Hierarchically Minded: Levels of Intentionality and Mind Reading

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In *The Human Story: A New History of Mankind's Evolution* (2004) the evolutionary psychologist Robin Dunbar speculates on the development of some mental abilities exclusive to humans as they evolved from pre-human species. His account somewhat limits the role of language, and the main emphasis falls on another phenomenon associated to humanization: the development of so-called Theory of Mind, a term current in contemporary evolutionary psychology which covers some of the ground of what is called *intersubjectivity* in phenomenological philosophical traditions. In this paper I will argue that the theory of Theory of Mind needs further refining, and further dialogue with relevant disciplines of the humanities, in order to take into account the complex semiotics of human experience and communication.

Human experience takes place in an intersubjective space of communication, in which our thought is constantly being intertwined with that of others; as a matter of fact much of what we call 'our thought' consists, beyond the immediate cognitive response to other people's words and actions, in the interpretation and hypothetical reconstruction of the thoughts of others. It is this phenomenon that cognitive theorists and evolutionary psychologists refer to as *mind reading*. Somewhat like Professor X in *The X-Men*, we all live immersed in a constant process of reading other people's minds. To be sure, the representation of other minds is also a central issue for literary theorists and narratologists.¹ In a paper on cognition and language understood as *internalized interaction* (2007a), I have examined some aspects of this phenomenon and the role it played in the origin of human intersubjectivity and of complex symbolic communication as an evolutionary process of dialectical feedback.

Intentionality has been addressed in the philosophical field by phenomenologists, and Dunbar briefly refers to this school. Phenomenologists used the term 'intentionality' to refer not just to intentions or plans but to a number of mental states relative to consciousness and mental awareness: mental states such as knowing, believing, thinking that, wishing, expecting, taking decisions, etc. For Dunbar, intentionality has to do with reflexive consciousness—"It refers to the state of being aware of the contents of your own mind" (2004: 45), and in its intersubjective dimension it can be conceived as "a hierarchically organised series of belief-states" (2004: 45).

One may partly disagree with some aspects of this account of the relationship between intentionality and consciousness. For instance, on the levels of intentionality of computers and simple living beings:

¹ Some comments apropos recent theories may be found in my note "Leyéndonos la mente" (2007), and also a in a series on articles on the concept of *topsight* or dominant perspective in the understanding of situations (García Landa 2009-2012).

Computers are zero-order intentional entities: they are not aware of the contents of their 'minds'. Some living organisms such as bacteria (and perhaps some insects) may also be zero-order intentional beings. Most organisms that have brains of some kind are probably aware of the content of their minds: they 'know' that they are hungry or 'believe' that there is a predator under that bush over there. Such organisms are said to possess first-order intentionality. (Dunbar 2004: 45)

It may be argued, however, that (a) feeding (b) being hungry and (c) knowing that one is hungry are three distinct types of phenomena. An animal that is merely hungry experiences a degree of intentionality lower than that of an animal that *knows that* it is hungry; in the latter instance, we are advancing one step towards conceptualization (the concept of hunger, for instance) and towards reflexive consciousness. As regards the example of the predator, perhaps Dunbar would convene that there is another relevant difference at work: believing that there is a predator around *because some signal of its presence has been perceived* is not the same as fearing that an invisible predator might be present *because one knows* that predators often hide behind bushes. The second mental process is much more elaborate, intentionally speaking.

Arguably, too, the degrees of intentionality are not as clearly defined not stacked through simple insertion, as Dunbar's account may suggest. He proposes an account of complex intentionality based on recursive embedding:

Having a belief about someone else's beliefs (or intentions) constitues second-order intentionality, the criterion for theory of mind (or, as it is more often known in the technical literature, ToM). Jane *believes* that Sally *thinks* her ball is under the cushion. Jane has two belief states in mind (her own and Sally's), so theory of mind is equivalent to second-order intentionality. (2004: 45)

Likewise, Peter may want Jane to suppose that Sally believes that the ball is still under the cushion. Sally's intentional state is first-order, Jane's is second-order and Peter's is third-order. We could say that Peter has topsight or dominant perspective as regards this situation. Conventional wisdom, Dunbar argues, points out that adult humans can manage a maximum of five or six degrees of usable intentional levels: "Peter *believes* (1) that Jane *thinks* (2) that Sally *wants* (3) Peter to *suppose* (4) that Jane *intends* (5) Sally to *believe* (6) that her ball is under the cushion" (2004: 46).

We get lost, which is only to be expected, according to Dunbar: most everyday situations have to do with second-degree intentionality, and in practice people can normally solve problems up to a fifth degree of intentionality; less than half reach the sixth degree—while problems having to do with levels of *causality*, for instance, can easily be resolved up to the seventh degree. People suffering from schizophrenia or depression, autism, or Asperger's syndrome have difficulties in dealing with complex intentionality. So do men (i.e. males), who according to some satirically-minded feminists often suffer from a dash of autistic-like cognitive deficiencies. "The psychologist Simon Baron-Cohen has argued that, in reality, autism is part of the normal syndrome of maleness in our species, carried to extreme form in a few unfortunate individuals but simmering quietly beneath the surface of every male mind" (Dunbar

2004: 52). Dunbar himself argues that women do have more finely-honed social and communicative abilities, and are more sensitive to signs. It appears that they are statistically more capable of dealing with second- and third-degree problems of the theory of mind (2004: 52).

These and other cognitive propensities can be explained from an evolutionary and sociobiological viewpoint. Our peculiar cognitive makeup is a result of the heightened sociability of our species. Our hypersensitive attention to the intentionality of others and our propensity to ascribe intentional states to them may be one of the causes of religious feelings, of belief in spirits and in a world which is intentionally organized, a belief typical of creationist myths of all ages. We continually construct intentions and mental states behind other people's behavior, a requirement for, as well as a result of, this heighened sociability; but then we sometimes get it wrong, and ascribe non-existent intentionality of animals; "Indeed, so natural it is for us to interpret other organisms' behaviour in this way that we even ascribe mental states to the inanimate world." (Dunbar 2004: 53).

Mankind constitutes one exceptional case of extremely complex sociality among the higher animals—an alien observer might easily characterize us as apes with some strangely ant-like propensities for large and tightly-knit social groups.² But human cognition is socially constituted to a degree which really has no parallel in either the insect societies or in our closer relatives, the apes. Beorlegui characterizes the essentially social nature of human individuality and cognition from a standpoint which combines the insights of hermeneutic philosophy and evolutionary biology:

In its interaction with the environment, the functions performed by human consciousness are similar to those of other animals, but the most basic function of our consciousness is to guide us through interhuman relationships. Because it is essential to realize that the primordial relationships of human beings are not relative to the natural environment, but to conspecific fellow humans. Thus, the human mind was developed and was shaped in an interpersonal and social environment. Thus, human inteligence is fundamentally, and to a greater extent, a social rather than a practical intelligence. As such, it is oriented above all to understanding and interpreting the interiority and the intentions of conspecifics rather than to solving and overcoming mere problems of survival, such as getting fed, dressed, escaping from predators, or any other such problem. (Beorlegui 2011: 268, my translation).³

 $^{^{2}}$ The complex sociality of humans and social insects is compared from the standpoint of evolutionary sociobiology by Wilson (2012). While Wilson is attentive enough to the consilience between science and the humanities (1998), he arguably underestimates the peculiarities that human sociality derives from the complex cognitive abilities of human individuals.

³ "En el ejercicio de interactuar con el entorno ecológico, la conciencia humana realiza funciones parecidas a la de los demás animales, pero lo más básico de nuestra conciencia es guiarnos en las relaciones interhumanas. Porque es fundamental ser conscientes de que las relaciones primordiales de los seres humanos no se refieren al entorno natural sino al resto de compañeros de especie. Así, la mente humana se formó y se configuró en un ámbito interpersonal y social. Y, por tanto, la inteligencia humana es fundamentalmente inteligencia social antes, y en mayor medida, que inteligencia práctica. De tal modo que se orienta en mayor medida a entender e interpretar la interioridad y las intenciones de sus congéneres humanos antes que a solventar y superar los problemas de mera supervivencia, como el comer, vestirse, escapar de los depredadores, y cualquier otro problema de esta índole." (Beorlegui 2011: 268)

These intersubjective and psychoevolutionary roots of religion and of belief in the supernatural are further examined by E. O. Wilson, Adolf Tobeña, and other evolutionary theorists.⁴ Wilson himself concludes *The Social Conquest of Earth* with a speculation on the origin and role of religion as an element of social cohesion, as an interpretation of reality, and as a generator of strong emotional experiences of transcendence.⁵ The objects of religious beliefs are illusory, but the experience of religion turned out to be beneficial (for group selection, as argued by Charles Darwin or by E. O. Wilson) from an evolutionary viewpoint at a given moment of social development, and religions keep on providing societies with cohesion and with a source of values and purpose—if we except rationalist minority groups in modern societies.

Some aspects of machiavellian behaviour among apes and monkeys have led ethologists to argue that they also have an elementary theory of mind, that is, that they are able to understand that other individuals may have false beliefs, and on that basis they are able to manipulate those individuals for their own benefit, or even induce those false beliefs through dissembling and thus prepare the ground for such machiavellian manipulation. Dunbar reports numerous experiments without committing himself to a clear answer on this issue—and yet it would seem that many cases of complex social interaction among vervets or macaques, not to mention chimpanzees or bonobos, do suggest an ability for the mental representation of various levels of possible worlds contained in other minds. A capacity inferior to that of humans, admittedly: between the ages of four and six, children develop an ability to understand the beliefs and world-pictures of other individuals at a level of complexity beyond that of intelligent animals like apes or dolphins:

Even allowing for the most charitable interpretation of these results, however, one thing seems clear: neither chimpanzees nor dolphins perform anything like as well as six-year-old children, who most definitely do have theory of mind. Ans whatever it is that apes can do, they are simply not on the same scale as adult humans in terms of the latter's ability to cope with fourth- or fifth-order intentional problems. (2004: 60)

The theory of mind is an emergent cognitive ability based on a much more basic mental process: imagination, the ability to detach oneself from immediate circumstances in order to construct a mental model of something which is not present. In turn this involves the ability to manipulate memory traces. Some animals do have complex memory systems, but they all have a severely limited ability to manipulate memories: they live immersed in the here-and-now; they lack the ability to construct complex plans and elaborate mental models representing the consequences of different lines of action (although this ability does exist in higher animals in a restricted sense). It is in this ability of mental representation, or imagination, that one should look for the major differences between animals and humans, according to Dunbar. He notes that the section of the brain which has experienced the greatest development during the evolution of primates is the frontal lobes, which account for most of the superior intelligence of apes and

⁴ See Wilson (1998, 2012) and my note "Programados para creer."

⁵ See my notes on Wilson's *The Social Conquest of Earth* (García Landa 2012).

humans: "There is a correlation between social group size and the volume of the neocortex in primates which suggests that it has been the need to manage the complex social world in which primates live that has driven the evolution of ever-larger brains" (2004: 72).

One of Dunbar's most original suggestions is that the development of the brain can be mathematically correlated with the development of complex intentionality in our ancestors in order to make informed guesses about the cognitive abilities of early humans and hominins based on statistical data:

These suggest that third-order intentionality would have appeared for the first time with *Homo erectus*, around two million years ago. Fourth-order intentionality, however, would not have made its appearance until sometime around 500,000 years ago when archaic *Homo sapiens* (our own species) came on the scene. Because brain size continues to increase dramatically in the human lineage, fifth-order would have followed fairly quickly on its heels. (2004: 75)

The appearance of fully developed intentional ability is dated by Dunbar around two hundred thousand years ago—which is the age at which most paleoanthropologists tend to situate the origin of anatomically modern Homo sapiens.

In spite of the unquestionable interest of these suggestions, Dunbar's account may be underestimating the role of language (which is after all a representational instrument, among other things) as a part of the social universe of (early) humans, and as an driving force in the structing of the brain. Conversely, Bickerton's insightful theory of the origin of language within this social universe may be lacking a corresponding emphasis on the theory of mind whose development is necessary to account for typically human social interaction—the kind of emphasis that we do find in Dunbar. A greater emphasis on the cognitive role of language is placed by other evolutionary theorists such as Terrence Deacon or Beorlegui.⁶ Still, a more elaborate account of the complex dialectical structuring of intentionality in the human world would have to take into account the work of philosophers such as Merleau-Ponty on the phenomenology of experience (1945, 1993), a task we cannot undertake within the scope of this paper.

An interesting chapter of *The Human Story* is devoted to animal cultures. Dunbar reviews the different varieties of gathering in ants, and the diverse abilities for tool use among chimpanzees, depending on their population of origin. These are culturally transmitted developments, however elementary they may appear to be. But advanced cultural development and its transmission necessitates the existence of language and of intentional abilities higher than those of apes.

⁶ Bickerton (1990; 2009); see also my comment on Bickerton 2009 (García Landa 2010). Deacon's contribution on the coevolution of language and the human brain (1997) has been highly influential. Beorlegui notes both a continuity and a rupture between the cognitive worlds of higher animals and humans: "Hay una continuidad en el aspecto cognitivo, en la medida en que la conducta animal y su capacidad para transmitir señales a sus congéneres están basadas en su específico nivel cognitivo, situándose de todos modos el ser humano en estos campos a una distancia ciertamente apreciable. Pero se da también una ruptura y un salto cualitativo desde el momento en que el lenguaje hablado que poseemos los humanos representa una distancia cualitativa tanto en el aspecto fonético, semántico, sintáctico como pragmático" (2011: 281). My translation: "There exists a continuity in the cognitive sense, insofar as the behaviour of animals and their ability to transmit signals to their kind are based on a specific cognitive level, with human beings at any rate at a considerable distance in this respect. But there is also a rupture and a qualitative break given that our human language is qualitatively distant in phonetic as well as semantic, syntactic or pragmatic terms".

It is at this point that Dunbar introduces a Shakespearean example to show the way in which human cultural understanding requires an elaborately hierarchical intentionality.

When Shakespeare wrote *Twelfth Night*, he *intended* [1] that his audience should *realise* [2] that the much derided Malvolio *believed* [3] that his mistress Olivia *wanted* [4] to marry him instead of his being her servant (with the levels of intentionality once again marked in numerical order). And in writing *Othello*, he *intended* [1] that his audience *realise* [2] that the eponymous moor *believed* [3] that his servant Iago was being honest when he claimed to *know* [4] that his beloved Desdemona *loved* [5] Cassio. Shakespeare's literary efforts were a fourth- or even fifth-order task—and fifth-order tasks, as we saw in Chapter 3, are exacting and challenging even for humans of above average intelligence. Even if a chimpanzee could speak, it would not be able to follow the convolutions of the plot—despite the fact that, to do so, it would need one level of intentionality above second-order are anything other than a purely human preserve. (2004: 162)

As noted above, it is unlikely that this account corresponds to the way things actually work out even if we accept the analytic usefulness of the theory of accumulated intentional levels simply stacked one on top of one another. Arguably, some instances of ape behavior as described by Dunbar himself would seem to suggest a more complex intentionality than he allows for—but I will not go into this issue, and will concentrate instead on the complexities of the intentional structure of literary works.

Dunbar's account of the levels of intentionality involved in literary communication is inadequate. Intentional levels cannot be stacked or embedded in the neat way assumed here. Rather, intentionality functions in the shape of complex packages, conventionally orchestrated through communicative genres and situational schemata which are to a large extent ready-made. These structures organize cognition so as to allow interactants to manipulate complex intentional structures without having to be consciously aware, at any given moment, of each individual level of intentionality involved in the structure or contained by it—the intentional levels come, so to speak, by default as part and parcel of the communicative genre being used, or with the communicational frame assumed or negotiated for the occasion.⁷

Observe that in the case of *Twelfth Night* the situation is far more complex than Dunbar's description would suggest. Maria and Sir Toby are preparing a trap for Malvolio so that he may come to believe that Olivia loves him, and this scene is funny precisely because we see it both through Malvolio's eyes and through the eyes of the plotters who control the scene—setting one perspective against the other, and thus seeing Malvolio's "theory of mind" from their higher cognitive perspective—*and*, at the same time, because we are seeing the plotters from above as well, from a spectator's position designed by the drama's presentational structure. So the levels of intentionality would multiply. One must suppose that the audience enjoys seeing how Malvolio acts manipulated by a message he has found, one supposedly written by Olivia. But the mere setting of that trap assumes the nesting of a whole series of levels of

⁷ Two useful accounts of frame theory can be found in Goffman (1986) and Tannen (1993). In (2008) I expound a theory of social identity and subjectivity based on Goffman's account of the experiential managing of frames.

intentionality: the spectator *observes* how *Maria plans* that *Malvolio will believe* that *Olivia loves him.* Maria's acts also seem to be guided by a plan whose ultimate objective is not just ridiculing Malvolio, but also seducing Sir Toby, so the full understanding of the scene has to take into account Sir Toby's observation and Maria's calculations on the effect this will have on his appreciation of her abilities for mischief and wit.

Viola's disguises give rise to even more complicated situations. Shakespeare *designs* a dramatic situation for the viewer to enjoy *watching* how Olivia *believes* that she is getting married not to Sebastian but to Cesario—a situation which is amusing for the spectator because Cesario is *hiding* a secret identity (that of Viola, sister to Sebastian)—so that it turns out that Olivia's mistaking Sebastian for Cesario is not only amusing as such: the spectator is also amused by what is *not happening* but Olivia believes *is happening*—luckily for her, because otherwise she would be getting married to a woman... or a boy actor would be getting married to a boy actor... etc.

Because in this description of the intentional complications in Shakespeare, we are taking for granted, and not even mentioning (Dunbar does not mention it, at any rate), the intentional structure of any dramatic performance. The spectators are not seeing directly Viola disguised as Cesario, since they are not in Illyria; they see an actor (or actress) disguised as Viola disguised as Cesario. The dramatic performance presupposes yet another intentional level which goes unmentioned in Dunbar's analysis, and is one of those intentional package deals we mentioned before: the proof that it can be taken as a package deal lies precisely in the fact that there has been no need to mention it in order to analyze the work. Moreover, given that in Shakespeare's theatre women's roles were orginally performed by boys, there is a further intentional twist in the scene which gives rise to much sexual double entendre; Shakespeare's comic dramatization and deconstruction of the gender roles reverts (through the ubiquitous "life as a stage" metaphor) on the spectators' intentional positioning of the actors and of themselves as gendered subjects.

Similar complexities arise with Shakespeare's elaborately poetical use of linguistic communication. Language as used in everyday discourse is in itself a complex intentional system—all the more so when we go into the complexities of deliberately artful and figurative uses of language, irony, indirect speech acts, etc.—which are not precisely lacking in *Twelfth Night*. Let us take, for instance, the conversation between Viola (disguised as Cesario) and Feste on the subject of—a chevril glove? or whatever:

3.1. Enter Viola as Cesario and Feste, the clown, with [pipe and] tabor.

Viola Save thee, friend, and thy music. Dost thou live by thy tabor?

Feste No, sir, I live by the church.

Viola Are thou a churchman?

Feste No such matter, sir. I do live by the church for I do live at my house, and my house doth stand by the church.

Viola Thou mayst say the king lies by a beggar if a beggar dwell near him, or the church stands by thy tabor if thy tabor stand by the church.

Feste You have said, sir. To see this age!—A sentence is but a cheverel glove to a good wit, how quickly the wrong side may be turned outward.

Viola Nay, that's certain. They that dally nicely with words may quickly make them wanton.

Feste I would therefore my sister had had no name, sir.

Viola Why, man?

Feste Why, sir, her name's a word, and to dally with that word might make my sister wanton. But indeed, words are very rascals since bonds disgraced them.

Viola Thy reason, man?

Feste Troth, sir, I can yield you none without words, and words are grown so false I am loath to prove reason with them. (...)

The "cheverel glove" exchange becomes especially significant in yet another direction for scholars who remember that Shakespeare was the son of a glover, or who take Feste as a theatrical symbolization of players and entertainers generally, or of Shakespeare in particular, and so construct yet further levels of private or reflexive allusions in the scene ("dallying nicely with words"). The complex linguistic and cognitive intentionality of scenes like this one also goes unmentioned in Dunbar's account.

How many levels of intentionality, counted one by one, might we find in a single speech of *Twelfth Night* pronounced by Viola-Cesario, or by a (here hypothetical) boy actor performing the role of Viola-Cesario, if the speech contains figurative expressions? For instance, the speech (2.4) in which Viola hides her feminine identity from Orsino in the very act of revealing it, by saying about a sister of hers who supposedly pined away in love, and maybe died— "I am all the daughters of my father's house, / And all the brothers too; and yet I know not"—a phrase which, although it is produced as an evasive answer to Orsino's question about Cesario's "sister", is nonetheless *unintentionally* ironic, since Viola's twin brother Sebastian has not drowned as Viola believes, and has already reappeared in the play for the audience's benefit. Moreover, Viola is using her imaginary sister not just as a private remembrance of her brother, but as a displaced image of herself pining in desperate love for Orsino. If we begin to count the boxings and embedding, we may easily end up with twelve or fourteen levels of intentionality, depending on how finely we describe the phenomenology of fictional playacting—perhaps too much for a play.

And no doubt this is too much for a primate: it turns out that one of the greatest inventions of the human primate has been the complex orchestration of intentionality through *schemata, frames, genres...* in order to allow the navigation and managing of complex intentional situations and semiotic objects without possessing a supernaturally enhanced consciousness, powerful and aware enough to deal with onion-like intentional layers, or without developing a frontal lobe the size of a watermelon.

One standard case in which the possible complexity of intentional structures becomes visible, and one which highlights the element of recursive embedding, is found in multiple narrative insertions, or many-tiered metadiegetic narratives (Genette 1983). The nested intentional levels as described by Dunbar makes us think of the archetypal cae of a story inside a story: narrator A introduces character B who tells a story in which character C tells a story in which character D narrates... Her we soon find the limits pointed out by Dunbar, in which only a few levels can be actively managed by conscious attention. But

these narratives also presuppose the complex intentionality of linguistic communication, and more specifically of literary prose fiction—with an implied author and a historical author besides the aforementioned narrators. Here the structure of literary communication is like a scaffolding on which the complexity of the different narrative levels is played out, but this scaffolding which holds together the complex intentional structure is, in turn, yet another complex intentional structure. There are literary works which exploit multiple narrative insertion to great effect. *Don Quixote* may serve as an example, and also the *Manuscript found in Saragossa* by Jan Potocki.⁸ The intersecting narrative levels in this work are difficult to follow, and the personal narrative of one character may be unexpectedly interrupted not by his immediate audience, but by a speaker from a lower level of embedding, retaking a narrative frame that we had forgotten for the time being. In *Lost in the Funhouse* John Barth takes this structural effect to a parodic and grotesque extent in his story "Menelaiad". Narrative insertion, by the way, is only one of the ways in which an ontological level of fictionality may be embedded within another (see García Landa 1994).

A recent and successful film directed by Christopher Nolan, *Inception*, is based on a similar kind of multiple narrative insertion—in this case, dreams within dreams, but dreams which can be directly accessed and experientially shared by the characters.⁹ As in the case of the *Manuscript found in Saragossa* or "Menelaiad", part of the difficulty in understanding the film and following the plot consists in keeping the various levels of insertion tidied up and well differentiated. It is a kind of mental gymnastics which some artists offer to as as a game or a challenge—but such constructs of complex intentionality are built on equally complex intentional constructs, which are mistaken for solid ground as we experience media and complex communicative events.

The human world we inhabit is made of shared intentionality, and in our experience there is no solid ground to stand on, which is not already structured by congealed intersubjective intentions, intentional social structures which frame and structure our action and actually constitute the substance of the social world we inhabit. This is in part what Derrida meant when he said that *there is no outside the text*, we cannot see language or semiosis from without, nor reality unstructured by language and semiosis.

To conclude: in practice we often cannot distinguish clearly a first-level instance of mind reading from a second-level one, because in the human world we are *always already* (to quote the deconstructionist phrase) within an intentionally structured world, a world in which we cannot begin to read other people's intentions, or stop reading them, because the very world we tread is already a mentally generated, social, cultural, intersubjective world. The "external" world we appear to move through is a mental landscape we take for granted, and for brevity's sake, or mistaken by a reality effect, we often refer to it as a merely physical world—perhaps yet another way of making complex intentionality manageable. Conversely, we travel through our inner world, our own thoughts and subjective experiences, by forgetting it is a social world: we read our own mind as if it were merely our own, rather than the

⁸ See my essay on Potocki's novel (2010d).

⁹ See my review of *Inception* (2010c).

experience of a socially constituted communicative mentalscape.¹⁰ There is more intentionality than we tend to assume, in the human world of history, society and culture—layers and layers of it, and more levels come to light the closer we examine any cultural artifact, or the mere workings of our own mind—

Meanwhile the mind, from pleasure less, Withdraws into its happiness : The mind, that ocean where each kind Does straight its own resemblance find ; Yet it creates, transcending these, Far other worlds, and other seas ; Annihilating all that's made To a green thought in a green shade.

(Andrew Marvell, "The Garden")

The mind contemplating... itself? another mind? Nature? Rather, a mental hall of mirrors, or a mentalized natural world, which reaches us already as an interactional mental space, shaped and infused with human intentions, actions and values.

¹⁰ The argument for the inherent sociality of human experience put forward here can be likened to those put forward in other intellectual traditions, for instance in Beorlegui (2011) who combines phenomenological hermeneutics and evolutionary theory; in Bakhtinian dialogism (Bakthin 1981), or in symbolic interactionalism (see my paper on Goffman, 2008). A similar insight is formulated in the language of cognitivist psychology by Mark Turner in "The Scope of Human Thought". See also my note on the notion of language as virtual reality (2009).

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