we must understand intentionality in Dennett's writings should be reduced to the strict methodical

¹⁹ The need to relate to the conscious processes for defining the unconscious ones shows that the unconscious is the result of a cataphatic definition, by negation, indicating what we cannot identify in the area of *consciousness*.

²⁰ Dennett, *Kinds of minds*, 37.

²¹ John Searle, *Mind, A Brief Introduction* (Oxford: University Press, 2004), 163.

sense that he would give to intentional attitude. Searle operates here with a simplified vision on Dennett's thinking, missing the meaning that the latter gives to intentionality. The following passage from a work of Dennett proves this:

...the intentionality that allows us to speak and write and wonder all manner of wonders is undeniably a late and complex product of an evolutionary process that has the cruder sorts of intentionality – disparaged by Searle and others as mere as if intentionality – as both its ancestors and its contemporary components. We are descended from robots, and composed of robots, and all the intentionality we enjoy is derived from the more fundamental intentionality of these billions of crude intentional systems.²²

We may remark in Dennett's text that talking about intentionality in his thinking, quite close to the meaning that phenomenology establishes to this term is not wrong, and thus the distinctions we make between the correlative concepts of intentionality are entitled.

International strategy is part of the intentionality system

Searle is not the only author who is interprets improperly Dennett's thinking. In this regard, we will use another example, namely the article *Dennett's Intentional Strategy Applied to Animals*, written by Melanie Stankus,²³ its election demonstrating the persistence of a disagreement so far. The author mentions: "Roughly speaking, the intentional strategy involves attributing beliefs and desires, that a reason using object ought to have given the circumstances, to an object; with those beliefs and desires, one should be able to predict the object's behaviour."²⁴ From the beginning, our attention is drawn by the slippage of meaning that suffers Dennett's thinking interpreting. We believe that intentional strategy demonstrates the status of fundamental element of reality that intentionality has, the prediction of behaviour constituting evidence, not an end, of the definition of Dennett. Intentional strategy shows the way of cognitive adaptation to the environment of consciousness based on its fundamental way of being, that is geared to... (intentional), and on the practical success of the projection of this way of being in other structures of existence: an intentionality (intentional strategy) that presupposes the existence of intentional environments in the environments on which it is focused, attributing beliefs, desires and goals in order to make useful predictions for one's own existence. The only form of confirmation of the practical

²² Dennett, *Kinds of minds*, 55.

²³ Melanie Stankus, "Dennett's Intentional Strategy Applied to Animals," *Res Cogitans* 6 (2015): 29-35, accessed July 10, 2015, doi: 10.7710/2155-4838.1122.

²⁴ *Ibidem*, 29.

validity of these predictions is survival. In other words, intentional strategies are survival strategies. Predictions resulted in the application of intentional strategy on intentional systems serve primarily in the shaping of behaviour.

In a paper which deals with risk analysis, Nassim Taleb believes that from an evolutionary perspective it is preferable to mistake a rock for a bear, than to mistake a bear for a rock;²⁵ long before Taleb, Dennett uttered this idea in a simplified formula: “but better safe than sorry.”²⁶ We can mistake a rock for a bear because consciousness is oriented towards perceiving intentional systems in certain circumstances (in the sample analyzed: forest, night) as they could be a threat to one’s own existence. The rock mistaken for a bear²⁷ indicates both the existence of a horizon of expectation, that is a way of orientation to the environment and that the significance that we attach to those encountered is ordered by certain priorities, intentional systems coming first.

This kind of confusion is carried out most often unconsciously. This is demonstrated by the fact that we have a reaction such as *fight or run* before realizing what was happening. This shows the existence of an unconscious intentional lecturing of the environment, held simultaneously with the conscious one. In other words, evolution has selected this intentional survival strategy oriented towards the identification of intentional systems. Within it, there is an anticipatory set of predictions, associated with some predefined categories of reactions that relate to different generic types of intentional systems.

Returning to the problem of prediction it is obvious that intentional strategy does not result in scientific predictions that can be contained in a system of scientific laws, as the usefulness of these predictions should be analyzed in terms of survival strategies. The route of human evolution demonstrates the statistical validity of this “predictive system” based on intentional strategy oriented towards intentional systems. Prediction must be understood here in evolutionary context, not in the scientific context of the term. The goal of prediction is the transformation of the environment in the world, having an ordering role for human existence.

The misunderstanding of intentionality system which Dennett considers is visible in Stankus’ attempt to demonstrate that intentional strategy is applicable to

²⁵ Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder* (Random House Publishing Group, 2012), 391.

²⁶ Dennett, *Kinds of minds*, 91.

²⁷ Examples of this kind can be verified by personal experiences, walking at night in a forest where we know there is wildlife

animals rather than humans: “I will argue that the intentional strategy works better on nonhuman animals than humans.”²⁸ In the methodological notes of intentional strategy application Stankus notes analytically:

*There are four steps to the intentional strategy. First, whatever the intentional strategy is being used on must be treated as an ideally rational object, a reason-using object. Second, one must figure out what beliefs that rational object should have given the circumstances of its existence. Third, given the same circumstances, one must figure out the desires of this rational object. And finally, by this point, it should be predictable how this rational object will behave.*²⁹

First, comparing this text with the one in which Dennett defines intentional attitude shows the disappearance of the formula “*as if* it were a rational,” which is a form of placing into brackets, of removing that entity from the classic cognitive context. Then, we see the elimination of quotation marks, marking the figurative meaning of words: in the intentional attitude we do not assume that an entity is rational (except peers) has beliefs and desires, but we behave as if they have all these human characteristics to they can make predictions on its behaviour. Given that our predictions are correct (from a statistical perspective, confirmed by evolution) we are entitled to discuss the possibility of rationality, if we refer to an intentional structure specific to the humane or of the various “forms of rationality” that the discourse analyzes from the perspective of evolutionary precursors of human rationality.

We can accept it only if its use relates to a metaphorical meaning of the term. If the use of the concept wishes may be identified by identifying a reviewer, we cannot say the same about the term beliefs. We are obviously in the presence of anthropomorphizing of animals that are given as examples, as this is the only interpretation in which the discourse makes sense. In other words, examples given say, simultaneously, something about the human way of understanding, about human intentionality and about animals’ intentionality.

The difference between the rabbit given as an example by the author³⁰ and human is the fact that the rabbit is guided by a set of intentionalities, while man is inserted into an intentional complex structure. Like the rabbit, man is afraid of a noise that genetic heritage and experience associate with danger. It is enough it to build a counter-example equivalent in terms of risk (earthquake, shooters, etc.) to

²⁸ Stankus, “Dennett’s Intentional Strategy Applied to Animals,” 29.

²⁹ *Ibidem*, 30.

³⁰ The example chosen is in itself problematic from the perspective of intentional strategy, given two atypical characteristics of mammals, *cecotrophy* and *superfetation* (in the case of females, inducing effects on males’ behaviour), which creates difficulties in anthropomorphizing.

identify the behaviours such as *fight or run* established by fractions of a second before man is aware of what is happening. In case of humans the layer complex of intentionality taken over by cultural way is added, that can generate inhibiting guidelines on instinctual reactions. But if we consider the previous counter-example, cultural inhibition either interferes after the establishment of the adaptive behaviour (the crack was from a car, not from a bullet fired) or creates a specific context of different meanings of signals (we are not frightened by each shot in a film because we are already oriented to interpret the signals as pertaining to fiction).³¹

In an interim conclusion of the mental experiment the author says: “It’s pretty clear that it is far easier to attribute beliefs and desires to animals than humans simply because animals are simple-minded creatures,”³² citing the higher complexity of the human mind as the reason of the impossibility of predicting human behaviour. As a general observation, we believe that the general view is wrong: people have beliefs and desires because of the complexity of the mind, contributing to the specific difference as compared to animals. The assignment of these characteristics in animals, within intentional strategy, refers to the complexity of the human mind.

We will try to show that this conclusion is wrong. At first glance, the author’s conclusion seems valid, and we can also bring an argument in this respect by using the civilization history: the domestication of animals, namely their enslaving in people’s interest, demonstrates the effectiveness of intentional strategy applied to animals. Humanity has intuited their “beliefs” and “desires” so good, understood their “rationality” so clearly and predicted their behaviour so well that he managed to master them. But this success applies in case of all animals? Ernest Hemingway’s novel *The Old Man and the Sea*, may be relevant to our approach: the old fisherman managed to achieve the intentional strategy applied to the giant fish, but failed in predicting the behaviour of sharks.

The domestication of animals shows the success of anticipatory strategy on some animals, missing the utensil references to the existent fauna, namely to all non-domesticated animals. We could believe that humanity was not interested in domesticating other animals because they did not find purposes in the ensemble of its goals. *The fear of wild animals* occupies a significant space in the area of

³¹ However, horror movies continue to have an audience, relying on the ambiguity they manage to generate between reality and fiction, namely the fact that our fundamental orientation to avoid hazards prefers to be cheated than risk (see N. Taleb’s example described above).

³² Stankus, “Dennett’s Intentional Strategy Applied to Animals,” 33.

human fear. The fear that we feel by entering a wild forest at night indicates the intentional strategy limits imposed on animals. Sure we can predict the behaviour of rabbits in front of the noise. However, does our ability to predict their behaviour help us catch the wild? If we change the analysis parameter using the rabbit catching as an indicator of the predictive capacity, it would seem that “the greyhound intentional strategy” is more appropriate than that of most people.

From another perspective, we are entitled to believe that intentional strategy does not work in humans? What should the results be to consider it works? What indicators we mean? What are our legitimate expectations in this respect? Teleologically, we believe that the proactive strategy has proved effective, as demonstrated by the present situation of human civilization: we are at this point in progress because of the success of this strategy. Obviously, a glance at history reveals that this journey can be described by a continuous series of conflicts. The synchronic perspective can reveal the present misunderstandings at both the macro level in the guise of conflicts between states and at the basic level, in the guise of family conflicts. The final judgment is conditioned by the prospect that we assume.

To say that intentional strategy works better for animals than humans is erroneous, given that intentional attitude is based on a form of relating to people, to predict behaviours that is applied (in a derived form) on other entities. The inability of intentional strategy to correctly predict human behaviour every time does not derive from its error, but from the characteristics of the human way of being: the most complex intentional system.³³ The knowledge provided by intentional attitude is a statistic one, having as an essential characteristic the ability to predict the behaviour in a reasonable number of cases. Predictions generate opportunities while errors have costs; all expressed in terms of evolution. We thus suggest that intentional strategy does not generate knowledge in the sense that this term has in the area of exact sciences, but rather in the sense that knowledge has in the area of social and human sciences. Intentional strategy is a strategy for analyzing risks and opportunities, being thus defining for the evolutionary dimension of existence.

Humanity has recognized the limits of intentional strategy, trying to remedy the situation through various solutions. To increase the predictive capacity in certain contexts, the society invented roles and associated distinct markings. For example, the uniform is the way in which society labelled certain categories of

³³ We called it intentional structure to mark an essential specific difference from other intentional systems. This specific difference remains to be defined.

intentional systems called people for all others to be able to predict their behaviour in a margin of error as reduced as possible. The ensemble of social roles can be understood from the perspective of approaches for adapting society to intentional strategies of its members.

About Dennett's "ambiguities"

Sometimes Dennett uses the terms ambiguously, thus creating confusion. For example, the phrase:

Any intentional system is dependent on its particular ways of thinking about – perceiving, searching for, identifying, fearing, recalling – whatever it is that its “thoughts” are about. It is this dependency that creates all the opportunities for confusion, both practical and theoretical.³⁴

induces the idea that any intentional system has thinking in the human sense of the term. Moreover, the formulation tends to generate the idea of a reflexive thinking (to think about their own thinking), an attribute that we can consider only in case of humans, being defining for consciousness.

We can further observe that the author contradicts himself in this regard:

An animal might well be capable of such sophistication, modulating its locomotion to keep itself hidden in shadows from its prey, or even anticipating where to stretch out in the sun for a long nap, appreciating (dimly and unthinkingly) that the tree's shadow will soon lengthen.³⁵

Explorations in evolutionary key that the American thinker makes in the analysis on intentionality impose the use of the concept of *thinking* in poor shape thereof, derived from the hard definition, suitable only for the human. The main argument is the fact that we do not have conclusive evidence of the existence of reflective thinking, namely of consciousness in case of animals. Moreover, it would be difficult to obtain such evidence as long as we do not have a common understanding of consciousness. An additional argument is provided by the fundamental link that appears to exist between the existence of language and reflective thinking.³⁶

The situation is applicable to the mind, the use of the formula “all kinds of minds”³⁷ suggesting the extension of concepts the use of which is considered appropriate only in case of the humane. The main explanation for these landslides

³⁴ Dennett, *Kinds of minds*, 37.

³⁵ *Ibidem*, 43.

³⁶ The argument is the main counter-argument of the theory of existence of a language of thought.

³⁷ *Ibidem*, 27.

of meanings is anthropomorphizing, explicitly assumed by Dennett as part of the intentional strategy. The author implies that we are entitled to speak of the mind as in the case of creatures other than humans. But, as we mentioned in case of thinking this is a weak sense of the term, Dennett stressing, by referring to the “old minds”: “Their intentionality is short-range and easily tricked.”³⁸ The effect of this formulation is clearly a qualitative (natural) differentiation in the evolution of each of the three elements: mind, thought, intentionality.

Clearly, Dennett considers the possibility to talk about thinking in a hard sense only under specific significant differences (between intentionality), such as language “perhaps language is not so peripheral to minds after all. Perhaps the kind of mind you get when you add language to it is so different from the kind of mind you can have without language that calling them both minds is a mistake.”³⁹ What we believe justifies, the clarifications we make, indicating the provisional nature (and relatively imprecise) of the use of certain terms, such as thinking.

From another perspective, ambiguities are inevitable as long as speech is held in common parlance, largely avoiding its specialization. However, the approach assumed by the American thinker, namely the foundation of research in everyday life (folk psychology) considerably limits the possibility of language specialization.

Intentional attitude and utensil orientation

Dennett believes that intentional attitude is one of the human ways of knowledge, along with physical attitude and the attitude of the project. From the perspective of the relationship between social attitudes and attitudes of mind, we consider that there is a close connection between the intentional attitude postulated by the American thinker and Heidegger’s utensil orientation, at first glance the latter being part of the former. The attempt of trying to make a comparative analysis between the two clashes, however, with the concept of *physical attitude* that the American thinker proposes, alongside the *attitude of the project* in an attempt to complete a picture of attitudes of mind.

The utensil orientation shows a collective mentality (let’s call it intentional collective attitude) for which utility is a key driver, applying it both to physical or crafted objects and to entities defined as intentional systems. Based on the principle of social formatting of mind, the collective mentality translates into

³⁸ *Ibidem*, 80.

³⁹ *Ibidem*, 17.

individually intentional attitudes. In other words, the pragmatic orientation of society, based on scientific knowledge and technological manipulation that characterizes the utensil orientation, can be found at the individual level, as a specific intentional attitude. This means that the three types of attitudes proposed by the American thinker correspond to a scientific perspective rather than to folk psychology.

The problem can be overcome by considering that intentional attitude does not correspond to intentional systems univocally, orienting it towards other types of entities. However, that would imply to reshape the definition given by the American thinker to intentional attitude.

An attempt in this direction would lead us to the following interim results: intentional attitude is not the same with intentional strategy, as only the latter has as univocal correspondent entities likely to be intentional systems, while the former maintains to an essential definition of mind, that of being oriented towards... (in this context the formula intentional attitude is tautological: intentionality implies *ab initio*, an attitude). The understanding that we have on intentionality means implicitly the rejection of another an interpretation that William Bechtel gives to the system of the three intentional attitudes that Dennett suggests: "His goal is not to reduce intentionality to something non-intentional by identifying intentional descriptions with non-intentional ones."⁴⁰

The problem we believe may be clarified by the different meanings in which Dennett uses the concept of intentionality, namely by what we call "intentionality system" existing in the American thinker.

The existing intentionality system in Dennett's thinking

We have shown before the different meanings that Dennett grants to intentionality and some of the erroneous interpretations generated by the relatively ambiguous way in which the American thinker uses this concept and the ones correlative to it. We further propose a system of intentionality that can be deduced from Dennett's thinking, as this is an approach that can bring a better understanding of the American thinker ideas. Please note that we are not clear to what extent in this scheme we are talking about a systematization of Dennett's thought or a system that we create for harmonizing his thinking with our assumptions.

⁴⁰ William Bechtel, "Realism, instrumentalism, and the Intentional Stance," *Cognitive Science* 9, (1985): 473-497, 475.

We will address the issue at two different levels that can be considered, first, epistemic and ontic.

I. Epistemic level: the construction of an intentionality system based on the definitions given by Dennett.

Demonstration of the existence of “a system of intentionality” in Dennett’s thinking is the main focus of this article. We believe that this system coordinates are:

1. *Intentionality* is a feature of the living world, giving account of its “rationality” and characterized by the orientation towards... Within it one can distinguish two main categories:

i. Human intentionality. Simplistically, we can consider that it consists of:

a) *Biological intentionality*

b) *Intentional attitude* (based largely on social intentionality).

*ii. Intentionality of various creatures (for simplicity, we will say biological intentionality)*⁴¹

2. *Intentional systems* intentionality are the entities characterized by multiple entities.⁴²

3. *Intentional attitude* – is the orientation of the human mind (we can consider, under the benefit of inventory, of consciousness) towards the discovery of intentional systems. As previously mentioned, it is more appropriate to understand the intentional attitude as specific difference of the intentional structure that characterizes the man as compared to intentional systems.

4. *Intentional strategy* – is the way of orientation of the human mind towards a way of “understanding” of intentional systems presuming them with “thinking”, understanding capable of generating predictions on their behaviour. The way of understanding is a form of man’s orientation towards man, assuming their reporting to any intentional system *as* it would have “beliefs” and “desires” to predict the behaviour.

⁴¹ The term *biological intentionality* must be understood in the context of the article. Clearly, it has no pejorative connotation, and through it we want to indicate a class of intent simpler than that of man. This intentionality refers to the whole world of the living. Also, it has both numerous distinctions within it (that we put between brackets along with the use of this formula) and forms of integration in human intentionality.

⁴² We can consider that Dennett includes human intentionality here. For clarity and out of the desire of consistency with the prospect that we consider regarding the consciousness (the concept the structure of consciousness being defining), we used the formula *intentional structure* to refer to human intentionality.

II. *Ontological level: identifying “different types of intent” that precede human intentionality system, while making part of it.*

In Chapter *How intentionality came into focus* of his book *Kinds of minds. Toward an Understanding of Consciousness*,⁴³ Dennett presents an interesting evolutionary picture of the evolution of the mind, identifying four mental types preceding the development of the human mind.

What is curious, however, is that despite the title chosen for this chapter, the explicit approach of intentionality is missing. Given the intention suggested by the author, we consider ourselves entitled to treat mental types as intentional systems. Thinking it as a failure to be covered, we will try to propose some intentional coordinates corresponding to intentional systems presented as mental types. In other words, we shall present mental categories as intentional systems, suggesting specific differences. To the extent that our approach can be considered successful, we believe that we can get a first outline of the evolution of intentionality.

Mental type	Intentionality type / intentional system
<p><i>Darwinian beings</i> – candidates to the status of organisms generated blindly through recombination processes and gene mutation, only best models surviving. Survival is based on inherited behaviour.</p>	<p>The simplest form of intent, characterized by the presence of two vectors: the survival and perpetuation / multiplying. Orientation towards “itself” and (relative) indifference to the environment. We cannot yet speak of an intentional system. We tend consider it a form of pre-intentionality.</p>
<p><i>Skinnerian beings</i> – elements capable of being altered by surrounding environment events. Their adaptation is based on the generation of a variety of actions, which they tried one by one until they found the right one; signals from the environment, positive or negative, adjusted the probability that the action be produced on another occasion. To the behaviour inherited the capacity (inherited) amending adaptation processes is added. It reshapes its behaviour in the right directions. The check is made on the principle of generation and error.</p>	<p>Fundamental vectors are reinforced, the orientation towards survival benefiting of primary forms of adaptation, namely changes in behaviour depending on the environment. To the orientation to “itself” the one to the environment is added, jutting out a first form of coordination of the two. The coordinates of a system arise. From this point we can certainly speak of intentionality and of an intentional system design.</p>

⁴³ Dennett, *Kinds of minds. Toward an Understanding of Consciousness*, 81-110.

<p><i>Popperian beings</i> – have an internal environment that acts as a filter, which tests the options for action on the actions substituents. Preselect behaviours and possible actions before actually testing them.</p>	<p>The orientation towards “itself” and towards the environment is consolidated. Orientation towards “itself” is accompanied by the orientation towards “itself in different contexts” (an anticipation of the “self”). Orientation towards the environment is accompanied by a form of orientation “internal environment”. It emerges first form of temporal orientation, in the guise of anticipation of the future, and a first face of orientation towards others. The intentional system arises.</p>
<p><i>Gregorian beings</i> – are characterized by the use of tools, proving intelligence in their construction and benefiting from inherent intelligence (in J. Searle’s terms) incorporated therein. They have the ability to think better about what they should think in the next period. They benefit from the experience of other beings</p>	<p>Orientation to others is included in the intentional system as one of the fundamentals. To the intentionality acquired by inheritance and “personal experience” that taken over through socialization, namely of the contact with other “experiences” is added. A first form of communication. The temporal horizon acquires structure, to the future face that of the past can be added.</p>

We believe that this approach opens a line of research of the development of intentionality that may prove useful in understanding the structure of human intentionality and explaining its occurrence. So far we have presented only a sketch project. The picture must be completed by the structure of human intentionality, and according to it intentional systems can gain more substance. A bold and difficult step also because it coincides with the attempt to present the structure of consciousness. We suggest some of the rules that must be respected in this process: the structure of human intentionality includes some intentional system components. Which means that not all dimensions intentional systems will be reflected in the structure of human intentionality. At the same time, the structure of human intentionality includes specific differences as compared to the ensemble of intentional systems. The most important source of these specific differences is generated by social existence.

Evolution is a macro-intentional system because it is an explanatory theory that presumes intentionality throughout its course. All theories are based on man’s intentional attitude. Their understanding would be impossible outside

intentionality. Intentionality can “understand” only within the limits of intentionality, that is attributing in turn *intentionality*. In this way of reporting itself the ways of developing what is aimed are prescribed.

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