

Bioethics education on deliberation - a view of a novel: *Blue Gold*, by Clive Cussler

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Abstract:

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Since the focus of Bioethics is the bridge between Humanities and the Life Sciences and bearing in mind that this bridge is often difficult to build, those who believe that this dialogue is important in our days should promote it through Education. By educating in Bioethics it is possible to improve the participation of the citizens in debates on the ethical issues raised by new technologies and scientific research. It is our conviction that literary texts are laboratories of ethical judgment, where the ethical questions concerning specific scientific/technological issues are addressed in an imaginary world. Therefore our purpose is to present a framework for ethical deliberation through the use of literature. Fiction allows us to “practise” ethical decision making, by focusing on the particular cases of the characters of the story and by checking how the principles / theories working at the background apply to the narrated cases.

Keywords: Bioethics, education, ethical deliberation, Literature, responsibility, autonomy/relational autonomy, vulnerability.

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1. The key role of Bioethics: seeing as building

The transdisciplinary nature of bioethics demands different perspectives when dealing with ethical issues. These varied points of view can be grouped under two kinds of approaches, mainly the *wide-range approach* and the *in-depth* one. The former pertains to the global and extensive view of ethical issues by responsible politicians, mass media, inter-disciplinary research groups, opinion makers and lay people; the latter is the basis of the research carried out by philosophers, members of different religions, scientists, medical doctors and bio-ethicists. Both approaches require educating the way we see the world, the way we speak about it, the way we reflect upon it and the way we act (hopefully) according to the steps taken before. Choosing the most prudent and the most appropriate course of action in a particular setting, with and for the others, considering not only the individuals directly affected by the decision, but also their community and the biosphere, was also the project outlined by Van Rensselaer Potter in his papers “Bioethics: the Science of Survival” (1970) and “Bioethics: Bridge to the future” (1971). Potter had a global perspective of Bioethics as a discipline that could set up the bridge between the ethical values of Humanities and the biological facts of Life Sciences, which he considered to be indispensable to guarantee the survival of Human Kind. Global bioethics, which was coined by Potter and later included in the title of one of his works, “Global Bioethics: Building on the Leopold Legacy” (1988), implies a global perspective of ethical issues. In order to understand this concept thoroughly, we need to educate our sight, focusing our reflection not only on the individuals, but also and most importantly on the Other that is part of each individuals’ sense of their own identity. Moreover, education can provide citizens with the tools to participate in ethical deliberation on issues that concern not only the nature of scientific research and doctor/patient relationship, but also the survival of Human Kind with a human sense. Actually, these days Bioethics is considered by many experts as a civic ethics, i.e. as an ethics shared by the members of a community who see themselves as co-authors of the narrative of that society. W. Osswald and M. C. Patrão Neves (2000) believe that the three main reasons for the current role of Bioethics as a civic ethics are: the lack of universal moral foundations, which can either lead to deep relativism or to the search for rules and guidelines

applied to the particular setting under analysis; the Death of God, of the Author, of the unified subject, which has also led to the need of wide deliberation procedures, from different perspectives, which can be achieved by Bioethics due to its transdisciplinary nature; and the setting up of institutions of Bioethics, which has also contributed to its pragmatic role in our days. As applied ethics, Bioethics has a public dimension that has a strong impact on public opinion, providing the citizens with information and formation about the ethical issues underlying different areas of human action. The wide range of resources available in bioethics education provides different tools that can be explored according to the topic under discussion, the subjects participating in the ethical deliberation procedure and the kind of approach used to analyse the ethical issues. Choosing literary texts as a resource for Bioethics education means that this approach must be anthropological, bio-cultural, a revision of ethics as a dialogical search and not as a source of ready-made answers or recipes:

Today logocentric habits prevail, together with a philosophy of education focused on conveying information and training experts, overestimating the pragmatic and the scientific, the efficient and the instrumental, and disregarding the key role played by imagination and memory, which were the basis of the free, critical and creative thought of Greek civilization. (Clavel, 2004, p. 77, our translation)

1.1 Bioethics and Anthropology

The process of deliberation about the individual and collective ends of human life that is part of Bioethics discloses the anthropological framework of this area of knowledge. According to Gracia (2001, p. 230), *Bioethics is inevitably engaged in matters that occur outside hospitals and outside the health care professions, because the ends of medicine derive from the goals of human life and these are primarily social and political.* The dizzying advances in technology and the profound socio-political changes in a world caught up in globalization and multiculturalism stress the Socratic need to know yourself, i.e. know your limits. The more scientific and technological progress advance, the more powerful and the more vulnerable do we become. In fact, vulnerability as potential wound, as probability of getting harmed, is strictly related both to solicitude and power, since being solicitous as well as being powerful places the individual on the fringe of vulnerability. Moreover, the fact that some people are particularly

vulnerable imposes the ethical duty to protect them, thus setting up a link between solicitude and vulnerability, which was first outlined in the *Belmont Report*, in 1978. According to this document, the protection of vulnerable people can only be guaranteed if human action follows three basic ethical principles based on the respect for the person: to obtain **informed consent**, by ensuring that the correct information is conveyed, that it is clearly understood and that the decision is voluntarily taken; to act in such a way as to comply with **beneficence** and **justice** (aiming to achieve equity in the distribution of the resources). This document pointed out the area of experiments with human beings as the main territory of vulnerability, urging for corrective actions. The same need to overcome vulnerability was stressed by Tom Beauchamp e James Childress in *Principles of Biomedical Ethics*, in 1979, with an important difference between these two texts: whereas the *Belmont Report* was based on protective paternalism, Beauchamp and Childress theory underlined the vital role played by the principle of autonomy, implying both an attitude of not interfering with the other's decision and of promoting the necessary conditions for the other's autonomy. The concept of vulnerability was also included in the 1996 revised version of the *Declaration of Helsinki: ethical principles for medical research involving human subjects*, of the World Medical Association (WMA). Furthermore, the *Universal Declaration on the Human Genome and Human Rights* (1997), the first universal declaration in the area of Biomedicine made by UNESCO, stressed the importance of vulnerability as a characteristic of some groups and individuals, mainly within the context of research with human beings.

It was in Europe that vulnerability changed its meaning with the contribution of Emmanuel Lévinas e Hans Jonas, who perceived it not as an adjective, but as a noun. In *L'humanisme de l'autre homme* (1972), Levinas defines vulnerability as the essential condition of humanity, inherently linked with responsibility: *Le Moi, de pied en cap, jusqu'à la moelle des os, est vulnérabilité* (Op. cit. p. 104). Hans Jonas, in *Das prinzip verantwortung* (1979), claims that vulnerability results from the ephemeral nature of all the existent, thus stretching the concept out of the borders of humanity towards Nature:

Qu'on considère par exemple, [...] la vulnérabilité critique de la nature par l'intervention technique de l'homme – une vulnérabilité qui n'avait jamais été pressentie [...] nonseulement la nature de l'agir humain s'est modifiée de facto et qu'un objet d'un type entièrement nouveau, rien de moins que la biosphère entière de la planète, s'est ajouté à ce pour quoi nous devons être responsables parce que nous avons pouvoir sur lui. (H.Jonas, Op. cit. pp. 24-25)

As the result of the thought of the two philosophers mentioned above, vulnerability is now perceived as part of all the different dimensions of human life, and not only as a characteristic that may be present in the area of research involving human subjects. The “respect for human vulnerability” as an ethical principle was proclaimed in the *Universal Declaration on Bioethics and Human Rights*, from UNESCO, in October 2005. From Levinas and Jonas up to this document, this principle has been increasingly related to Responsibility and Solitude as the basis for a solid answer to the common substance of humanity: our vulnerability. In order to ensure that the triangle – Vulnerability, Responsibility and Solitude – is real, we need a philosophy of the Human as a global perspective on human life and human beings:

Anthropology will use (an) interdisciplinary dialogue to address, among other issues, the limits of the human action to change individuals' identities; the value of life as a supreme but not as an absolute value; the need for a global perspective in order to de-center the human being, so that he/she can get out of themselves and experience freedom. (Clavel, J. M., 1998, p.16, our translation)

Within this anthropological framework, bioethics is more than applied ethics. However, the pragmatic dimension plays a crucial role these days, because it is a prerogative of bioethics as civic ethics. In fact, bioethics requires norms and a procedural reasoning that makes consensus possible and, at the same time, it asks for a dialectical role-playing between citizens as non-experts and scientists as experts. Every time science and technology go a step forward or backwards, new ethical questions are raised and underlying these queries there are always anthropological concerns.

1.2 Bioethics and Literature

How can the anthropological concerns underlying bioethical issues and urging for ethical deliberation be explored through literary texts? This is possible mainly due to the role of metaphorical language, which broadens our sight, providing us with new worlds, i.e. with various worlds that stem from the attitudes of our consciousness. Assuming that we actually live

in subjective worlds that are simultaneously objective to each of us and that multiplicity is in fact the very essence of human experience, then we can grasp the important role of literary texts as a source of phenomenological truth, i.e. as the place where the objective truth of the external world and the subjective truth of the reader meet:

Metaphor is living not only to the extent that it vivifies a constituted language. Metaphor is living by virtue of the fact that it introduces the spark of imagination into a 'thinking more' at the conceptual level. The struggle to 'think more', guided by the 'vivifying principle', is the 'soul' of interpretation. (Ricoeur, 1977, p. 303)

Literary texts, which demand a reading strategy of suspending the literal reference and locating the meaning between the world of the text and the text of the world, provide the reader with the opportunity to see something in a certain way, thus increasing human knowledge. Umberto Eco (2002) conceives of Literature as an enlightening source, which contributes to the building of language and cultural identity, while disclosing the vulnerable trait of humanity: literary texts reveal the impossibility of changing the course of their story, even if it is against the readers' will, thus *teaching us how to die*:

As for death, do not the narratives provided by literature serve to soften the sting of anguish in the face of the unknown, of nothingness, by giving it in imagination the shape of this or that death, exemplary in one way or another? Thus fiction has a role to play in the apprenticeship of dying. (Ricoeur, 1992, p. 162)

Moreover, Literature shows human beings acting in space and throughout time, making the readers aware of the limits and of the conditioning of their existence together with their freedom of choice. Literary texts underline the role of freedom throughout our life, mainly through the use of imagination and creativity, but they also make us aware of the importance of stating where we stand, of knowing our limits, of defining the life project that lies behind the values that we first adopt without reflection and then reflect upon and integrate as part of our identity:

Between the imagination that says, «I can try anything» and the voice that says, «Everything is possible but not everything is beneficial (understanding here, to others and to yourself) », a muted discord is sounded. It is this discord that the act of promising transforms into a fragile concordance: «I can try anything», to be sure, but «Here is where I stand! (Ricoeur, 1992, pp. 167-8)

David Lodge (2009) adds to the ideas outlined by Eco that literary texts also express the uniqueness of each human being, since they are written in a singular and unrepeatable way, even when they recycle stories or import characters from other stories. It is this singularity together with a universal dimension that makes literary texts the place where experience can be deeply represented, making the reader see what characters tell, even when they tell it in the first person:

There is no ethically neutral narrative. Literature is a vast laboratory in which we experiment with estimations, evaluations, and judgments of approval and condemnation through which narrativity serves as a proaedeutic to ethics. (Ricoeur, 1992, p. 115)

It is important to notice, that the knowledge provided by literary texts will only be achieved through hermeneutics, i.e. through interpretation, which gives the reader an important role in this linguistic process rooted in the objective facts of the world and in the subjective interpretation of the individual who interprets them. It is precisely this hermeneutic process that sets up a bridge between narrative and identity:

By narrating a life of which I am not the author as to existence, I make myself its coauthor as to its meaning (...) It is precisely because of the elusive character of real life that we need the help of fiction to organize life retrospectively, after the fact, prepared to take as provisional and open to revision any figure of emplotment borrowed from fiction or from history. (Ibidem, p. 162)

Considering that our identity is an inter-subjective process built throughout our life, and stressing the role of narrative in this process, it is possible to conceive of education as an hermeneutic task, thus linked with ethics, since it is not possible to interpret without judging. This web, which connects ethics, hermeneutics, literary texts and bioethics education, opens up new ways of seeing reality, of acting upon it and makes us be suspicious of absolute certainties and closed narratives. According to Gracia (2008) moral perfection can only be achieved through the ethical coherence between ideas and actions and in order to achieve that perfection this coherence must be deep and time-resistant. When this happens, our actions become virtuous habits that we enact effortlessly and even with some pleasure.

2. The views of a novel: *Blue Gold*, by Clive Cussler

Having defined the role of literary texts in bioethical reflection and after setting up the bioethics framework as anthropological, global/particular, inquisitive/dialogical as well as applied/normative, we will now focus on a novel *Blue Gold*, by Clive Cussler (2008) and see how its reading enriches and challenges our views of important bioethical principles, such as Responsibility, Autonomy and Vulnerability. It is not our purpose to outline a class methodology, because we do not have time and space to do it here, but to disclose the challenges that a literary reading can posit to both teachers and students of bioethics and to citizens at large, particularly when engaged with ethical deliberation.

2.1 *Blue Gold* or the ethics of responsibility

Blue Gold is an adventure narrative that conflates an investigation into the sudden deaths of a pod of gray whales with the crimes committed by Gogstad, probably the biggest world-wide conglomerate in history:

“Gogstad is enormous! With holdings in the hundreds of billions, it may be the biggest worldwide conglomerate in history”, p. 208; “Gogstad is the dominant player in the world water business – it has the controlling interest in water companies in one hundred and fifty countries on six continents and distributes water to more than two hundred million people.”, p. 210.

NUMA (National Underwater & Marine Agency) is under the limelights, not only because its leader, Kurt Austin, attempts to discover what killed the whales that obstructed the power boat race he and his partner, Joe Zavala, were taking part in, but also because a specially assigned NUMA team discovers a mysterious tribe and a mythical white goddess in South America's hills, being all these characters part of a narrative about the limits of science and human power and the respect for humanity. Every step taken by Austin and his crew toward salvation takes them deeper into a dense jungle of treachery, blackmail, and death.

Reading this novel as a text that can sharpen our views on ethical deliberation is to follow Attridge theory that literary texts make *ethical demands* on us:

All creative shapings of language (and any other cultural materials) make demands that can, in this extended sense, be called ethical. To find oneself reading an inventive work is to find oneself subject to certain obligations – to respect its otherness, to respond to its singularity, to

avoid reducing it to the familiar and the utilitarian, even while attempting to comprehend it by relating to these. (...) The distinctive ethical demand made by the literary work is not to be identified with its characters or its plot, with the human intercourse and judgments it portrays, with its depictions of virtues and vices or of the difficulty of separating these; all these can be found in other discourses, such as historical writing or journalistic reporting. (...) Rather, it is to be found in what makes it literature: its staging of the fundamental processes whereby language works upon us and upon the world. (Attridge, 2004, p. 130)

Uttering the words *blue gold* as signifiers of water implies economic, commercial as well as mythical meanings that may require a suspension of our cognitive representation of water as a common good, a natural resource available to everyone for free, and a disposition to see it in a new way. *Blue gold* portrays a link between water and petrol, thus disclosing the economic and commercial value of this natural element, upon which human life depends. The mythical dimension is drawn by the power that gold has historically had in religious and popular legends, either representing the hybris of human beings trying to play the role of Gods (the Golden Calf) or their search for ephemeral victories in the material world (the golden sun as a blinding power in Icarus myth). To respect the literary text, according to Attridge (2004), is to avoid reducing it to the familiar and the utilitarian and to let the language work upon us, i.e. to reflect not only *upon* the story, but *with* it, enhancing our knowledge with the new vision provided by the written text. In the case of Clive Clusser's novel, we are taken to a future scenario (maybe already present in some parts of the world) and faced with the ethical dimension of a new metaphor, mainly *water is gold*:

"Blue gold is *water*?"

"Yep." Cohen held the glass to the light like a fine wine, then took a hearty gulp. "Water is no longer a natural right, it's a commodity that can fetch a higher price than refined gas." (p. 210)

All the actions and decisions in this novel call for a reflection based on the meaning of responsibility *to* and *for* the others, since the way water is used and distributed influences the survival of human beings and of their environment and discloses one of their vulnerable traits: the fact that humanity is limited by time and space, in spite of the immense capacity of transcendence through *imagination*, *memory* and *empathy*. Not only do we live for a limited amount of time but we also experience in consciousness less time than our total time on Earth: "my birth is an event for others, not for myself" (Ricoeur, 1965, p. 36). Therefore, we can only

have a total perspective of life by stepping outside ourselves and seeing ourselves as others would see us, which is accomplished through *imagination*, one of the tools we have to transgress the finitude of human life. In *Blue Gold*, imagination underlies the way Francesca, the scientist, likes to think of her desalination equipment as a reverse Pandora's box, from which good things would come out when it was opened. *Memory*, one of the other transgressions tools, discloses the multiplicity of selfhood, because having a past means having the opportunity to appropriate and to enact an open-ended source of possibilities and to insert oneself into a multiplicity of narratives. These narratives about the others, by the others, about oneself and by oneself build up selfhood, thus underlining its collective dimension: identities are transformed constantly through relations of *sympathetic identification* that underlie, but are also themselves made possible by, the taking of responsibility (Lloyd, p. 117). In Cussler's novel, the past memories are used by Francesca as a source of knowledge to act upon the present and the future:

"It goes back to my childhood. I became aware at a very early age that I come from a privileged background. Even as a girl, I knew I lived in a city with appalling slums. As I grew older and traveled I learned that my city was a microcosm for the world. Here in one place were the haves and the haves not. I also discovered that the difference between the rich and poor nations is the earth's most plentiful substance: water." (p. 256)

Both temporal and collective dimensions of selfhood are essential in our attempt to understand it, being this attempt thwarted if we disregard another fundamental dimension, namely the spatial one conveyed by metaphors of sovereign selves, sharply bordered individuals. The territory of one's body and character may be easily outlined, but the temporal aspects of the self are sources of instability and lack of fixity:

A self is born into a future in which it will make individual decisions, for which it will be held responsible, praised or blamed. But it is also born into the past of its communal life – a past that both precedes it and awaits it; a past of collective memory and imagination – which must be reckoned with in the present. The endless multiplication of possibilities for what a self can be and do is kept under restraint by the limitations of, and on, the here-and-now self that interacts spatially with the world. (Lloyd, p. 122)

It is within this limited existence and its possibilities of transgression that the concept of responsibility can be considered as an overarching concept, implying *total responsibility* for the

past, the present and the future, *to* and *for* every other being on Earth, for the previous deeds and for those that were not done; or as a more limited concept, based on prudence and on deliberation considered as the process that aims to choose the most prudent course of action and to act accordingly.

2.2. The Ethics of Responsibility, Deliberation, and the key role of Context

An historical overview of Responsibility discloses its modernity, since this word seems to have been first used within the context of the Protestant Reform with a theological meaning. From a protestant point of view, human beings have sinned and are thus responsible for all de Evil that might affect them, which sets up a link between human Fall and God's punishment (in this case, responsibility bears a theological and lawful meaning). In the 18th century responsibility was secularized, equating with the obligation to pay for the damages or harm previously done, being thus understood as a judicial concept – one is responsible for the consequences of one's deeds and has to pay for it. On the other hand, Kant conceives of responsibility as an antecedent term, i.e. an individual is morally responsible for an action if he is **well informed** about it; if he is **free** to do it, without any kind of coercion; and if he is **willing** to do it. According to Kant, moral responsibility is thus defined before and not after the action, disregarding the lawfulness or the consequences of that particular course of action. To sum up this brief historical outline of the concept Responsibility, we could say that it was first used as a theological term, then as a judicial one and only afterwards with an ethical overtone (at the second half of the 19th century). Max Weber was the author who coined the phrase "ethics of responsibility" in 1919, contrasting it with the "ethics of conviction" (referring to Kant, Fichte, and other authors of intolerant and rigid principles-based ethics). According to Weber, the First World War had been the result of intolerance, fanaticism, and to avoid these threats, he thought that ethical issues should always be discussed by focusing on the *particular situation*, and not only by following one's beliefs and principles.

The key role played by the particular context where an ethical issue is raised is also present in different deliberation models, such as T.M. Jones (1991) – *An issue contingent model* --, which is based on the idea that the moral intensity of a particular situation influences the way

the individuals perceive that situation and the way they decide to act. There is thus a correlation between the moral intensity of a situation and the perception and ethical intention of the subject. In Jones' model moral intensity is defined according to six components: magnitude of consequences; probability of effect; temporal immediacy; concentration of effect; proximity; social consensus. A person's collective assessment of these characteristics results in a given situation's moral intensity. In general, issues with high moral intensity will be recognized as ethical dilemmas more often than those with low moral intensity, leading to a positive relationship between moral intensity and perception of an ethical problem. Furthermore, issues with high moral intensity have a positive relationship with an individual's intention to behave in an ethical manner. The fact that moral intensity is a key component in ethical decision making underlines the need previously mentioned of educating individuals on potential consequences and implications of ethical problems, so that their perception and decision making skills can be sharpened, when they encounter ethically sensitive situations.

Bearing in mind Ricoeur's representation of literature as a *laboratory of ethical judgment*, it is clear the paramount role of literary texts in bioethics education on deliberation: first, the transaction between the readers and the text enhances the *intensity* of the moral issues conveyed by the narrative/poem/drama, thus sharpening the individual's *perception* of the moral problem and influencing positively his/her *intention* to behave ethically; second, the metaphorical language and the proper nature of literary texts provide the readers with multiple meanings and layers of world-representation, based on the work of imagination, memory and emotions, which cuts both ways: on the one hand, it provides the opportunity to see as the *other* sees, to imagine *oneself as another*, fostering imagination which is an essential element of moral life; on the other hand, it stresses the multiplicity that characterizes "reality", not only by disclosing the different ways the real world can be perceived and interpreted, but also by outlining or suggesting various courses of action, instead of a two-fold solution to ethical issues that the human mind tends to focus upon. When it comes to reflect upon Responsibility, these imaginative skills and this multiple approach to reality are likely to help us get a clearer picture.

After the Second World War, responsibility broadened its influence, stretching to the actions done and also to those that had not been done by us, but which we also had to respond for; stretching from the individuals' actions to their responsibility *for* and *to* the entire world. From the responsible action to the principle of Responsibility and finally to the imperative of Responsibility – this was the historical path of this term. The consequence of considering everyone responsible for everything and responsible to every other being on Earth was the feeling that no one was really responsible for anything. Ricoeur was one of the philosophers who criticized this total responsibility, claiming that to be responsible does not mean to take the burden of the present and of the future human kind, but to act with prudence. We cannot make ethical decisions aiming to prevent the extinction of the human species or the total destruction of the environment; instead, we have to be prudent and responsible when we act, following Aristotle's concept of *phronesis*. According to Diego Gracia, this fundamental role of prudence casts **Deliberation** as the ideal method for the **ethics of responsibility**. It is precisely the key role played by prudence and by a reflection based on the particular situation that Gracia's model of ethical deliberation proposes (Gracia, 2001; 2003).

2.3 Deliberation in and on *Blue Gold*: imagining oneself otherwise

Deliberation is the cornerstone of any adequate methodology (to manage and resolve ethical quandaries). This is due to the fact that moral decisions must take into account not only principles and ideas, but also emotions, values and beliefs. Deliberation is the process in which everyone concerned by the decisions is considered a valid moral agent, obliged to give reasons for their own points of view, and to listen to the reasons of others. The goal of this process is not the reaching of a consensus but the enrichment of one's own point of view with that of the others, increasing in this way the maturity of one's own decision, in order to make it more wise or prudent. (Gracia, 2003, p. 227)

Diego Gracia's definition of deliberation draws our attention to **three characteristics** of this process, which are highly significant as we read Cussler's novel: **all those affected by the decision of privatizing water should be considered part of the deliberation process** – one should not forget that the persons or groups of persons different from those who have to make the decision may deliberate and that deliberation should not be confused with decision-making; **the aim of the deliberative procedure is not to reach a consensus, but to enrich each one's point of view** – in *Blue Gold*, the consensus is artificially imposed by a web of economic and

political powers, undermined in the novel by the disclosure of those who have been made invisible and are not given a voice: the Chulo tribe, Owen's Valley people (p. 209), and all the humanity unaware of Gogstad megaprojects of transporting water across the world, at the expense of droughts in some regions and by doing harm to those who cannot afford to pay for an essential good; **the target of deliberation is to decide wisely and prudently** on the meaning of water in human communities and **to act accordingly** when distributing this natural resource.

According to the steps outlined by Gracia's deliberation model², every deliberative procedure should start with **the presentation of the case** by the person responsible for making the decision (Gracia, 2003, p. 230). In Cussler's novel, the arguments given for privatizing water or for keeping public management of this natural resource are worked out both by Francesca, the scientist who intends to help the world to ensure that everyone has access to fresh water almost for free (*No patents. No copyright, No royalty fees. Absolutely free of charge*, p. 9), and by Brynhild Sigurd, the invisible hand running the Gogstad empire, enclosed in a windowless, frozen, white office, above *the little people*. Therefore, the presentation of the case is done by two characters who stand for a double perspective of water management – public or private -, with radically different approaches to the meaning of water, Nature, person, justice, autonomy, vulnerability and responsibility:

“In this century wars will not be fought over oil, as in the past, but over water. (...) There is no more fresh water on earth than two thousand years ago when the population was three percent of its current size. (...) Some countries will simply run out of water, sparking a global refugee crisis. (...) We are facing a shortage on a planet whose surface is covered two-thirds with water.” (p. 256)

² “Deliberation in itself is a method, a procedure. Therefore, correct deliberation must go through certain established stages. Critical analysis of bioethical cases should always consist of the following basic steps: 1. Presentation of the case by the person responsible for making the decision; 2. Discussion of the clinical aspects of the medical record; 3. Identification of the moral problems that arise; 4. The person responsible for the patient chooses the moral problem that concerns him or her and that he or she wishes to analyse; 5. Determination of the values in conflict; 6. Tree of courses of action; 7. Analysis of the best course of action; 8. Final decision; 9. Decision control consistency: legality test; publicity test; consistency in time test.” (Gracia, 2003, p. 230) It is our purpose to focus upon those steps that can be analysed through the reading of Cussler's novel and that contribute to a bioethical reflection on the principles of Autonomy, Responsibility and Vulnerability within the relationship between Humanity and Environment (Water), namely, steps 1, 3, 5, 6, 7 and 9.

To overcome this shortage, Francesca is willing to let the world use her scientific discovery of a desalination process that would make water nearly free for everyone, provided the countries applying for it compromised with orderly development. In contrast with this approach, which is compared to a Pandora's box that would deliver good things instead of evil ones (p. 3), Sigurd's views on water are based on economic and power arguments, placing the *autonomy* of the leaders and companies above *vulnerability* and *justice*:

"The problem was not water supply but distribution. Much of the water was being misused. Ending government subsidies and putting water in the private sector means that it will not be wasted for the simplest of reasons. Water is not profitable. (...) Now the price of water will be set by supply and demand. The marketplace will rule. Only those who can afford the water will get it." (p. 84)

"We can create a water shortage wherever and whenever we want to simply by turning the handle of the tap. (...) / Under my plan water will no longer be cheap. We will be doing on a worldwide scale, in Europe and Asia, South America and Africa. It will be capitalism at its purest."

As Sigurd is faced with Francesca's argument that Gogstad empire³ would lead to chaos, she defines the foundations of her empire as *water Darwinism* (p. 320), drawing a comparison between the power of her enterprise and that of the Vikings over the sea and making us bring to our reading the intertext of *Moby Dick*, by Melville: both Captain Ahab and Sigurd obsessively search for power over life represented by the white whale and water; both of them cut themselves off the human community, by leaving their place and moving instead to a vessel and an enclosed office, unaware of their fundamental belonging to the same community they reject. This belonging is based on vulnerability, a concept previously mentioned, which can be analyzed both from a wide and from a more limited approach: the former focus on vulnerability as the human condition, while the latter urges us to care *for* and *about* the power that threatens humanity. What is characteristic of bioethics is thus this double perspective on vulnerability, as well as the setting up of relationships between power and duty as the basis for a thorough reflection upon this principle. Therapeutic, economic and social powers intertwine with vulnerability, being imagination the key link between those who are powerful and those affected

³ See the similarity between Gogstad and the German words Gott and Stadt: Sigurd's search for power can thus be interpreted as an expression of human hybris, trying to set up on Earth the city of God.

by power: by providing free and rapid therapeutic procedures, researchers make experiment subjects vulnerable; by providing a solution to almost every problem of human life, the economic power of biomedicine makes us all vulnerable; by aiming to achieve perfection, under the illusion of eternal life, science and technology explore another expression of human vulnerability, namely imagination.

Our capacity to imagine oneself otherwise - i.e. our ability to distance ourselves from our habitual modes of self-understanding and to envisage, in imaginative representations, alternate possibilities for ourselves – plays an important role in practical reflection and deliberation about the self, and hence in self-definition. (Mackenzie, C., 2000, p. 139)

Therefore, in oppressive social contexts, such as the world under Gogstad empire, the capacities of agents for autonomous action can be impaired by their own inability to *imagine oneself otherwise*. Without this capacity, not only are we unable to be autonomous from a relational point of view, but we also disregard the principle of vulnerability.

Following Gracia's deliberation model, after **presenting the case**, we should **identify the moral problem, the values in conflict and analyse the best course of action**. As mentioned before, the ethical issue in Cussler's novel concerning human action towards water can be summed up in this question: should our responsibility to and for human life nowadays and in the future justify overestimating autonomy and privatise water as an economic good, or should we consider the role played by vulnerability and equity as far as water distribution is concerned and look for different courses of action?

To analyse the best course of action, one should check its compliance to the principles at issue and assess the likely consequences, bearing in mind that *there is no known deontological principle that can be said with absolute certainty to have or probably have no exceptions* (Gracia, 2003. p. 231). By analyzing the principles involved, the readers of Cussler's novel are faced with autonomy and beneficence as principles of private nature and with nonmaleficence and justice as principles of public nature. Therefore, rescuing humanity from worldwide drought could be considered a public duty of nonmaleficence, being the privatization of water distribution posited as a necessary solution to avoid a worse evil; on the other hand, autonomy and beneficence would ask for the individuals responsible for water distribution to

make decisions, choosing either to be supported in this decision making process, or to do it on their own, isolated from the rest of the community. It seems that there can be a conflict between rescuing humanity from death caused by thirst and deciding autonomously (on behalf of society) what should be regarded as Good Life – in case autonomy is perceived as individualism and as disembodied selfhood. However, there may not be any contradiction between both courses of action if autonomy is perceived as a relational concept that allows for vulnerability and a philosophy of duties (instead of only a philosophy of rights) to be considered while deliberating. Relational autonomy is a concept that has been developed by the need to find an adequate explanation of impairment of autonomy in contexts of oppressive socialization, together with feminist critiques of traditional notions of autonomy:

Crudely stated the charge is that the concept of autonomy is inherently masculinist, that it is inextricably bound up with masculine character ideals, with assumptions about selfhood and agency that are metaphysically, epistemologically, and ethically problematic from a feminist perspective, and with political traditions that historically have been hostile to women's interests and freedom. What lies at the heart of these charges is the conviction that the notion of individual autonomy is fundamentally individualistic and rationalistic. (Stoljar, N.; Mackenzie, C., 2000, p. 3)

Catriona Mackenzie and Natalie Stoljar believe that, although feminist critiques have pointed out serious problems with some historical and contemporary notions of autonomy, they have not repudiated this concept altogether. In fact, these critical approaches have contributed to a reconceptualization of autonomy and it is this refigured concept that is called relational autonomy. From a relational point of view, individuals are perceived as emotional, embodied, desiring, creative, and feeling, as well as rational, creatures (Mackenzie, C.; Stoljar, N., 2009, p. 21), and only by acknowledging these features, do we respect each individual's autonomy, the capacity to choose their course of action, as well as their own communities.

Conclusion

Only by focusing on the individual as body and mind, within a community that both supports one's narrative and is created by it, opened to the world and to oneself by memory and imagination, within temporal and spatial dimensions of selfhood, only then can our deliberative process be effectively prudent and wise. This is incompatible with dualistic perspectives –

privatizing or not privatizing water -, urging us instead to consider alternative courses of action based on some important principles underlying the ethical attitude towards the use of water and its distribution:

- Whether one privatizes water or keeps it under public management, what really matters is to ensure that the basic needs of the different populations, mainly of the most vulnerable ones, are met;
- An ethical approach to the use of water demands an independent control of its management, good quality, growing efficiency in its use, under the requirement that everyone interested in participating in the deliberation process has the opportunity to do it. (Boff, 2005).

According to Gracia, whatever course of action one chooses, its consistency should always be checked, by being put to the **legality test** (“**is this a legal decision?**”), the **publicity test** (“**would you be prepared to defend it publicly?**”) and the **consistency in time test** (“**would you arrive at the same decision in a few more hours or in a few more days?**”). (Gracia, 2003, p. 230)

As Brynhild Sigurd states in the novel, there are different arguments to support water privatization under the heading of ideology, social order, commercial needs and financial demands. The issue at stake is not the coherence of such arguments, since all of them are built on logical premises. However, deliberating on the meaning of water to humanity today should go beyond these logical reasoning, including instead memory, imagination and emotion as key features of those who deliberate, those who decide and all the human beings who are affected by these decisions. *Imagining ourselves otherwise* safeguards the necessary skills to develop relational autonomy, hence responding to and for the other from a solicitous attitude that also stems from and leads to vulnerability. Between Francesca’s intention to provide free water and Sigurd’s obsessive search for power, there are the invisible people, who should be made visible by shared responsibility – water may be free, but its use should have limits - and by a shared narrative written by the common thread of vulnerability. It is precisely this common narrative that makes us think not only *about* but also, and most importantly, *with* Cussler’s novel:

- As readers we are asked to interact with the text assuming that there are different ontological layers which have to be transgressed. We actually move from our space/time condition into a fictional territory where time and space are different from ours, and where we can find *Chinese boxes stories* that open up the apparently fixed temporal and spatial borders into multiplicity. This experience provides us with the opportunity to practise what ethical judgment entails, mainly to enter the other's territory knowing that they may also be right;
- On the fictional level, within the fictional world, we are faced with deliberative procedures carried out by the characters that may as well be ours in the real world, at present or in the future. Therefore, we can imaginatively enact these situations before we actually have to face them.

Thinking *with Blue Gold* means that deliberation can be worked out both as an **attitude** implied by the very nature of literary reading and as a **procedure** used by the characters throughout their own stories and by the readers when they reflect upon and estimate the written text.

Ultimately, we are in charge of writing the end of the story, not within the fictional territory, because that has already been closed by Cussler's narrator, but within our temporal and spatial world, where various future scenarios loom ahead, waiting for our action to make them come true or to ensure that they will never happen.

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