#### 05-036-TCS faltam ref bibliográficas Dores

# **Damasio's Error – homage to a source of inspiration** Abstract

The 80's developed the Sociology of the body and the Sociology of emotions. Both thematized "embodiment" and argues that traditional specialized social theories are not useful to understand body or emotion, as social study objects.

My proposal is to consider a review of classic sociological intuitions about embodiment, taking in account the new understanding of cerebral neurobiology of emotions and feelings, personal and social. The present essay refers to a study of the Damasio's theory applying to social emotions, developing it to look at sociological fields, as politics of modernity.

Human beings are mutable beings, according to our genetic special ability to adapt. We adapt, as persons and groups, by conquering Nature but also by transforming our bodies and our minds and souls in adequate manners we feel and we know useful for each occasion. The social study of human feelings (the key of human transformism out of redutionist rational choice theory) is not only a new subject: it is best a proposal for a theoretical turn in Social Theory To do that we can take the same path of neural biology turn proposed by Damasio.

# Damasio's Errors – homage to a source of inspiration

#### António Pedro Dores

"Of all the mental phenomena (...) feelings (...) are the least understood (...). This is all the more puzzling considering that advanced societies cultivate feelings shamelessly and dedicate so many resources and efforts to manipulating these feelings with alcohol, drugs of abuse (...)" Damasio, 2004: 3-4.

Shame. That is what I felt as I read Antonio Damasio's most recent book, which discusses the difference between feelings and emotions. The emotion of shame was

<sup>&</sup>lt;sup>1</sup> Antonio R. Damasio becomes one of the rare scientific best-seller authors at the turning of the century. He begins with *Descartes' Error: Emotion, Reason and the Human Brain*, Grosset/Putnam, New York, 1994; (hardcover); Hayrer Collins, New York, 1995; (paperback). After its tremendous success worldwide, he returns to the public with new best sellers and more and deeper thinking, building a charisma felt by scientists of very different specializations, such as social scientists and computer and robot scientists: *The Feeling of What Happens: Body, Emotion and the Making of Consciousness*. Heinemann: London, 1999 (see review of the book by Bruce G Charlton MD Reader in Evolutionary Psychiatry

at <a href="http://www.hedweb.com/bgcharlton/damasioreview.html">http://www.hedweb.com/bgcharlton/damasioreview.html</a>) and with Looking for Spinoza, Harcourt: 2003.

<sup>&</sup>quot;Damasio, Antonio - (b. Portugal. Ph.D.). In his research on practical decision making, Damasio draws an intimate connection between emotion and cognition. He presents a "somatic marker" hypothesis which explains how emotions are biologically indispensable to decisions. Currently, Damasio is a neuroscientist in the College of Medicine at the University of Iowa. (...) His research on patients with frontal lobe

sparked off because of the way the scientist framed the presentation of his thesis within the story of his personal search for one of his sources of inspiration: Spinoza.

Emotions provoke thoughts on the altered state experienced, which can bring about feelings. This was what I learnt from reading, at the same time as I reflected. Is reflection a feeling born of other feelings? Is it a search for new feelings or for the reworking of old ones, both positive and negative?

To explain this feeling of shame, I thought of the way I value those who follow some kind of passion, in this instance, an intellectual passion. It is something outside myself, a sort of collective Durkheimian conscience, that drives me to this kind of appreciation: is this a Judaeo-Christian civilizational prescription that shapes us? In any case, having examined the feeling, the response of the emotions in my whole body, physical and mental, was one of guilt and shame. Guilt for not having been as single-minded as Antonio Damasio in promoting my principal sources of inspiration.<sup>2</sup> Shame at not having taken advantage of the passing of one of them through Lisbon to offer him a word of thanks, a positive response to his scientific intervention in the area of Sociology, so little recognised and so often criticized, just like Spinoza except in its proportion.<sup>3</sup>

How do feelings change humans?

Having identified the feeling(s), or the essence of it/them, the way is open for redemption and reorientation through the use of reason. Thus hereafter, in identical circumstances my reaction will be different – this is what I must have told myself. But will I in fact be in a position to achieve this? In real terms it is impossible to respond to this with words. Future practice will say whether or not I will be able to fulfil this desire to make changes in myself.

How far are these emotions and feelings experienced in the present going to be recalled and imposed on other occasions, or are they going to be ignored in the chest of forgotten memories? It is possible that a feeling of willingness may emerge, if the particular case sufficiently affects self-esteem (the intimate relationship between mind and body) and if the thoughts about what has happened occupy the necessary mental and procedural energy to set off a process of deeper systematic reflection – in which the time necessary to lead to practical effects depends on the capacity for concentration (which in turn depends on previous practice in making personal and social changes), on availability and ability to use time in consecutive experiential modules, on establishing interest objectives, for example in the professional area, so that benefits can be anticipated and thus all work can be sustained rationally. Upon these conditions, it is increasingly likely that future emotions and feelings will be firmly lodged in the memory, available for

damage indicates that feelings normally accompany response options and operate as a biasing device to dictate choice. (...)"

Dictionary of the Mind edited by Chris Eliasmith

at http://www.artsci.wustl.edu/~philos/MindDict/index.html

<sup>&</sup>quot;The neurobiology of the mind, specifically, the understanding of the neural systems which subserve memory, language, emotion, and decision-making are his research interests and "disorders of behavior and cognition" and "movement disorders" are his clinical interests" by the author himself,

at http://www.uihealthcare.com/depts/med/neurology/neurologymds/damasioa.html.

<sup>&</sup>lt;sup>2</sup> Seemingly, such an omission is not unusual. At least Damasio has found it in Spinoza and Einstein. If these were the only two, it might appear that the ability to inspire was an attribute exclusive to geniuses. This is not, in fact, the case.

<sup>&</sup>lt;sup>3</sup> The reference has a name: Francesco Alberoni, author of texts that have marked my sociological training (Genesis), an author looked down upon by many sociologist colleagues.

association with life situations and self-assessed personal prestige. Who knows which is the more effective cause of change – whether it is the impacting of reality or the will of the agent.<sup>4</sup>

According to the author, the values of dignity and intellectual and political firmness, at the cost of a certain puritanism in day-to-day living, which Antonio Damasio found in Spinoza and to which he attests for us, result from the personal choices of this Enlightenment philosopher in relation to the social choices that were imposed upon him: between Judaism and Christianity, but without which, both of them, Spinoza obviously could not be accepted in Dutch society, the most tolerant of its time. Through philosophy, he created an entirely separate world, made of written words and books for publishing (in the hands of a clandestine publisher, who dedicated a part of his life to this task), in the hope that one day, after his death, his life would be taken up by whoever might wish, as did Damasio, to honour his name and his self-esteem.

## Special and common human beings, higher and lower spirits

The challenge was, and continues to be formulated as follows: Is each soul, any soul, autonomous and does it survive the body that imprisons it? Or are states-of-spirit<sup>5</sup> more elaborate and innovative, experienced by special beings, that may, through social movements, perpetuate their memory? The struggle goes on and Antonio Damasio takes sides, like Spinoza, in favour of the latter option, while forgetting about, or dropping, what happens to those whose witness includes nothing new for humanity, the majority of humanity.

The majority of human beings do not use any means of recording things, like books, to commit themselves personally to humanity. On the contrary. Such work is often considered superfluous and even perverse and secret – when thinking about bureaucracy or police information and espionage, for example. Even most of the artifices used by intellectual professions (which have grown significantly in recent decades)<sup>6</sup> are used

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<sup>&</sup>lt;sup>4</sup> The philosophical dilemma over which to give priority to – to reality or to the way in which humans conceive reality (system or agent, as sociology questions) – has produced radicals of one or other position, materialists and idealists, realists and utopians. In the formulation given here, we are left with the notion that, on the one hand, it depends on the situations concerned which of the factors predominates – for example, someone who is deluded tends not to be a reliable observer of reality: there are those who see themselves as harmed by this, but there are those that cope with it perfectly well, provided they are in a position to live this mental state in security – and, on the other hand, it also depends on how each individual human being functions and in what phase of life – for example, puberty provokes stimuli that make reality more alive and whimsical at the same time, which can be dangerous but which is not without its attraction, especially in a post-60s, Western culture.

<sup>5 &</sup>quot;states-of-spirit", é mais complicado, embora também me passou pela cabeça a expressão "states-of-mind". Mas há dois problemas com esta última: 1. a frase anterior fala do "soul" e é o "spirit" e não o "mind" que está relacionado com isto - e "spirit" pode assumir um significado bastante mais amplo do que "mind", o que acho mais útil aqui; 2. em Inglês, como em Português, "state-of-mind" está ligado com questões psicológicas (mas psicológicas e não psiquiátricas (onde se fala mais em "mental state", não se tratando duma doença como tal mas sim dum estado temporário, mais próximo de 'humor') - fala-se muito, por exemplo, do "state-of-mind" de uma pessoa ao cometer um crime, eventualmente para desculpar um comportamento antisocial, diferente, em princípio, do comportamento normal, social, habitual dessa mesma pessoa. Não me parece ser o significado pretendido no teu texto. Por estas razões, acho melhor manter o "states-of-spirit". Nota do tradutor.

<sup>&</sup>lt;sup>6</sup> See Almeida 1994 and Costa 2000.

anonymously by them, as representatives of scientific and professional disciplines. They seek to interpret and to act, as in the theatre, without feelings. Only with emotions that have become routine. As if this were possible! But indeed it seems that this is precisely what professionalism is: the separation of a free personal life and a subordinate professional life, in which respect for professional secrecy is a demonstration of its effectiveness.<sup>7</sup>

As a matter of fact, an important current in symbolic interactionism uses the theatre metaphor to exploit this social duplicity, more usual among human beings than is originality. 8 For the commitment made to the workings of a bureaucratic system is made not by a person (to whom every liberty is judicially guaranteed outside the professional context) but by a profession and an organization, on behalf of which the professional uses socialized systems of recording in a routine fashion (nowadays almost always in electronic format), with feelings contained and repressed within. Among these, rare are those who 'go and free themselves from the law of death', and are prepared to assume responsibility personally for the courage required and the risks involved in making extraordinary declarations. Rarer still are those who, like Spinoza, call historicity directly into question, to this end refusing, as Damasio explains to us, the benefits of the opportunities of social integration.

## The magic of human communication

A personalized record is a form of commitment of honour, not only of the author to him or herself, but also to the reader. The latter, just like God, being potentially omnipresent, in the sense of the *Panopticon*. <sup>10</sup> The author, virtually absent behind the work, <sup>11</sup> exposes social taboos and secrets, the dark side of life, in a positive light – optimistic about humanity's ability to overcome its own limitations – or in a negative light – pessimistic as to the limits to humanity's capacity for change within a reasonable space of time. Spinoza circumvented the pessimism that separated him from the world by freezing his spirit for the future – since it would bring him difficulties in the present – in much the same way as they now endeavour to do with the bodies of certain American visionaries.

Readers may serve as accomplices, as would be expected of a political manifesto, as assessors, like the hierarchical chiefs, as appreciators, like spectators, or all of these

<sup>&</sup>lt;sup>7</sup> The discussion of repeated violations of judicial secrecy in Portugal reveal a lack of clarity as to circuits of information that ought to be controlled but which are not. The same could be said of stock-market. business and technological-industrial information. Whether because of bureaucratic disorganization, or abuse of institutional powers, used also for personal ends, these examples serve to expose limits on the mode of functioning and the value of rules of professionalism in social modernization.

<sup>&</sup>lt;sup>8</sup> See Kuhn (1970), who separates the normal work of scientists, submitted to a dominant paradigm, and the exceptional work that strives against the paradigm and is innovatory.

<sup>&</sup>lt;sup>9</sup> This is a very notorious phrase of Camões, the symbol of Portuguese poetry and the better symbol of Portugal it self.

<sup>&</sup>lt;sup>10</sup> Cf. Foucault (1975).

<sup>&</sup>lt;sup>11</sup> The Author, in a sense, plays the role reserved for the Devil in theological theatre. Like a fallen angel, he contests the divine word by registering his own thinking, in writing, for the life that is to come after the physical death. The ambition of reproduction after death of a personal vision of things for the orientation of the generations to come may be seen as bearing a certain similarity to the resurrection of Christ – and therefore blasphemous. The struggle for the possibility of publishing scientific works was initially the struggle to publish without censorship, while at the same time what was non-scientific was stigmatized – magic, philosophy, metaphysics and also the exotic, cultural products of other civilizations - and marked out a secular area impervious to the theological area, the former materialist and the latter spiritual. In this respect, see Neves (2004).

together, as in the scientific world. Authors, in ever increasing numbers in advanced societies, function as the feelings of media mechanisms. These mechanisms are the product of a broadened awareness, sometimes professional, portions of a social awareness potentially bureaucratized, made material in products whose classification and circulation are submitted more and more to superabundance, to an excess of information, to its industrialization and to its banalization – *media* and feelings, both being devalued, by the sophisticated exercises of the manipulatory social powers of emotions, public and private. <sup>12</sup>

#### Error 1

Who can feel recompensed for virtue? And who can feel sanctioned by shame? Here, while not intending any fundamental criticism of the theses that he advances, I cannot concur with Antonio Damasio's optimism. On the contrary. To the neurologist who had the lucidity to draw the limits of the biological explanation on the limits of the social sciences, social theory ought to know how to bring about a correspondence to this epistemological opening with appropriate openings within its own subject area. One of these must certainly be the capacity to confront ethical dilemmas without moralizing preconceptions, recognizing – because this is what corresponds to the day-to-day experience of any human being – that goodness and evil are equally natural in the practices of the human personality, both being potential sources of pleasure-happiness and pain-sadness, depending on the individual in question, the phase of life he or she is going through and the circumstances in which this occurs, and also on who is assessing it. 13

# **Damasio and Science**

Antonio Damasio is a man who publicizes scientific knowledge, which he does because he wishes to make known the innovative results of the latest research in his area, something in which he also takes part. The contents of his research – the neurobiology of human feelings – constitutes a rebellion of the scientist and science against its own limits, including a petition to work alongside the social sciences. In writings of excellent quality he brings us the history of scientific constructs front-stage, as literature aimed at the general public and as scientific document, aimed at overcoming bureaucratic, scholarly and academic barriers between areas of knowledge and hence also between these barriers and the reader. In order to challenge taboos and secrets.

To close the circle, the object under scrutiny is the emotions that form the basis of the art of romancing but also, and this is its greatest novelty, that lie behind the struggle for the advance of science, on both sides of the dissecting table of the human brain, in the era of electronic brains. Through the philosophical involvement of the neurologist with Spinoza, a fellow traveller, also an intellectual émigré, the human being is observed in what is essential to him- or herself: a physical and social nature coordinated in an

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<sup>&</sup>lt;sup>12</sup> On this question see David Lyon (1994), Castels (2004), Wacquant (2000) and Bourdieu (2001).

<sup>&</sup>lt;sup>13</sup> On this question, see Dores (2003a and 2003b). These texts were produced thinking about overcoming the problems posed, for example, by Norbert Elias (1997) when he recognizes as relevant the criticisms levelled at him for only considering the civilized side of civilization and ignoring the bellicose side, which turned the 20th century into the era of greatest slaughter ever experienced by Humanity. His response merits attention: in the long term, it may be possible to identify a development up to the present of capacities of emotional contention in people and societies; in the short term, it may include perversities like the modernizing character of the exercise of Nazi power in Germany, which for ideological reasons is not generally recognized. Thus spake an illustrious sociologist, as if in a testament.

immaterial, spiritual manner, built as a social experiment in the history of natural selection. The paradise of organic intuition, which deserves to be recovered in the light of new knowledge and new challenges.

When the frontiers of knowledge are to be crossed, unsurprisingly, the social nature of human beings ('social emotions') emerge in Damasio. This is particularly explicit when all the social sciences enter the lists, in the form of an appeal to provide continuity to the effort of clarification about the mechanisms and conditioning factors, the emotions and feelings, of human behaviours that derive from the functioning of the brain. It is a study of the potentialities of reason and of the emotional bases of human life, which is the same thing — a study also of the scientific taboos that have made it virtually impossible, up to the present, to carry out research of this kind, as the author verifies.

## Feelings and sociology

Antonio Damasio has not only revolutionized neurobiology, through the introduction of a set of epistemological ruptures – ultimately obvious, as he himself discovers. He challenges social sciences to conform to a new paradigm, which, coming, as it does, from hard science, virtually has the status of an order. Let us see what is to be learnt from this.

His thinking makes three great epistemological contributions with regard to human feelings, all of which may be identified in *Looking for Spinoza*, namely: a) the scientifically based rupture with the paradigm of the duality of body and mind; b) the new regime of complexity thus arising in the sciences and the need to develop a transdisciplinary approach between hard sciences and social sciences; c) the production of clear and operative analytical frameworks capable of framing contents pertinent to these objectives.

- a) "We usually regard our mind" says the author, "as populated by images or thoughts of objects, actions, and abstract relations, mostly related to the outside world rather than to our bodies" (Damasio 2004: 214). Is that the basis of modern rationality? Is that why medicine is the only science (or is it engineering?) that is authorized to research the human body, to the exclusion of all the other humanities? "The reasonable candidate for the title of critical elementary 'particle' of our living organism is a living cell, not an atom" (*id.* 128). If this does not admit of any kind of spirituality, "(...) both body and mind were parallel attributes (call them manifestations) of the very same substance." (*id.* 12), an organic substance.
- "(...) Most of [what I grew up believing about feelings] simply was not true. For example, I thought that feelings were impossible to define with specificity, unlike objects (...) feelings were out of the scientific picture. (...) As was the case with consciousness, feelings were beyond the bounds of science (...)" (id. 4). And what ideas did Damasio find to verbalize this discomfort he felt at the self-limitation imposed by modern science, if not those of the master sociologist Durkheim? "Social and political contracts" says Damasio, just as Durkheim might have said, "are extensions of the personal biological mandate. We happen to be biologically structured in a certain way mandated to survive and to maximize pleasure rather than painful survival and from that necessity comes a certain social agreement. It is reasonable to hypothesize that the tendency to seek social agreement has itself been incorporated in biological mandates, at least in part, due to the evolutionary success of populations whose brains expressed cooperative behaviours to a high degree." (id.: 172-173). For a neurobiologist searching for complexity, sociology would seem a good place to start. And indeed it is. Though with a more advanced framework of reflection already available to it.

The sociologies of the emotions and of the body are recent specializations, from the eighties, which have experienced certain difficulties in asserting the epistemological rupture that they each pursue, perhaps because they have not yet managed to join forces over an obvious common concept: the incorporation of social impacts (of emotions, of fashion, of stigmatization or of identification) on individual bodies and minds. With a view to their doing so, it would be a good idea to bear in mind Damasio's lesson: the mind concerns itself, has always concerned itself, daily with the body of which it forms part. And it does so as a basic, automatic task, precisely through the emotions, inborn or acquired through learning. What sense would it make, then, to separate the social study of the body from that of the emotions?

b) "The genome makes certain that all of these devices [such as crying and sobbing] are active at birth, or shortly thereafter, with little or no dependence on learning, although as life continues learning will play an important role in determining when the devices are deployed. (...) The innate equipment of life regulation does not aim for a neither-here-nor-there neutral state midway between life and death. Rather, the goal of the homeostasis endeavor is to provide a better than neutral life state, what we as thinking and affluent creatures identify as wellness and well-being." (id. 34-35).

So education, formal or informal, consciously organized or merely convivial, manipulates and transforms inborn devices, controlling them or recomposing them, developing them, in such a way that life may be 'colourful', shall we say, and not a grey sequence of pre-programmed Pavlovian reactions. In this sense, "social and political contracts are extensions of the personal biological mandate" (*id.* 172-173) at a very high level of institutional and formal development, when compared with tribal or communitarian societies.

If this is so, why has sociology so consistently stigmatized the organicism and crossed inspirations originating in biology, which have furthermore been the first to manifest themselves in our own discipline? And, *mutatis mutandis*, why has biology not developed mechanisms to understand social phenomena, which would obviously make waves in the stagnancy that exists between the two sciences?

"(...) science studiously avoided the assignment of feelings to *any* brain system; feelings were just out there, vaporously hanging in or around the brain." (*id.* 111). Likewise we may see that social theory, on the pretext of separating philosophy from theology, has studiously avoided the connection between emotions and feelings, quietly forgetting about themes such as the revolutionary spirit of Marx (a class for itself), the capitalist spirit of Weber or the collective conscience of Durkheim, subverted by themes like alienation, ownership of the means of production, <sup>14</sup> culture, and compensated for by disciplines such as social economics, social psychology and political science. All of these, whether themes or disciplines, conceived independently of specifically human biophysiology, of our special potentials and limitations as living beings, as a species, the unique result, or at the very least an extraordinary one, of the expansion of the universe.

"Notice something quite curious and also chronically overlooked: The nerve sensors that convey the requisite information to the brain and the nerve nuclei and nerve sheaths that map the information inside of it are living cells themselves, subject to the same life risk of other cells, and in need of comparable homeostatic regulation (...)" (id. 129). In other words: in neurobiology too, life is conceived of as being surrounded on all sides by lifeless entities, by inanimate material, to the point that – to facilitate the thought process, as we tend to say – the concentration of scientific attention at a given level of

<sup>&</sup>lt;sup>14</sup> On this specific aspect, see Resnick and Wolff (2004).

reality, in this case corresponding to the dimensions of the human body, the other levels of reality, cells for example, are automatically thought of as being inert, neutral and lifeless. Which is obvious and recognizably false, but which has nevertheless passed unnoticed by several generations of meticulous researchers.

"These nerve cells are not impartial bystanders" (id. 129), continues Damasio. "(...) Body activities shape the pattern, give it a certain intensity and a temporal profile, all of which contribute to why a feeling feels a certain way. But in addition the *quality* of the feelings probably hinges on the intimate design of the neurons themselves." (id. 129). In other words, higher levels of reality, for example the character of whole peoples, have also been thought of as if they were inert, even if there is a full awareness that this is not so. The animation of our human feelings is "the tip of the iceberg (...). The hidden part of the iceberg concerns the animation whose purpose is solely the managing of the life state in the parts and in the whole of our organism (...)[,] the critical substrate for feelings." (id. 129-130). That is to say, human life depends as much on the individual life of cells, of each cell, that make up the human organism, as it does, in another manner naturally, on the environment and social circle, with which we relate through our emotions and feelings.

In the light of this ideologically-constructed, self-isolation of each discipline, which is not only curious but epistemologically significant, we may perhaps draw a corollary, mentioned by Prigogine (1996). Modern sciences have conceived the world as a great system of reversible subsystems, in potential balance to which all imbalances tend, says the author. Yet it is only in the laboratory, precisely by setting up extremely rare, precarious environments, in conditions of the utmost rigour, that it is actually possible to reproduce such extraordinary situations of potential balance. In practice, outside the laboratory, the probability of finding similar situations is extremely remote, since reversibility – and this is Prigogine's thesis – is a particular case of universal irreversibility.

"(...) [F]ew if any perceptions of any object or event, actually present or recalled from memory, are ever neutral in emotional terms", Damasio affirms (id. 93). "(...) the goal of the homeostasis endeavor is to provide a better than neutral life state, what we as thinking and affluent creatures identify as wellness and well-being." (id. 35). See how biology is confronted with ethical dilemmas. This is why social sciences have been stigmatized, as if they were responsible for moral existence or as if natural sciences had overcome such dilemmas or were immune to them.

This is the basis of the act of courage – a highly successful one – that I most appreciate in Antonio Damasio: an act of solidarity with the social sciences and an act of intellectual and scientific perspicacity capable of breaking deeply-rooted epistemological barriers.

- c) "The focus here is on the intrinsic 'machinery of emotion' rather than circumstances leading to emotion (...)" (id. 29) and "(...) positive and negative feelings are determined by the state of life regulation" (id. 131). So, if neurobiology can and should bring about its self-determination through specific, focused objectives, there does not need to be a limitation within this to recognizing the relevant existence of other levels of reality, analytically discernible but demanding empirically effective modes of interlevel articulation.
- "(...) [Spinoza conceived] bodies and minds as made up of components that could be combined in varied patterns across different species. Spinoza was compatible with Charles Darwin's evolutionary thinking." (id. 13). Social feelings may be understood as components existing at given levels of reality that may be characterized by patterns and species.

## Analysis of the real

Damasio distinguishes four levels of reality<sup>15</sup> among inborn, unconscious vital mechanisms (immune responses, basic reflexes and metabolic regulation), at a lower level, and emotions and feelings at a higher level. Social theory may adopt a compatible analytical formulation and add further 'landings', shall we say, to those identified by neurobiological research: a level of everyday sociability, a level of instituted sociability, a level of potentially or actually provoked, perturbed or perturbing sociability.<sup>16</sup> A transdisciplinary approach is thus nothing more than the fine-tuning and syntonization of compatible analytical perspectives and of environments of study (more biological or more social). On the other hand, potential affirmations of experimental or observational stability of one of the levels of analysis does not imply, nor require, the acceptance of theories of universal reversibility. In other words, transdisciplinary scientific synergies should be developed for each discipline so that each discipline may develop within itself, and vice versa.

Reality can usefully be analysed in the form of analytically distinguishable levels. In practice these levels are indiscernible one from another, yet at the same time they are inconceivable other than separately. Damasio shows us this on pages 37 and 45, for example, when he explains the complex sequence in the form of a tree, an intricate but discernible sequence of linked mechanisms that produce emotions and feelings in human beings, to the extent that present-day neurobiology is able to identify, explain and demonstrate this. If we wish to give continuity to this mode of proceeding, but now concentrating our attention on the social level, where material support ceases to be unitary and endowed with an organ of its own – the skin – how should we divide an indivisible social reality so as to make it intelligible, communicable and open to discussion?

Social analysis, continuing Damasio biological neural tough

I would propose a social analysis on three levels, namely the day-to-day level, the social level and the level of dispositions of social intervention.<sup>17</sup> These levels of reality separate social activities directly incorporated within individuals from those that are immaterial, spiritual and mental, some of them being producers of cultural resources and others of extraordinary activities of mobilization.

Each of the levels identified is distinguished from the remainder by various densities and depths, the day-to-day being the most superficial and dense, that of dispositions the deepest and least dense, with the cultural being intermediate between them.

Greater depth predisposes cultural activity to the animation of social action, greater cultural density comes closer to day-to-day culture and transforms the day-to-day and culture, with different potentials for the future. Day-to-day discipline is what sustains the social competences that are actually available, whether for reproduction or for social change.

The formulation that we catch sight of here has the advantage of explaining the power of the word, of culture, of the book, of the Internet. Faced with the day-to-day, cultural activities represent choices – time and intensity of communication – that tear into routines, dense as the lead of social reproduction, with personal and social hopes and

<sup>16</sup> This theme is developed in Dores 2004a.

<sup>&</sup>lt;sup>15</sup> Cf. op. cit., 53 and 63.

<sup>&</sup>lt;sup>17</sup> Cf. Dores 2003e and Dores 2004a.

conspiracies, which make them potentially subversive, independently of individual wishes. It is not that culture is subversive in itself, but rather that without culture there will be less of a basis of maintenance and orientation for social intervention. In these terms, culture functions for the level of dispositions of intervention as does the day-to-day for culture: it provides it with materials – in this case completely immaterial sets of ideas – through which volitive social activities will be organized, whether they be institutional accords or social struggles.

Authoritarian regimes concentrate on their own cultural production, as far as possible – it is what is called totalitarianism, for it endeavours to create a forced syntonization between day-to-day and cultural levels so as to limit social intervention. Democratic regimes choose to govern by giving value principally to cultural diversity. <sup>18</sup> Free social interventions confront one another and generate social dynamics that are institutionally manipulable through concerted action.

The power of culture, of expression, is the fact that it has been chosen among manifold other possible alternatives, which makes it unique. The act of saying to someone "I love you" has a value through the simple fact of being said, as opposed to remaining silent, even if it hides all else – for example, the lack of any passionate feeling or unpleasant facts or perverse intentions. The feeling will always be too intimate and inscrutable, even to the one who says it: words said directly face to face are indeed a rare act, because it is already a rarity actually to communicate, to use the cultural level, when compared with the interminable density of day-to-day living. As Damasio explains to us, the life of the human body necessarily implies a systematic production (in real time, to use informatic jargon) of images of the body imbued with emotions that produce feelings that in certain circumstances become conscious. In still rarer circumstances, now thinking of the social level, they stimulate culturally-articulated discursive expressions in such a way as to lead to an effective communicational episode. If this unequivocally transports the desire to stimulate self-esteem, is the pertinence of the import of the affirmation "I love you" now clear?

# Social analysis of feelings

Not yet. We also need to explain the ease with which such an expression can serve to deceive the person who ought to be benefiting from it, according to the way it has been thus far presented. It is that the cultural level, precisely because it loses density in relation to the day-to-day level, gains greater room to manoeuvre, gains in artfulness. In the same way that black holes form part of the universe in an obscure manner, so too the shady parts of cultures, for example taboos and secrets, fears and guilts, are as important as the expressions uttered. In other words, if the dupe, the sucker, those who are exploited or dominated, if all these let themselves be deceived by appearances, it is because they are not inclined to act explicitly to change their daily lives. They prefer others to do it for them, out of insecurity and lack of direction. They prefer to place their trust in someone who may not in fact deserve it, all the more so if they have not meanwhile found social partnerships affectively satisfactory for their specific needs of self-esteem and intervention.

Love is the capacity that unidirectional or multidirectional support has to assume risks with the purpose of achieving emotional stability. However, this stability may be achieved at different levels of guaranteed emotional exchanges, shall we say, according

<sup>&</sup>lt;sup>18</sup> One of the evils of time, often denounced by social researchers, is relativism. The more absolute, the more inert.

<sup>&</sup>lt;sup>19</sup> Popular saying: "Do as I say, not as I do".

to the individual needs that each has, according to the intensity of personal relationships, according to the kind of age they have reached. The greater the investment of all the emotional exchanges in fewer social relations, the more easily problems or emotional break-ups at this level lead to devastating consequences. These considerations are relevant principally if we are thinking of societies – like our own – in which the tendency to live alone or in minimal nuclear families is evident and strong. And this happens when love-passion, typical of the ideal of the procreating couple in love, is at the same time the social model for sharing feelings and emotions and a source of profound pain – measurable by the number of depressions and divorces we see.

At work too, as is revealed to us by the sociology of organizations with reference to informal organization or the parallel economy, besides the values asserted – for example, by trade unions or by professional or business associations – we find a barrow-load of taboos, secrets, conspiracies, that are unspoken, maintained through social force, through political force but also by force of arms, when it is a case of this. Culture, and particularly the word, is persecuted for revealing the unrevealed, for provoking consciences to criticize the day-to-day, cultural or volitive life. As Alberoni writes, love-passion is subversive. It alters the mental condition of the human being into something else – hoped or enthused for – which previously had no feeling and was directionless.<sup>20</sup>

How are we to distinguish (and why bother to distinguish) in these processes the good and the evil of which Spinoza speaks in his *Ethics* and which Damasio takes up?

#### **Emotions and the modern spirit**

Antonio Damasio distinguishes three categories of "emotions-proper (...): background emotions, primary emotions and social emotions" (Damasio 2004: 43). To "(...) be able to map body structures and body states (...) mental patterns (...) consciousness (...)" of different levels, whether primary or social, is a basic necessity for the occurrence of feelings (*id.* 110). In turn, now specifically at the social level, it may be possible to admit making reference to other differentiated levels in which feelings are also expressed: a basic or day-to-day level, a primary level of culturalized expression through the word, through writing, through the arts in general, and a more structural and rarefied level, a structural level where there is a fixing of dispositives, of emotional stabilization, so that the civilizational processes may use more abstract institutions and instances of decision (and power), progressively wider, both temporally and spatially, whether in the form of nationalism, imperialism, colonialism or globalization.

The characteristic of rarefication of the highest social level signifies a greater scarcity of feelings – the area for the social experimentation of pure reason *par excellence*, in order to give itself greater legitimacy, it imagines and propagates the idea, dominant and structuring, of its independence in relation to feelings, to affects and to emotions. The fact that this is obviously false, as Damasio points out to us, has not impeded the course of this kind of ideas. On the contrary, it is the feelings of the dominant classes vis-à-vis the social repugnance they themselves have felt in relation to the exercise of institutional power and that of the State, <sup>21</sup> particularly with regard to the use of

<sup>&</sup>lt;sup>20</sup> [translator's note: The author's original here hinges on a deliberate double meaning, which it has been necessary to translate twice, as it were, in order to give both. As he himself explains,] there are two elements involved: feeling, as Damasio conceives it, and direction, that is to say the function that the mind fulfils in the human neurobiological design, once again in accordance with Damasio's conception of it.

<sup>&</sup>lt;sup>21</sup> Cf. Hirschman 1997 and Tocqueville 2002, for example.

violence, that have raised to the social level the ideology of the purity of Reason and, by extension, of Science. This theme merits a deeper discussion, which I will not go into here. The present objective is merely to call attention to the strategic importance of love-passion, of the explicit side of culture (sex, violence and conspiracy, among others, also a good deal commented-on in the arts, discussions of the other side, the dark side). The centre of attention for Christianity, passion has little by little become the motto of basic legitimate day-to-day necessity, alongside reproduction and family inheritance, a legitimizing ethical value of cultural and civic practices, for instance at the level of the foundation and social structuring of artistic movements and social movements, 22 and the essential means of legitimizing strategic activities (love-passion for the city that the individual represents, for their country, their class, their profession, for the institutional aims of the institution, etc.). Proof of the polarized emotional ambiguity of which lovepassion forms part (strategic, that is, in its function as a structured and structurizing structure) is the constant existential question of the genuineness of the pure feelings that the citizens of advanced societies daily ask: "am I being sincere with myself and with others?" To translate it into our analytical terms, is the love-passion that I suppose I am or would like to be feeling exempt from aggressive feelings (of violence, hate, vengeance or abuse)? Evidently, there is no practical solution to the problem: this is an emotional condition proper to late modernity, which loathes atrocities against any other human beings (it was not very long ago that colonial regimes felt legitimized in carving up the world amongst themselves) but which cannot help witnessing the continuity of the most diverse forms of violence, in spite of the end of the Cold War, the most diverse kinds of civic denunciation, political declarations of respect for the modern spirit.<sup>23</sup> In the same way, we see that hatred takes the place of love-passion, from one moment to the next, in divorce or domestic violence or child abuse, that the free circulation of ideas, artistic or sports projects, public services and institutions, become competing fields submitted to 'commercial' interests.

#### Modern dualism

The modern spirit is a hydra with two heads: on the political side it conceives pacified markets, free sciences, free professionals and workers, free industries, all making the best of what is on offer, according to the dictates of pure, logical, reductionist, technocratic or positivistic reason. On the secret side, it engenders manipulations capable in practice of interpreting and leading the explicit conceptions along the road of satisfying particular interests, camouflaged or even deliberately deceptive ("the secret is the soul of business", they say) for example through the imposition of connotation taken from the most strategically appropriate social expressions.<sup>24</sup> The puritan spirit of capitalism, classically presented by Max Weber, is an exemplary expression of the modern spirit: as radical and circumspect, in its contemplative mysticism, as in its legitimization of exploitation and competitive differentiation among fellow creatures. Love-passion, in spite of its great appeal at the level of civilization, concentrates on a number of objects and/or objectives that are extremely limited. This is one of the characteristics of this feeling, more fundamental than its potential instability. The objects, viewed from the impassioned perspective, kindle feelings and awaken a sense

<sup>&</sup>lt;sup>22</sup> In order to understand the relation between love-passion and social movements, see Alberoni 1989.

<sup>&</sup>lt;sup>23</sup> Cf. Dores 2003a and 2003b.

<sup>&</sup>lt;sup>24</sup> Cf. Eder (1993), who referred to the growing importance of the cultural struggle within the present-day class struggle, which may in part explain the hypertrophy of this type of activities in advanced societies.

of direction.<sup>25</sup> In some cases in the form of extreme empathy, in other cases fundamental indifference, in still others a loathing that is often extreme.<sup>26</sup> To the dark side, unmentioned, secret, vengeful or simply jealous of the explicit dominant feeling of our civilization – love-passion – we have given the name of prohibitionism.<sup>27</sup>

Another example of modern dualism may be seen in juridical laws: those that are in use and in disuse and also the manner in which laws are used. The judicial institutions receive laws via rules instituted from above and receive cases through similarly instituted procedures from below. They decide in secret, in a Kafkaesque manner, despite the evolution of the age-old struggle to make judicial proceedings public and transparent.<sup>28</sup>

It is in every respect an epistemological programme that needs to be developed, not only at the neurobiological level but also at the level of sociology and potentially other disciplines.

## Neurobiology and sociology

"One of the main traits of civilized human behaviour is thinking in terms of the future (...) the possibility of 'minding' the future. (...) anticipating it in simulated form (...). We trade instantaneous gratification and defer immediate pleasure for a better future, and we make immediate sacrifices on the same basis" (*id.* 146). Here we have a revealing presentation of a work of introspection that could perfectly well be classified as Durkheimian. Durkheim too, with his emphasis on the necessity of giving approval to the new social order, recognized the social division of labour as being a form of dedication to a kind of organic solidarity, a common, shared faith – social conscience or social morality – that each and every one would fulfil their tasks in such a way that in the final account, though all had become dependent on society, each member could benefit from this through the quantity and quality of the results.

This perspective, though much disseminated in standard sociological texts, is easily open to criticism as being ingenuously moralistic (there are many human beings, utterly modern and civilized, whose fundamentally selfish and even exploitative behaviour may even be held up socially as being exemplary, and this does nothing to stop modernity from going on its way) and society-centred (most people, unfortunately, live with necessities that are so pressing that it would be impossible to imagine making plans even in the medium term, given the survival problems that confront them). The middle classes may imagine, for their own comfort, on the one hand, that they have the right to live comfortably and, on the other, are able to do so by relinquishing to the dark side of

<sup>&</sup>lt;sup>25</sup> Once again, as in note 17, there are two appropriate, complementary elements involved [both being translated]: feelings perceived and senses of direction for action.

<sup>&</sup>lt;sup>26</sup> On this question, see Elias 1989, chapter "Cenas da vida de um cavaleiro" [Scenes from the life of a knight]. We may also think of the behaviour of the parents of young children as they seek to find fundamental behaviours in relation to potential dangers and also to affective links.

<sup>&</sup>lt;sup>27</sup> This idea is developed in Dores 2003f. Other references to this theme are to be found in Dores 2003a, 2003b and 2003e.

<sup>&</sup>lt;sup>28</sup> I am thinking of cases such as the fight against drugs – the prohibitionist policy of which coincides with the exponential development of clandestine markets, with the collaboration of recognized and highly prestigious institutions – or in the criminalization of the practices of voluntary interruption of pregnancy – which, in practice, is not taken up, except (how are we to explain it?) in extraordinary cases – or in the struggle against torture and degrading treatment, which continue to be practiced in institutions of the highest security of States that subscribe to treaties of abolition of these same practices – a situation that has become grave in Portugal, according to reports by Amnesty International, and which has exploded, as it were, in the USA and in other countries allied in the occupation of Iraq, in the aftermath of the publication of photos of Abu Grahib prison made known by the criminals themselves.

their minds (and of their social consciences) the miseries of deprived livelihoods, the condition in which an enormous 'minority' of the world's population live.

Bioethics experience and now a day social political problems

One of the advantages that the close collaboration between neurobiology and sociology has is the possibility of remobilizing the anti-racist debate within science, as a means of clarifying the feelings that make racism (or terrorism, or war) a reality, despite the general recognition that it is improper and evil. A first step in this direction would be not to lose sight in our scientific reflections of the enmeshed unity of body and mind respectively, as defended by Damasio. Thus it is essential to denounce the persistence of socio-centric paths (ill-)frequented by social theory, without practical solutions to the most fundamental problems. Priority will have to be given to new directions in research, centred precisely on a greater knowledge of neurobiological but also social mechanisms of emotions, feelings and states of spirit.

"Life being a high-wire act, most feelings are expressions of the struggle for balance (...)" (id. 6-7). In this sentence there is an explicit ambiguity that needs to be stopped in its tracks.

Social theory only exceptionally thinks about death and when it does, it does so by considering it as a specific object. This is not only out of propriety. It is because of taboo.

If social theory conceived of each individual as a being who is born, grows, develops and lives different conditions in the course of a lifetime and thus expresses his or her inborn and acquired competences in accordance with decisions taken and circumstances experienced (instead of conceiving the person as a stereotype, as adult, white, active, in good health, with a reasonable income and male), in this case the complex individuals that we are would also die. Unfortunately, what prevails in sociological thinking is the reductionist, ideologically conforming version of the immortal individual, and this, naturally, has its consequences.

Antonio Damasio's research into life on the 'high-wire' reveals to us how profound is his knowledge of the precariousness of vital stimuli. "(...) The innate equipment of life regulation does not aim for a neither-here-nor-there neutral state midway between life and death. Rather, the goal of the homeostasis endeavour is to provide a better than neutral life state, (...)". Up to this point fine. It is from this point on that I find myself in disagreement: to produce "what we as thinking and affluent creatures identify as wellness and well-being (...) a state of positively regulated life (...)". How is it that "the relentless endeavour ([Spinoza's] conatus) of each being to preserve itself (...)" (id. 35/36) is at the same time a fight for life, never ever neutral, and is always capable of producing a state of well-being? Does it never produce a state of ill-being? Is the latter state less usual or less healthy or less natural than the former?

Exploring Prigogine (1996), we have to learn to take the study of irreversibility further without making of reversibility, of states of balance, more than what they are: ideal types potentially observable in reality, but more useful as forms of anchorage for our theoretical rationales than as expressions between well-being (impassioned?) and illbeing (pathological?). This is the challenge of complexity. Learning to live with uncertainty and yet at the same time figuring it out or comprehending it.

Antonio Damasio's error occurs when he proposes to cross the interdisciplinary barrier, in his tenacious pursuit of social feelings. On this side of the frontier, the side that he knows less well, he accepts the traps that he knew how to bypass and avoid on the neurobiological side. He is betrayed by the ideological barrier that refracts his intuitions

and reflects them towards the field of departure. Interdisciplinary stagnation is institutionalized not only in the organizations that support different disciplines but also by the actual output of each. Not, of course, in the way that the Inquisition kept the humanists in check in the time of Spinoza, but certainly just as effective in its own way. Two sources of error may be identified in Antonio Damasio's work: one arising from the inspiration of Spinoza and the other from that of Darwin.

The notion that "(...) [the living organism] has the natural tendency to preserve its own life" (id. 170) may serve as an explanation for natural selection – the species that could not find the necessary conditions (objective or subjective) did not survive, but it fails to explain individual behaviour. Indeed, this was one of the first perplexities of social theory, when Durkheim questioned how altruism (a positive feeling) could be a source of suicide. The answer that he found is that although it cannot be predicted that a concrete individual will commit suicide, it is possible to predict, with only a small margin for error, how many suicides each society (each age group, each sex, each religion, etc.) will produce, if we may speak in these terms.

"[In] the presence of other living organisms in a complex system of interdependence with our own organism" (*id.* 171), body and mind, society and nature experience and react to each other, live, in real time, sometimes destructively – justice and values being powerless to do anything. Through the empirical observation of the history of mankind, it is not more natural, or even more civilized, for there to be love or war, passion or prohibitionism: all demand a discipline of their own in order to exist and maintain themselves, all happen recurrently – like fires in nature, modernity has had effects of hypertrophy that are well-documented.<sup>29</sup>

#### Error 2

When Damasio writes "The gist of my current view is that feelings are the expression of human flourishing or human distress, as they occur in mind and body" (*id.* 6), it may be that this is documented, even if the automatic mechanisms of inhibition of neural circuits may also have been identified, when there is a risk that pain may irremediably trouble an organism which without it might try to resist a crisis. But when he says, "with only slight variations of accent, on the individual or the collective, directly or indirectly, the ultimate goal of these institutions revolves around promoting life and avoiding death and enhancing well-being and reducing suffering. (...) This was important for humans because automated life regulation can only go so far when the environments – not just the physical but social – become exceedingly complex" (*id.* 166/167), he makes an extrapolation that will not stand up: violence and destruction are instituted at the highest level, because they were among the first institutions to be created, for example the regulating of opportunities for reproduction of more precarious human groups – through the kidnap and exchange of fertile women, for instance, as anthropology has taught us.

Humanity may have broken the cycle of natural selection (which probably only seems to be radical in the light of our ignorance) but, at the same time, man has become a 'wolf-man', to take up an ancient coinage. There is no edifying moral in this,<sup>30</sup> even if it

<sup>29</sup> On this question, see Elias (1990 and 1997,) Hobsbawn (1994) and Dores (2003a and 2003b).

<sup>&</sup>lt;sup>30</sup> "[William] James divided human beings into two kinds: those with cheerful souls, and those with sick souls. (...) Irritatingly, for James, Spinoza appeared to be a cheerful soul, one of those born with 'a constitutional incapacity for prolonged suffering' and 'a tendency to see things optimistically'. For the Spinozas of this world James said: 'Evil is a disease; and worry over disease is it self an additional form of disease, which only adds to the original complaint'" (*id.* 281).

is comforting to those of us more sheltered from social crimes, which have become banal, even everyday, for a significant part of humanity.

If we wish to profane the Pharaonic sepulchre of science, we should proceed with caution and not let ourselves be overawed by the letter of threatening curses. If we wish to go ahead with transdisciplinary work, it is necessary to promote agreement among specialized critics, those that are highly knowledgeable in each discipline and capable of epistemological dialogue. How much humility and willingness is necessary? How can we withdraw ourselves from the hierarchical powers that organize scientific relations?

[English translation: David Cranmer]

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