Image:


*Burckhardt-Wildt Apocalypse*, France, ca. 1295 (Detroit Institute of Arts, Acc. 1983.20A, verso)

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THE JOURNAL OF HUMANISTIC PSYCHIATRY

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Coping With Future Anxiety

Should I accept that job offer? They were pretty nice and the job is attractive. Will they get disappointed if I decide not to work there? Maybe I should just accept, but do I really want to live there? I thought was planning to go back home and live closer to my family. What if something happen to one of them while I live here? What if something happens to me? Would this have been worth it? What are really the important things in life? Is it all about my personal goals? Should I take advantage of the opportunities I have, or so I have responsibilities that will later seem that they were more important? Am I a privileged person, therefore do what will help me? If I stay here, will I marry and start a family here? Might that mean that I won’t be able to go back home? What will my life be about? Isn’t the family the most important? Will I have children? Am I getting too old? Am I immature? Is this about my childhood? What’s wrong with me? What happened??!!

The future is agnostic. No matter how much effort we make, we won’t have total control over what will happen to us. Future agnosticism is the most common source of anxiety in human beings. Clinically, generalized anxiety disorder, perhaps the most common psychiatric disorder, is phenomenologically characterized by worrying excessively, usually about the possible future outcomes of a number of things that are important for the person’s world. Symptoms of generalized anxiety disorder are extremely common among many of us - so-called neurotics - functioning people who suffer distress. Anxiety symptoms about the future are so common that scholars assert this kind of anxiety can be adaptive, as it pushes us up to achieve things.

Nevertheless, for most individuals anxiety can be distressful, to the extent of suffering. We all want to feel a sense of control about our lives, to some degree. Many people decide to behave conservatively. “I’d better stay in this job rather than risking asking for a promotion.” While this can help gain some sense of control and safety, at some point many people decide to take some risk for the achievement of a major goal. Keeping a good balance between risks and benefits becomes a challenging art.

A lack of ability to predict our future has and will continue to provoke anxiety in most human beings. For the relief of that anxiety, humans try all different kind of things, such as denial or suppression of anxieties that provoke negative feelings. Examples of this might be
reading horoscopes, visiting a psychic reader, talking to a psychiatrist or a psychologist, taking serotonergic and antidopaminergic medications, praying and so on.

A few months ago, my mentor at Memorial Sloan Kettering, Dr. William Breitbart shared with me a book written by Lucius Annaeus Seneca “De Brevitate Vitae” (On The Shortness of Life). Seneca dedicated “De Brevitae Vitae” to his friend Paulinus. The book has made a difference for me, in the way I approach future anxiety with patients - and my own life.

Seneca was born in Córdoba in 4 B.C. but moved at an early life to Rome where he was educated in rhetoric. Seneca became a statesman and served as an advisor of emperors Caligula and Nero. The latter ordered him to commit suicide based on false accusations of conspiracy.

Seneca was a follower of Stoic philosophy. In his essay, he advises us that life is neither short nor long. Our decisions and how we live our lives can effect the perception of how long life might seem. Seneca proposes to dedicate time every day to meditate and think of our own life and ourselves. Seneca criticizes the “occupati” (always busy people), who spend most of their lives with things that are not important, therefore are unable to dedicate time for joy, observation, meditation and appreciation of the beauty of the world and life. Paradoxically, after ignorance or disregard for the foregoing through much of their lives, many “occupati” who are consciously nearing the end of life and confronting death would give away all their savings and belongings just to live a little more time.

Seneca believes that the ability to live a good life is not given by nature, to live a good life we must therefore practice. The more practice good living, the better we shall live. Seneca recommends we live every day as a whole life. The future is written from the present and the only thing we really have is the present. Seneca thinks we should enjoy our present as a result of our past and plan the future from the present without worrying excessively about our past or our future. For Seneca, worrying about the future loses today. In Seneca’s own words “True happiness is to enjoy the present, without anxious dependence upon the future, not to amuse ourselves with either hopes or fears but to rest satisfied with what we have, which is sufficient, for he that is so wants nothing. The greatest blessings of mankind are within us and within our reach. A wise man is content with his lot, whatever it may be, without wishing for what he has not.”
Seneca is a pioneer in advocacy of momentary living, an approach that can help us live our lives with satisfaction and will ultimately change our perception on the so-called “shortness of life”. Life is not short, if you learn how to live it.

Fernando Espi Forcen, M.D.

Icons of Psychiatry

The Monster Of The Sea Encounters The Dragon

Carlos Espi Forcen, Ph.D., Department of Art History, University of Murcia, Spain

The role played nowadays by science fiction was played throughout history by the Apocalypse or Book of Revelation, the last book of the Bible written by a certain John on the island of Patmos, in the Aegean Sea. It is highly unlikely that the John that wrote the Apocalypse were the same John that wrote the Gospel Book or the same John that was a disciple of Christ. They were probably three different persons, but tradition believed they were the same. The name Apocalypse comes from Greek apocalypsis, that means unveiling or revelation, hence the English name Book of Revelation. We know that the book was written
by the end of the 1st century, during the rule of the Roman emperor Domitian, but in theory was a direct revelation to John by an angel sent by God; thus humankind would know what the paradise and the future will be. Some of the most popular images of medieval art are based on the Apocalypse, such as the appearance of God-Christ surrounded by four beast-like creatures and the twenty-four elders, the Lamb of God, the heavenly Jerusalem or the Last Judgment.

But the Apocalypse also describes a series of phantasmagorical events that would take place at the end of times. For example, after the Lamb with seven eyes and seven horns opens the book with the seven seals the four horsemen start their battle, one of them is Death that kills everyone on earth with the sword, hunger and disease. Another popular scene is the one that describes a woman clothed by the sun and standing on the moon, giving birth a child at the moment in which a seven-headed dragon throws stars at her with its tail. Such a woman has long been identified with Virgin Mary and was thereby chosen during the Counterreformation to represent the Immaculate Conception. Of this kind is also the image of the whore of Babylonia seated on a red beast with seven heads. The image of the Beast of the Sea encountering the Dragon from the Burckhardt-Wildt Apocalypse, written and illustrated in France in 1295, depicts one of the phantasmagorical events that would take place at the end of times. It is based on the Apocalypse 13: 2-3. A beast with seven heads and ten horns, the body of a leopard, feet of a bear and mouth of a lion comes out of the sea and receives the power of a dragon. On the image the beast, a symbol of blasphemy, has been represented very accurately and receives his power in the form of a scepter by the dragon, which on this miniature has the appearance of a basilisk, the biggest of the serpents.
Essays

The Future, Free Will And Ambition

Aviram Mizrachi, M.D., Department of Surgery, Memorial Sloan Kettering, New York, NY

Perhaps one the most ancient customs in the history of mankind was trying to predict the future. So-called prophets, wizards and witches were believed to have this ability and had practiced this since the dawn of civilization. Throughout history the ethos of foreseeing had been well established in almost every human culture on the planet.

Fear of the unknown, sometimes in its most severe form of existential uncertainty, has led to anxiety that prompted a need for reassurance and comfort. Most cultures found this comfort by creating myths that subsequently evolved to idols, gods and folklore and eventually religions. However, it wasn’t until messengers and middlemen that presumed to represent the divine had established a more systematic set of rules that this anxiety grew even stronger simply by trying to follow these rules. As we try to analyze this vicious cycle that keeps feeding it self, we might reach to the inevitable conclusion that knowing the future may or may not reduce anxiety.

It sounds so simple but yet so complicated, that even today in the 21st century most human beings believe deep in their hearts that their future had already been determined. Interestingly, many of them will try to influence the future either by following cultural or religious paradigms, pursue personal aspirations or both. This may help reducing anxiety.

And so the balance between free will, or more accurately, the lack of free will and ambition, is probably one of the most intriguing subjects in human psychology and is relevant for almost every human interaction.

Free will is constantly being restricted by different sets of rules: cultural, religious, social, political, global etc. It is very reasonable to say that human’s free will is being confined since the beginning of civilization when humans started to socialize with each other. Ambition on the other hand is absolute. It is the pure drive of an individual to create it’s own future or change it (if you believe that it has been pre-determined, like many do).

This brings us back to the critical question of what’s better, knowing the future or creating/changing it? And weather this might reduce or increase anxiety that is actually the driving force for all that? There’s no simple answer.
In fact, knowing the future will not necessarily reduce anxiety and can even induce depression. On one hand, a person can have a bright and promising future and so he will be very anxious to fulfill it, and on the other hand a person with dark and dismal future will become discouraged and melancholic.

Eventually, we all need anxiety (of the unknown) to drive our ambition and try to shape/change our own future. The lack of free will that society imposes upon us may hold our ambition but can sometimes direct it to the right path.

**Grey/Gray:**

**Fragmented Reflections On The Color Grey, Part 1**

Nicole Mauser, Painter and Lecturer, Department of Visual Arts, University of Chicago

(Introduction by Matthew Brown)

On a slight departure from the traditional texted referenced here, let us contemplate, not a piece of written work, visual expression, or even moving images, but a simple color. When one thinks of color and how colors relate to both the future and the past, the color of grey certainly comes to mind. One can see grey in a modern monolith of a skyscraper and also as the primary color used to present film prior to the invention of Technicolor. It is within the grey that all exists and nothing at all. It is neither black, nor white. It is the omnipresent color that can masquerade as any color, or also function, in a way as an absence of color. It is truly the color of life, for it has endless potential, and is the foundation of being able to think in abstract thought. Being able to see the world though various shades of grey, can open one up to learning from experience and seeing things from a different point of view, rather than insisting on that the world exists in only black or white. It is with great pleasure that, I share with you an artists, musings on the color of grey, or gray:

Unlike achromatic black and white, in my humble opinion, grey encompasses all the colors of the visible spectrum. Let me make a case for grey or gray:

While white reflects and black absorbs all the colors, whereas grey reflects and refracts colors adjacent to itself incorporating and evenly distributing them throughout. Grey integrates the hue of other colors and allows them to influence its own temperature and intensity. It does
not swallow and obliterate nor refuse and dismiss other colors in its vicinity. Grey is the hybrid color leading the 21st century, post-white cube. It hovers between a disappearing act and performing feats of elevation by lifting heavy objects to float imperceptibly off the ground.

In his incomplete treatise, Remarks on Colour, Ludwig Wittgenstein applies psychology, language, and logic games to denote a space comprised of what we comprehend yet eludes fields of math and science to aptly convey and describe. This territory is located just beyond the reach of language and at the beginning cusp of the realm of physical sensations:

34. There is the glow of red-hot and of white-hot: but what would brown-hot and grey-hot look like? Why can’t we conceive of these as a lower degree of white-hot?

40. For the fact that we cannot conceive of something ‘glowing grey’ belongs neither to the physics or the psychology of colour.¹

This is where Painting steps in. Grey is a tertiary color existing between colors and simultaneously omnipresent. Mixing two complimentary colors or two secondary colors together generates versions of grey and grey-ish brown and greenish grey. Painting is a subtractive color process (whereas light is additive) therefore grey is inevitable. Beginning painters find that layer upon layer of wet into wet paint will result in less and less color cogency and more and more grey. This then becomes the beginning point not the ending. Painting has endured a thousand deaths, which is actually its zero point. Neither a beginning nor an end but a starting point we must acknowledge.

David Batchelor: "There’s that great phrase by Wittgenstein: 'Whatever looks luminous does not look grey'. It is such a fascinating observation. What is it about grey and luminosity? Why is it so hard to think of a bright grey? I thought I’d make a suite of grey paintings, but grey is so complex. The minute you select a grey and put it next to another grey, it becomes not grey, it becomes slightly greenish, or reddish, or pinkish, or blueish or brownish"²


² http://helenshaddock.blogspot.com/2013/06/david-batchelor-on-grey.html
Case study:

**Sherwin Williams Modern White #6168**

Truly, *Moderne White* is actually a grey parading as white in nomenclature only. Engulfed in natural and diffuse sunlight of the morning, #6168 appears cool, blue, and reserved. In the afternoon’s more direct and powerful diagonal rays, #6168 possesses a distinctly greenish tint. In evening time, bathed in artificial light, #6168 it presents itself as a most subtle off-white that is barely blushed with grey.

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**SW 6168 Moderne White**

*Interior / Exterior*

**Color Family:** Whites

**Color Strip:** 25

**RGB Value:** R-226 | G-225 | B-216

**Hexadecimal Value:** #E2E1D8

**LRV:** 75³

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*Wisdom is something cold, and to that extent foolish. (Faith, on the other hand, a passion.) We might also say: wisdom merely conceals life from you. (Wisdom is like cold, grey ash covering the glowing embers.)*

-Ludwig Wittgenstein, 1947.⁴

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⁴ Wittgenstein, Theory and the Arts edited by Richard Allen, Malcolm Turvey, Professor of Film History and Chair of Visual Culture Department Malcolm Turve. 2001.
After the famous publication by Sam Harris *Free Will* (2012), the debate on this subject has gotten more attention in the media and the scientific community. As a neuroscientist from Stanford, Harris offers an interesting approach by providing a neuroscientific explanation to support his free will skepticism. Starting with the so-called “evidenced based” electroencephalogram studies that would probe an unconscious “a priori” electrical activity prior to an “a posteriori” conscious thought. Harris proposes that since all human behavior is anticipated by subcortical structures, free will is scientifically not possible and incompatible with the physicalist model of medicine and neuroscience. For Harris, human behavior is reduced to our brain’s reflexive responses to environmental stimuli. That is a brain solely influenced by the genes we inherited whose expression also depend on our environmental experiences.

Harris’s approach is consistent with traditional determinism. Psychologically, knowledge of the lack of free will can potentially cause a significant narcissistic injury. Our actions would therefore not be determined by our conscious will. In other words, there would be no freedom. A human would be no different from a body snatcher or a philosophical zombie. When reading his book, Harris first slaps you in the face, then punches you in the stomach, and later he slowly starts to break each bone of your body and when you are ready to receive the final estocada, he rescues you and offers good advice for coping with the tragedy and for pursuing an even better life.

As a counterpoint to Harris’s book, Mark Balaguer, a philosopher at California State University published his *Free Will* (2014), offering philosophical arguments to suggest that while many of our actions can at times limit our freedom, there is still room for freedom of choice. If, for Harris, free will is incompatible with determinism, for Balaguer, a compatibility model between free will and determinism is possible.

While Harris’s arguments are convincing, we must nevertheless say that an incompatibility model in a human deterministic model of behavior carries potential risks. For instance, Harris starts from a more localizationist model of the mind, in which “consciousness” is located in the cortex and the “unconscious” is contained within the subcortical brain including the basal ganglia and the cerebellum. By this model, an electroencephalogram study showing...
subcortical electrical activity prior to its manifestation in the cortex proves a lack of conscious decision making. As we continue to understand the role of subcortical structures such as the basal ganglia and cerebellum, however, we come to the realization that we can no longer carry this assumption as a matter of fact. A strict binary model for cortical consciousness versus subcortical unconsciousness might be too simplistic. Instead, an integrative and holistic model begins to make more sense: The cortex, the basal ganglia, the thalamus, the cerebellum, and even the spinal cord could potentially play a role in intentional conscious behavior. The plot thickens even more when we integrate our knowledge about near death experiences. A percentage of individuals with no electrical activity in their electroencephalograms during cardiac arrest report out of body experiences and are able to recall accurate events and scenes despite being deprived of all senses. Given these findings, some scholars propose a non-local theory of consciousness, that is to say, a consciousness outside the brain.

In psychiatry, the classical mind-body dualistic model of the mind has been gradually shifting towards a physicalist deterministic model in which all behaviors have a physical substrate. Space for compatibility with free will, however, is still needed, at least for current psychiatric therapies. Psychoanalysts, for example, believe that the weight of the unconscious mind could be about ninety percent being consciousness just the tip of the iceberg. In psychoanalytic therapy, one can become aware of the unconscious drives and memories that play a role in our actions through free association of random thoughts and dreams; and therefore could become the subject of conscious manipulation. Cognitive psychotherapy techniques help patients become aware of cognitive distortions and negative thoughts that result in bad emotions and reactions. By cognitive exercises and homework assignments, a patient puts alternative behaviors into practice that will shape their emotions and their reactions. As therapists, we rely on patients’ free will decision making and introduce personal responsibility for their actions using their new knowledge about their inner psychology. Even when the therapist is logically providing a significant influence on a patient’s future behavior, space for compatibility of free will allows room for the patient to regain and reinforce control over their own behaviors. In somatic therapy, a conscious decision to take a medication will result in an unconscious placebo response and vice versa. As a result, a physicalist, deterministic but still compatibilist model for the mind can be more helpful.

Free will as such, is an abstract concept that serves society to establish regulations. Without free will, our entire legal, moral, and ethical system is tested. One of the first persons to propose a free will model of human intention was Zarathustra, who emphasized the ability of humans to choose between right or wrong. According to him, if we choose good thoughts and deeds we contribute to the divine force and create better selves and a better world. Even religions have different approaches to free will. While Catholics embrace free will, Lutherans
believe humans have no free will in regards to salvation. In Islam, there is more disagreement. The Mutazili accept free will and the Hanbali reject it. Jews instead accept a compatibility of both, known as the free will paradox: “Everything is foreseen; yet free will is given” (Rabbi Akiva, Pirkei Avoth 3:15).

The free will debate will continue for centuries and for the most part will go unresolved. Arguments for and against it will continue to emerge with new discoveries and philosophical theories. Nevertheless, both free will believers and free will skeptics may not be that different psychologically. In both cases, there is a motivation for control, control over choices in one’s life or control over a philosophical question that goes unresolved. Perhaps a dichotomic approach to the existence of free will will not relieve our anxiety. Perhaps an attitude towards a comfortable acceptance about the unknown might be, whether free or not, a more relieving choice.

References

1. Free Will, Sam Harris, Free Press, New York, NY, 2012

For a medieval Christian the beginning of the existence was clearly narrated in the book of Genesis: God had created the light, the world, the stars, the animals and man. Everything that happened since then until their contemporary time was the past. But what was the future? The future had been revealed to John, who had written it in the Apocalypse or Book of Revelation: a series of phantasmagorical events that would take place at the end of times.

After the brutal crucifixion of Christ, his followers realized that nothing had changed and that the messianic era had not yet started. According to messianic prophecies a world free of war and sorrow was to come after the coming of the Messiah. Part of the current historiography has considered the resurrection of Christ and His Second Coming an invention of Christ’s disciples to justify the fact that the world was still the same after their master’s death. In Christian eyes their contemporary reality was therefore an intermediate period in which humankind would be tested before the Last Judgment in the Second Coming of the Messiah.\(^1\) Thanks to the revelations to John, narrated in the Apocalypse, Christians knew exactly what the future would be. John does not clarify when the Last Judgment was going to happen, but he adds that it will be soon. This assertion has made possible many conjectures and prophecies towards an imminent Last Judgment.

Even if the Book of Revelation was viewed with suspicion in the Eastern Church, it was accepted in the West since the beginning of Christianity. Different church authorities –Saint Jerome, Ticonius or Saint Agustin- commented his contents since late Antiquity, which proves the fascination that this book caused in the West. Probably the most popular commentary on the

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Apocalypse was the one written by Beatus of Liebana between 784-786 in the Christian Kingdom of Asturias. Since in the apocalyptic tradition the world was to last 6,000 years, it seems that Beatus believed that Christ was born in the year 5,200 after the creation of the world, thus the world was to end in the year 800. By the time Beatus wrote his commentary on the Apocalypse, there was an incipient heresy in the metropolitan church of Toledo. The bishops of Toledo and Urgell proposed that Christ had not been born as the Son of God, but that he had been adopted by God as an adult. Beatus aligned with the catholic Trinitarian concept defended by the pope and the court of Charlemagne and used his commentary on the Apocalypse to criticize heretics.² Probably due to the expectancy of the end of the world in the year 1000, the Commentary on the Apocalypse by Beatus of Liebana turned extremely popular in the previous decades to the year 1000 and was widely copied in Spanish scriptoria.³ In the context of the Reconquista (the period in which Christians took over the territories of the Iberian peninsula from Islamic control), the heretics that Beatus had identified with the followers of adoptionism are instead visually identified in the illustrations of the manuscripts with contemporary Muslims. This is the case of the so-called Morgan Beatus, illustrated by Magius in the second half of the 10th century, in which there are some references to Islam in a negative context. A good example is the whore of Babylonia adored by the kings of all nations that had fornicated with her (fig. 1). As a symbol of lasciviousness and moral depravation, she is depicted with an Islamic crown with decorations that recall the mosque of Cordoba seated on a Muslim cushion.⁴

One of the most important passages of the Book of Revelation describes the New Jerusalem, an ideal city in heaven that came to be identified with the image of paradise. The heavenly Jerusalem is described as a walled square city with twelve gates covered of precious and jasper stones and gold. This description was used to depict heaven since early Christianity; thus, the mosaics of the triumphal arch in apse of the 5th century basilica of Santa Maria Maggiore in Rome present the New

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⁴ Yarza, Beato de Liébana, p. 92. (fol. 194v) A similar miniature can be found on the beatus of Valcavado, f. 166v., p. 105.
Jerusalem as a symbol of paradise (fig 2).\(^5\) The truth is that all medieval architecture has had the intention to reproduce the appearance of the heavenly Jerusalem: in Byzantine art using golden mosaics in the interior of the temples, in Romanesque art through fresco paintings that covered the walls with the imitations of precious stones and in Gothic art with the ubiquitous stained glass windows.\(^6\)

Based on previous visions of the Old Testament prophets -Ezechiel 1-3 and Isaiah 6, 1-3- the Book of Revelation offer an accurate insight of the appearance of God in heaven:

“At once I was in the Spirit, and there before me was a throne in heaven with someone sitting on it. And the one who sat there had the appearance of jasper and ruby. A rainbow that shone like an emerald encircled the throne. Surrounding the throne were twenty-four other thrones, and seated on them were twenty-four elders. They were dressed in white and had crowns of gold on their heads. From the throne came flashes of lightning, rumblings and peals of thunder. In front of the throne, seven lamps were blazing. These are the seven spirits of God. Also in front of the throne there was what looked like a sea of glass, clear as crystal. In the center, around the throne, were four living creatures, and they were covered with eyes, in front and in back. The first living creature was like a lion, the second was like an ox, the third had a face like a man, and the fourth was like a flying eagle. Each of the four living creatures had six wings and was covered with eyes all around, even under its wings (Revelation 4: 2-8).”

This description has been the most depicted subject in Christian art. Whereas Christ was

usually depicted performing miracles in late roman and early medieval art, after the 8th century he was usually portrayed according to the revelations to John. Christ was attired with the toga of a philosopher blessing with his right hand, an appropriate gesture of ancient orators that was based on clerical authority and stressed by the book on his left hand. His divine status is indicated by his cruciform halo and the mandorla –the almond shaped frame that surrounds Him.\(^7\) Christ in heaven as described in the Apocalypse was frequently depicted in early medieval art both in fresco and manuscript illumination. One of the most accurate representations of Christ following the Book of Revelation is the fresco that covers the apse of the early Romanesque church of San Clemente de Tahull (Lérida, Spain) (fig. 3). Christ is enclosed in a mandorla, with a cruciform halo, blessing with his right hand and holding a book with his left hand. The book is open and we can read the sentence: \textit{Ego sum lux mundi} (I am the light of the world, John 8:12) that supports the eternal metaphor of God is equal to the light and sun. Other apocalyptic features are the Greek letters alpha and omega that symbolize that Christ is the beginning and the end of existence (Revelation 21: 6). Around Christ we can find the four living creatures described in the Apocalypse that could be found also in Ezechiel 1: 10. The four living creatures with the face of man, an ox, a lion and an eagle derived from ancient middle eastern iconography but in Christian culture came to be identified with the four canonical Gospel writers: Matthew, Mark, Luke and John. On the apse of San Clemente de Tahull, Matthew is not accompanied by any beast, since he was traditionally associated with the man, John holds an eagle and Mark and Luke are accompanied by the lion and the bull covered with eyes in front and back as it is described on the biblical vision.\(^8\) Right in front of the representation of Christ in heaven we can find the Lamb of God (fig. 4), another very interesting apocalyptic vision:

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“And I beheld, and, in the midst of the throne and of the four beasts, and in the midst of the elders, stood a Lamb as it had been slain, having seven horns and seven eyes, which are the seven Spirits of God sent forth into all the earth. And he came and took the book out of the right hand of him that sat upon the throne” (Revelation 5: 6-8).
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Medieval people identified the Lamb with Jesus, since he had been offered in sacrifice

\(^7\) Jean Wirth, \textit{L'image à l’époque romane}, Paris: Cerf, 1999, pp. 47-50. \\
by his father for the redemption of humankind. In fact, the lamb of San Clemente bears the cruciform halo to show that he is actually Christ opening the seven seals of the book that he is holding. The representation of the lamb as Christ is ubiquitous in medieval art; nonetheless, it is far less common to see a depiction of the lamb close to the description of John in the Book of Revelation, since it could be considered a deformity. The Lamb of San Clemente lacks the seven horns, but he has seven eyes on his face, an uncommon feature in Western medieval art.

Another popular representation of the vision of Christ in heaven as it is described in the Apocalypse is the 12th century tympanum of the French abbey of Saint Peter in Moissac, which shows the aforementioned vision of John with an even higher degree of accuracy (fig. 5). Like in the fresco of San Clemente, Christ in majesty is surrounded by the four living creatures and two seraphs (Isaiah 6: 2). Nonetheless, the sculpted tympanum includes the twenty-four elders that play musical instruments. Christ surrounded by the four living creatures and the twenty-four elders became a standard representation in 12th century and 13th century art, frequently in the iconography of the Last Judgment.

In the Middle Ages the Last Judgment was the ultimate future. Christ would come for a second time, would judge our souls and the messianic era would finally be fulfilled. The Last Judgment was frequently depicted in French tympana during the 12th and 13th centuries. The motif of the Last Judgment was based on the Egyptian psychostasia or weighing of souls, a scene that depicts the deceased being judged by Osiris. If the judgment were favorable, the dead would eternally live in the afterlife, but if he had not behaved according to the absolute principles of justice, a monster

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would devour them and their soul would be eternally extinguished. A further passage of the Apocalypse supports the psychostasia:

Then I saw a great white throne and him who was seated on it. The earth and the heavens fled from his presence, and there was no place for them. And I saw the dead, great and small, standing before the throne, and books were opened. Another book was opened, which is the book of life. The dead were judged according to what they had done as recorded in the books. The sea gave up the dead that were in it, and death and Hades gave up the dead that were in them, and each person was judged according to what they had done. Then death and Hades were thrown into the lake of fire. The lake of fire is the second death. Anyone whose name was not found written in the book of life was thrown into the lake of fire (Revelation 20: 11-15).

Besides the influence of the Egyptian psychostasia, Western Last Judgments were based on earlier Byzantine prototypes where this iconography had already been developed. The weighing of souls in this case is carried out by Saint Michael and the devil. According to their behavior in life, the blessed would go to heaven, and the damned would eternally burn in hell suffering the torture of demons. We can see such a scene on the French tympanum of Saint Lazare of Autun (fig. 6). The central part of the tympanum follows the Byzantine prototype: Christ in the center judges, on His right the blessed are guided to the gates of heaven by Saint Peter, whereas on His left the damned are directed to hell after the weighing of souls. Following the apocalyptic passage, the lintel represents the raising of the dead from their graves for their souls to be judged. The official message of the Church is clear: if you follow a pious life according to Christ’s teachings, you will enjoy paradise; otherwise your suffering will be eternal. This was a very powerful weapon of propaganda to exert control over society: “Do what we tell you to do, or you will go to hell”. The inscription on the tympanum supports this message: OMNIA DISPONO SOLUS MERITOSQUE CORONO. QUOS SCELUS EXERCET ME JUDICE POENA COERCET (“I alone dispose all things and crown the deserving. Those whom crime binds are punished according to my judgment”). Even if in theory the judge is Christ, the words and manner in which this sentence is formulated is intimately related to the legal texts of the Church. In our world Christ is represented by the Church, so clerics are in charge of deciding who will be blessed or damned in the afterlife. The Last Judgment was thereby the most powerful instrument the Church had to exercise control over the mentality of the time.

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13 Ibid., pp. 542-547.
The Apocalypse was one of the most important books in medieval art and thought. Thanks to these revelations, Christians were aware of the appearance of God, paradise and knew that one day Jesus will judge their deeds on earth. For their souls to be saved, they would have to follow the Christian doctrine administered by the contemporary Church.

![Fig. 6 Tympanum of Saint Lazarus of Autun, France](image)
The 20th century has been a century of research, development and progress that allowed us to expand the life expectancy at unimaginable levels. But technology has developed at rates that human evolution cannot match. Humans are complex organisms that need a long time to evolve because improved or new functions of organs need a diverse array of DNA mutations. Currently, many drugs allow people with illnesses to live longer, and thus they have more chances to procreate, something unlikely several decades ago. We should add the different procreation rate between different socio-economical classes. People with low income or lack of culture tend to have more offspring than wealthy families. Eugenics (a middle point between philosophy and genome science), propose that we should go to the scenario projected in the film Gattaca allowing only the genetically superior to thrive, so that the human species continues to evolve. The problem is that we still don’t know what “superior” means, and additionally, genetic biodiversity provides a powerful resource for future challenges (environment, pathogens, etc.). Furthermore, there is not a “superior” concept that fits all. For instance, in sports, you need a completely different muscular conformation when running 100 meters or a marathon. You cannot be the best in everything.

Another potential hurdle for human evolution could be related to the fecundation process. It has always been said that the fittest spermatozoid will be the one in charge of fecundation, so to say the fastest, since only one can form the zygote with the ovule (with the only exception of non-identical twins). So, why the fastest spermatozoid would be the fittest in terms of mature/developed human? What if there is a bottle neck for evolution between the need for speed on a spermatozoid and the need for improved traits on a developed human being? I
think we should study the traits of in-vitro fertilized humans (some of them identical twins) and check for new or improved traits.

Genetic engineering is a powerful tool that is constantly growing and expanding. However, the great potential of genetic engineering has been perverted by some scientist with the creation of fluorescence animals for commercial purposes, and not for a deeper investigation of any key biological process. Glo Fish was the first genetically modified animal to become publicly available as a pet when it was introduced for sale in 2003. With a strong capitalist world we find science used for profit, not to cure illnesses, to protect the environment, to discover the Universe or to figure out the origins of life and matter. Thus, the popular opinion has gone against genetic manipulation, as it is sometimes seen as something frivol. Even more, in South Korea there is a company called Sooam that can clone your dog for 100,000 US$. “Sooam not only performs dog cloning research, but we also heal the broken hearts” they claim in their website (http://en.sooam.com/). And prices will go down as technology keeps improving and other companies get into the business. This practices gave Greenpeace the wrong arguments against genetically modified crops, which could ameliorate the nutrition problems of the poor countries.

Even though the completion of the human genome sequence has not been the fountain of youth it promised, it has some good applications. The best known application is the potential to detect genetic disorders and predict risk rates (based on number of people with the same DNA sequence that ended up having a specific disease, so statistics). For example, we all know that Angelina Jolie decided to remove her mammary tissue to avoid her high risk of breast cancer. It also has the potential to tell a doctor whether a drug will probably work or not in any given patient. And again it would be based on the number of people with similar DNA sequence that properly responded (or not) to the drug. But this later application has a dark side if in the wrong hands: it can also tell susceptibility to a toxin that would kill you more easily than the others. Privacy comes to play here.

Let’s not forget something: what do the cells from your brain have in common with the cells of your eyes? What do the cells from your bladder have in common with the cells of your heart? They all share the exact same DNA sequence, that’s all. Scientist still struggle to explain why they are so different and how they coordinate so precisely to form organs and tissues. This illustrates that your DNA sequence is not the answer to all the good and bad things that occur to you (identical twins prove that too). There is also an important environmental effect, and epigenetic factors (which is everything related to the DNA that we can’t explain just with the plain DNA sequence).
Despite all the advances, we are still far from knowing what makes a human genetically more competitive than others. We are in a stage focused on healing diseases, not improving healthy individuals. There are three main reasons for this: first, it is easier to detect DNA patterns in some illnesses compared to high-performing traits that are usually multifactorial. Second, the desperation of sick people encourages more willingness to be involved in genome studies (they are more prone to disregard the data-sharing risks), and lastly, there are still more profits in healing sick people than in improving traits of wealthy individuals.

And how much space does your genome use from your hard drive? Well, it depends on several factors as Reid J. Robison pointed out (https://medium.com/precision-medicine/how-big-is-the-human-genome-e90ca3409b0). Only the sequence of letters As, Gs, Cs and Ts would occupy around 800 Mb (for around 3 billion letters). But it is very important to take into account the quality of the sequence. Your genome is sequenced after chopping it, and then more or less short reads are performed. But those millions of reads don’t have the same quality, so some could not be very trustworthy whereas others fragments have been read many times (by random) and produce a very confident sequence. If you want to include the quality of those reads of your genome sequencing, it could be around 100-200 Gb (the number of reads can vary widely and also the method used for sequencing). But as many people know, the difference in sequence between humans and chimpanzees is around 1% and between humans is around 0.1%. So, how much data is needed to differentiate us? This is difficult to answer and most likely it will change in the future, but it would be around 100-200 Mb. Easy to carry in a flash drive (or future chips?).

Low DNA sequencing prices and promises of genetist about the potential of the data, has attracted the attention of big companies. Scary enough, even Google is now in the genome business, currently charging $25/year to store a single human genome, and Amazon also wants to get in the business. By November of 2014 more than 3500 genomes were already stored at Google Genomics from public projects. Similar to Facebook they do not clearly state what happened with your genome after you decide not to continue their service. They state in the legal section “upon request, each party will use commercially reasonable efforts to return or destroy all Confidential Information of the other party“, which is clearly contradictory since it could be “commercially” more interesting to keep your DNA sequence. Besides, Google Genomics is part of the “Global Alliance for Genomics and Health”, a partnership of more than 175 international corporations and organizations. The majority are companies looking to gain profit, but there are also some non-profit associations. The “alliance” have several working groups and the Regulatory and Ethics working group recently released a document on how to get your patients’ genome shared internationally (http://genomicsandhealth.org/our-work/working-groups/regulatory-and-ethics-working-group/work-products). The name of this
working group is misleading and should be changed, since they seem to work as a tool for the companies. Indeed, the whole “Global Alliance for Genomics and Health” is deceiving because it appears to be an instrument for the companies, and not useful for the patients perspective. On the other hand, the Genetic Alliance appears to be a patient-centered organization (http://www.geneticalliance.org/). They propose a dynamic consent about genome data sharing. A “broad consent” form for genome data sharing studies is not the most appropriate approach. Continuous information (dynamic and comprehensive) should be given to the participant so that (s)he can understand the risks and benefits of sharing, and even more, to choose what part of your genome you want to share for a specific study (http://www.geneticalliance.org/sites/default/files/policy_statements/NIHResponseGenomicDataSharing.pdf).

According to the US Genetic Information Nondiscrimination Act (GINA) you cannot be discriminated against based on health insurance and employment due to your genetic material. However, it doesn’t cover the military, life insurance companies, long term care, or person to person discrimination. Even though this does not seem like enough, not every country has this minimum legislation. As a genome “hacker”, Dr. Yaniv Erlich from MIT proved in 2013 with the anonymous raw genome data available, that he was able to form the biggest phylogenetic tree to date, and even more, identify individuals based on the age, geographic area and the Y chromosome (that would only be transmitted between man, the same way as the last name is transmitted). “Be prepared for a big genome leak,” said Steven E. Brenner from the University of California Berkeley in Nature.

At present, since we don’t know the genetic origins of most illnesses, a healthy individual has more to lose than to win with a complete DNA sequencing of his/her genome. With this benefit-risk ratio, I think we should start collecting data from the elderly which won’t be influenced by the misconduct of health insurance companies or employers. Everybody could voluntarily sign for donating their own genome once deceased, the same as you can donate your organs. Just for Science. There are no major ethical issues, and a complete medical history could be linked to your genome once you die. The only ethical problem could come from family members, since some mutations could be shared due to heritability.
Future Directions For Social Media And Psychiatry

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With the growing use of social media by the public, there have been concerns and hopes for the future of social media in Psychiatry. The culture of medicine values privacy, confidential one-on-one interactions and formal conduct. Social media is about sharing, openness, transparency and informality. As the use of social media increases, Psychiatrists need to be aware of social media sites and how their patients use them. Some hospitals, medical schools and professional organizations have issued guidelines regarding social media. Some of those institutions recommend against using social media. This would be assuming only the worst of social media and not appreciating the benefits it could have for our patients.

Social media has been defined as “software that enables individuals and communities to gather, communicate, share, and in some cases collaborate or play”. Using this definition, social media can include blogs, information sharing sites such as Wikipedia, social networking sites such as Facebook, and games popular as “apps” on smart phones. Social media has also shaped the world including political revolutions, the decline of print news media, spreading information, such as natural disasters, and access to free (accurate or inaccurate) information. Social media has also been accused of shortening children’s attention spans, impairing developing social and communication skills, and ruining confidentiality. (1)

The numbers of social media users has continued to grow since the first use of “Weblogs” (later shortened to “blogs”) in the 1990s (2). The number of American adults using social media doubled from 26% in 2008 to 47% in 2011 (1). Daily internet use among minors saw...
dramatic increases as well. In 2000, 73% of American children and teenagers used the internet daily. By 2009, that number was 95% (3). By 2012, there were a billion profiles on Facebook implying that one out of seven humans on the planet had a Facebook profile (4). That same year, 94% of teens reported having a Facebook profile while 26% reported using Twitter (3). The percentage of doctors using social media was 41% in 2010 and then 90% in 2011. The percentage of medical students using social media is above 90% (4).

One of the major concerns with Social Media use and Psychiatry is Confidentiality breeches. This is largely because of actual cases in the news media of people being terminated for posting photos of procedures or posting identifying patient information online (4). Some studies have looked into this. One 2006 study found that within 271 medical blogs, 16.6% had enough information for to identify the patient. A 2009 study polled US medical school administrators and found that 13% dealt with students violating patient confidentiality online. The same author examined 260 self-identified physicians on Twitter in a 2011 study. This study followed those Twitter accounts for one month including 5156 tweets in which 38 violated patient privacy (1).

Considering these concerns and health care workers principals of patient confidentiality, duty of care, fiduciary duty, and laws, guidelines and policies are needed (5). Some hospitals and medical schools have issued specific guidelines but these hospitals and schools are in the minority (1). The National Labor Relations Board has issued guidelines entitled “Report of the Acting General Counsel Concerning Social Media Cases”. One piece of literature quoting an executive from a hospital system stating that employees can police themselves by alerting their employers of infractions. (6) These guidelines and colleague policing are helpful, but a complete lack of guidelines or overarching recommendations to not use social media is dangerous considering social media is the norm for health care workers. Ignoring the power of social media is also a mistake considering the potential it has for communication. It is the future of social communication.

Social media can be used to enhance communication with patients and between health care workers. Professional sites such as LinkedIn, ResearchGate, QuanitaMD, Sermia, Doximity and iMedExchange exist to facilitate exchanging information (4). Other venues to share medical information include blogs, such as The Clinical Cases Blog, Twitter Journal Club, mentorship within companies and schools, case discussions, or discussion in Facebook groups of policies (3).

Another important aspect is the fact that many patients and their loved ones find support and education for specific conditions on social media sites. These groups and sites can be used for patient-to-patient support, family member support, fundraising, information sharing and to
receive supportive feedback. One such piece of literature documented such an example on Youtube for Multiple Sclerosis. Although beneficial, this study found that staff from a pharmaceutical company solicited people to contact their representatives and become public advocates for specific medications. (3)

Other some aspects are concerning, it is because of these benefits that social media could be used to enhance patient care. In the pursuit of certification as a Patient Centered Medical Home, a Primary Physician could use social media to provide education resources, counsel the majority of their patients to adopt healthy lifestyles and promote ways to achieve those healthy lifestyles. This could easily be done, and cost effective, if a Physician or office staff member could post accurate information regarding health screenings or new information regarding treatments.

Social media has implications for how our patients interact socially and how they obtain information about their health. As social media and the internet become increasingly popular and normative, it is probable that it will be the normative social and community communication. They will be the new community bulletin board, the new pamphlet tower, and new library. Medicine and health care should keep up with this medium. Fear of potential confidentiality breeches and social media would result in ignoring a helpful tool to educate and communicate with our patients in the future.

References:

Human Extinction

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Human extinction is a hypothesis predicting that like many other species, the human race will also become extinct at some point in the future. Extinction anxiety has been a constant throughout history and end of the world narratives have existed in literature since the beginning of civilization. One of the earliest examples of such stories is the universal flood depicted in the Epic of Gilgamesh and the book of Genesis. In the Bible version, God attempts to reverse his creation by causing a massive flood on earth as a punishment for human misdeeds. To survive, Noah builds an ark in which he preserves the lives of his family members and animals aboard the ark. (1) Another popular end of the world narrative is Nostradamus’ prophecies (1555). Although his predictions were for the most part undated, aficionados of today enjoy connecting recent disasters (e.g. 9/11) to Nostradamus’ prophecies. (2)

Perhaps one of the earliest catastrophic events in human history is the Toba supereruption which took place in what is now Indonesia. The Toba theory suggests that approximately 75 thousands years ago a massive volcanic eruption took place resulting in a dramatic reduction in the human population and leaving just a few thousand alive. This theory has led a to genetic bottleneck hypothesis explaining why most humans today come from a relatively small genetic pool. (3) If this theory is confirmed, the total number of Neanderthals in Eurasia would have been dramatically reduced. For instance in Spain, recent paleontologists suggest that the total number of Neanderthal population (the native European human species) could have been just a few thousand individuals at the arrival of the Homo sapiens (African invaders) 40 thousands years ago. An encounter between the two species, however, has not been archeologically confirmed.

Another catastrophic event that threatened human existence was the black death, a pandemic that took place between 1346 and 1353. Black death claimed the lives of approximately 60% of the European population and reduced the total human population from
450 million to 350 million. More recently, the disasters of World War II (1939-1945) resulted in the death of approximately 60 million people, roughly 3% of the total population in 1939.

Despite the continued growth of the world’s total population, significant anxiety about a new human catastrophe exists. Prophets, politicians and scientists signal global warming, pandemic risk and nuclear wars as real threats.

The Future of Humanity Institute (FHI) was founded by Nick Bostrom in 2005 at the Faculty of Philosophy and Oxford University, U.K. At the Global catastrophic risk conference of 2008 it was estimated that the risk of catastrophe prior to 2100 was 19%, the major risk factors including molecular nanotechnology weapons (5%), artificial intelligence (5%), wars (4%), engineered pandemic (2%), nuclear war (1%), nanotechnology accident (0.5%), natural pandemic (0.05 %), nuclear terrorism (0.03%). (4)

Another factor that could threaten the future of humanity is world overpopulation. It is estimated that by 2026 there will be 8 billion people and by 2042, 9 billion. (5) In a few centuries or decades the world population could equal the current paleodemographic estimate of the total number of people that ever lived (between 100-115 billion). Population growth has thus far been sustained by advances in agricultural, medical and industrial technology. (6) Scientists like Carl Sagan and Stephen Hawking, however, have proposed that the best approach to preserve our species is in space exploration and the discovery of new habitable planets. Matt Mountain, director of the Space Telescope Science Institute in Baltimore stated last July that between 10 to 20 % of the stars around us have planets like the Earth in habitable zones. (7) While we still have yet to develop the technology to reach those planets, science fiction points out that wormhole travel could help in this endeavor.

Existentially speaking, human extinction theories provoke fascinating discussion and bring to light many ethical dilemmas. A couple of weeks ago I visited the Museum of Natural History. In the midst of the noisy holiday crowds, examining the

In recent film Interstellar (2014) humans attempt to escape extinction by reaching other planets via wormhole travel

In The Planet of The Apes (1968), Homo Sapiens faces extinction and is being replaced by a more environmentally concerned human species

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fossilized human skulls and primitive tools, I was able to abstract myself and reflect on the human extinction hypothesis. All species at some point become extinct. Dinosaurs, for example, were able to survive on our planet for 135 million years. In contrast, we, the Homo sapiens, the only surviving human species, have been on this planet only about 250 thousand years. Independent of an imminent catastrophe, it is reasonable to believe that over the next few million years, we will become extinct. Unlike dinosaurs, however, humans are aware of their own mortality and the limited time of existence on this planet. While the knowledge of our individual vulnerability can push us towards the pursuit of happiness, we can experience a great deal of existential anxiety related to awareness of our inevitable death. Religion, philosophy and art are cognitive constructs developed by humans that help us cope with this type of existential anxiety. If only we could become more aware of our own vulnerability, not only at an individual level, but at a species level, societies would start making more efforts to increase tolerance for intrasocietal and international differences and encourage collaboration for the creation of a better world, without wars, without oppression, and without injustice. This way, we would be probably able to better cope with the anxiety related to the knowledge of the finite existence of the human species.

References and further reading:

1. Genesis, Old Testament, Bible


4. http://www.fhi.ox.ac.uk/


7. http://www.nasa.gov/content/finding-life-beyond-earth-is-within-reach/
Fritz Lang’s *Metropolis* was said to be inspired by a trip the director took to 1920’s New York. He seemed to notice a trend in the world at that time, that we humans had great ambitions for the future, but through the film he tells a tale of warning in that when building the future it is important to not forget the past. The main protagonist of the film is Freder, a young, naïve aristocrat, who is suddenly exposed to a life below the surface that makes him question his own existence and the motives of his father, Fredersen. The film warns us, through Freder’s visions, that this tale will be similar to the story of the tower of Babel, and that many involved will be guilty of embodying at least one of the seven deadly sins. This text will attempt to avoid destroying essential plot-points, as if you have not seen this film, you really should, instead it will focus on some central themes that Lang covers in this work, with the hopes that the spoilers below are minimal and do not take away from the new viewer’s experience. The three most prominent themes covered by Lang are a discussion of duality, time and the basal drives of man.

Duality, or lack thereof, is the main, overacting theme of this work. Most immediately, it is embodied by the characters of Fredersen, the businessman, and by Rotwang, the scientist. At one point, both men had vied for the love of a single woman, Hel (a clear reference to Helen of Troy), and both who have grand visions for what a utopian society would be, but they see different ways of getting there. Fredersen is a man that believes he knows what is good for humanity. He is certain that to create a balance, there will be winners and losers. People can function as either good, or bad, and will reap the consequences of each. This can be seen in the way he treats his servant, Josaphat. When he is pleased with his work, he may stay above
ground, but after he makes a mistake, Josaphat is banished from the realm of the top dwellers and is ordered to enter the depths. Rotwang, on the other hand, believes that to an extent we will all be losers, after all, he himself suffered the loss of Hel’s love to Fredersen, and has spent the rest of his life constructing the automaton with the hopes that he may one day bring her back. Although, he too realizes that this is more of a consolation prize. When the opportunity comes, he decides to use the robot not to resurrect his own love, but as a Trojan horse of sorts to help to create a new type of balance in the city. One that is less logical and exacting, but rather built from chaos which, when ended, will allow the ordering of things to happen more naturally where only the laws of nature are the judge rather than the will of man.

Another theme tackled by Lang is the idea of time, and how it traps us as humans. Freder encounters a worker who is manning a machine that much resembles a clock, which if one was not to notice, is made perfectly clear through the visual story-telling. The worker, Gregory, is having a hard time keeping up with watching and reacting to the constantly changing lights on the “watch”. His worker number, 11811, drives home the point that this is a futile pursuit. The city and this clock, function as a machine, and if read in machine language, that number would communicate, “On and on, forever (infinity), on and on”. The caring Freder is compelled to help Gregory and offers to give him a break. Soon, however the nature of this task is learned by Freder, and he too becomes exhausted by the activity.

As mentioned above, the automaton is used by Rotwang to disrupt both the world of the Top-dwellers and also the dwellers of the depths. The automaton takes the form of a beautiful and charismatic character of Maria. Clearly Rotwang is trying to capitalize on Freud’s theory of man’s basic drive being the Libido. His tactics indeed work, and soon, the citizenry are reacting emotionally, illogically, and largely against their own best interests. They even forget about the well-being of their own children. Lang’s message is that sex can be used as a dangerous weapon, that not only brings about lust, but also elements of greed, wrath, envy, and pride as well.

So, what can one learn from viewing Metropolis? Perhaps it’s not really about duality, or time, or unconscious drives, but all three. This is the nature of man’s existence. One could argue that the film simply states that the will of man cannot overcome the will of nature. That time, is a construct that will soon become all consuming if you let it, and finally, that humans are inherently illogical, emotional creatures, as much as we feel otherwise. It is important to use time to take a step back and realize that to make a sound decision, you must learn that “the way to connect the head and the hands is through the heart”.
Science fiction movies usually warn us about possible futures. Psychoanalysts say that science fiction, as fantasy, is the expression of repressed fears or desires (1). Therefore, the dilemmas exposed in science fiction books and movies are the reflection of current human fears. Using as reference other authors’ academic work, I will try to examine what the movie *Blade Runner* is trying to tell us about both a possible future and the dilemmas of our present.

The movie was directed by Ridley Scott in 1982 and is based on the 1968 novel “Do androids dream of electric sheep?” by Philip K. Dick. In a near future, human beings have almost lost his sense of empathy: Industrialized crowded cities have expanded vastly embracing the planet. Uncontrolled climate change has killed most of animal species. Only the rich people are allowed to migrate to the off-world colonies. The ill and the poor live isolated in abandoned buildings, surrounded by colorful media that tells them about the off-world colonies they will never go to. Big corporations control everything from skyscrapers high above. Their excellent scientists have created artificial human beings using complex genetic bioengineering. These human creations have human adult appearance and are called *replicants*. They were created to work as slaves in the off-world human colonies. Their rights are meaningless and their life span is limited purposefully to only 4 years. But they want to live longer, and six of them return to Earth with the plan to find their creator to persuade him to prolong their lives. Roy (Rutger Hauer) is the replicants’ leader, and Deckard (Harrison Ford) the bounty hunter, or blade runner, hired to hunt them.
The movie depiction of a possible future exposes the risks of technological proliferation; environmental degradation and economic repression are the norm more than the exception (2). Contrary to the modernism and positivist theories, that conceived a future that could bring us beautiful super populated “paradisiac” cities, Blade Runner shows an urban postindustrial decadent and isolating environment, crowded with a mixture of people from different cultures, where waste, rain and abandoned buildings share the space with gargantuan skyscrapers and colorful media (3). The director manages to create a multicultural decadent urban setting that is perceived as potentially possible in the viewers’ future (2,4). Citizens have to adapt by acquiring different psychological defenses, pursuing dignity and identity in a challenging environment, and the movie is also a reflection about our own fears and troubles adapting to the urban world. For all these reasons, Blade Runner has continued to be acclaimed years after its release and is considered one of the quintessential postmodernism films, marking a major break in previous conceptions of history, memory and human identity (5).

The debate about what means to be human is very interesting throughout the film. The viewer, through Deckard’s investigation, changes his initial perspective of replicants as simple rebel machines, towards a better understanding of their feelings, fears, motivations and goals. We see them cry, love each other and we can feel they are struggling with the knowledge of an imminent inevitable death. As if they were human beings, replicants are depicted as able to feel real human feelings. Thus, it is not clear who is a replicant and who is a human being.

The movie also prompts a reflection about subjectivity and perception of things. It is extremely rich visually, but vision and perception of things are not guarantee of truth (6). What we see is not enough to tell us what the truth is. Who is a replicant we cannot tell for sure. Maybe Deckard is a replicant too: we see his pictures in his apartment and others seem to know about what he dreams. Also, what is wrong and right is unclear: Deckard falls in love with Rachel (Sean Young) knowing she is a replicant. Interestingly, she does not know she is a replicant until Deckard perfectly describes her childhood memories. In a beautiful scene, he asks her to play the piano even though both know that those are implanted memories. The debate about what is real or not, right or wrong, becomes less important compared to what one really thinks is real or not (4). In the movie, the question about what means to be a “real” human and how to live an authentic life appears to be more important than the question about who is human or replicant (2). From a psychoanalytical perspective, it has been argued that the movie is valid as it stages a confrontation with our own “replicant-status” (6,7). Has mankind become artificial? Is this one of our fears?

Replicants are supposed to be emotionally immature because they have not had enough time to learn, but the most advanced models have memories from human beings implanted, and
also real pictures to touch, to give them a false past so they can control better their otherwise unpredictable emotions. The debate about memory and its relevance to create identity is interesting from a psychiatric standpoint. To replicants, memories allow them to have a more stable sense of self and as such, more security in relating to others. What happens then with humans? According to childhood attachment studies, the memory of low maternal care by our mother during childhood is related to significantly increased lack of trust with other adults in adulthood (8).

From a scientific perspective, Blade Runner, as other science fiction films (1), brings up several ethical questions regarding the potential limits of science in creating artificial intelligence, in this case replicants. Science fiction literature and movies have helped us think about situations that could potentially happen and prepare to prevent the ethical problems that could arise. In the movie, replicants are objects created to work under terrible conditions and with a limited lifespan. Also, they are illegal on Earth and can be killed without any trial or debate. This extreme situation could be seen as an advise on how scientists are responsible for their own creations and how we will need regulations to maintain justice and respect for our scientific creations. (9)

The movie is very complex, full of scenes with different possible interpretations. For example, at the edge of his own death Roy decides to save Deckard’s life and tell him about his prior life experiences. It is unclear what Roy seeks saving his enemy’s life: it has been argued that maybe Roy needs someone who can explain his history after he passes away (10), maybe he is showing compassion for a person suffering (6), maybe Roy believes to be an omnipotent son of God (10), or maybe he just has an impulsive contradictory final decision (2). Such is the complexity of the movie that, on the first visualization of a preliminary sketch, the director said: “It is marvelous, but what the fuck does it all mean?” (11)

Philip K Dick, who died of a stroke three months before the release of the film but had watched 40 minutes of a preliminary sketch, was in support of the movie and said that it reflected exactly the atmosphere he imagined (12). To him, it looked so realistic that he thought it would help science fiction not be to considered fiction anymore (12). Many novels of Philip K Dick expose limit situations where human beings question their preconceived reality, and he is considered one of the most important postmodernism writers. The novel “Do androids dream of electric sheep?” is different in several aspects to the movie. The replicants in the novel are androids without empathy and humanity tends to look like androids, whereas in the movie, the androids look more human than human beings (10). Both the novel and the movie seem to pursue a reflection about a threat we are all exposed to: the consequences of losing empathy and the potential dangers of hyper rationalization. The movie was not a financial success in the
theaters, but slowly became a classic that has influenced many others works of art, humanities and science. *Blade Runner* manages to reflect our fears of adaptation to our urban society, and warns us about a possible future.

References:

7. Žižek, S. "I or he or It (the Thing) Which Thinks". In *Tarrying with the negative: Kant, Hegel, and the Critique of the Ideology*. Durham NC, Duke University Press. 1993; pp 9-44.
Nowadays, even in New York City, it is not easy to go to a nice theatre and catch a good film. In the Upper East Side, in a neighborhood where I live in a studio subsidized by my hospital, and where I can barely afford groceries, the scarcity of good theatres is even more noticeable. Nevertheless, the Beekman theatre at 1271 on 2nd avenue does a decent job on a Friday when one feels too tired or too lazy to go to the Lower East side. One Friday last November, just a little after Halloween, my friend Isidro and I decided to go see a movie. A few days earlier, I had received a message from a colleague at work saying something like “Oh my God! I just saw Whiplash, it’s crazy!” The first thought that came to my mind was the song “Whiplash” from Metallica’s Kill ’em all! (great song by the way). Later, I understood he was talking about a new film. Not knowing anything else about the film other than my colleague’s text message, whose taste about cinema I completely ignored at the time, I proposed to my friend Isidro that we go see the film at the Beekman, not without first drinking an India Pale Ale at the nearby dive bar.

As we arrived for the last showing, there were not many people at the theatre. Only a few college boys who had tickets for the last of the Hunger Games saga were ahead of us having their stubs ripped. Once we were seated in the room, there was only a drunk couple about to pass out two rows ahead and a weird man with glasses, a mustache and a hood, three rows behind us on the other side of the corridor. Like I said, I had no idea what the film was about, but soon after it started I was in a trance state, unable to pay attention to anything else than the screen.

Whiplash tells the story of Andrew Neiman, a drummer and an ambitious first year jazz student at the Shaffer conservatory. Andrew is a socially inept young talented drummer whose
skills are not appreciated by the other members of his family. He is generally perceived as an arrogant weirdo. His father is a failed writer with whom he enjoys going to the movies. Andrew copes with his social inadequacy by having high expectations about his future, as he believes he has the potential to become the next new jazz revelation. One day he is discovered by a conductor, Terence Fletcher, who invites him to join his band as the core drummer. The opportunity turns to be Andrew’s purgatory. No matter how hard he tries, he never satisfies Fletcher. Andrew's tempo is never quite right. In one scene, a lost and helpless Andrew stops playing and Fletcher’s response is severe: “Were you rushing or were you dragging? If you deliberately sabotage my band, I will gut you like a pig. Oh my dear God - are you one of those single tear people? You are a worthless pansy-ass who is now weeping and slobbering all over my drumset like a nine year old girl!”

After being pushed to dangerous limits, Andrew finally leaves the band and, persuaded by his father, he anonymously testifies against Fletcher who consequently loses his position. One night, he coincidentally encounters Fletcher in a jazz bar. Together they have a drink and Fletcher justifies his methods. He states that all his life he has made great efforts to discover a new jazz revelation without success. He gives the example of Charlie Parker, for whom humiliation at the beginning of his career helped him become "The Bird". For Fletcher “there are no two words in the English language more harmful than good job”. Before leaving the pub he invites Andrew to play for his band. Andrew accepts his invitation and leaves.

The night of the concert, an angry Fletcher tells Andrew that he knows about his allegations against him and leads the band in a piece for which Andrew does not have the sheet music in order to humiliate him in front of the audience. Andrew leaves the stage but soon after, to everyone’s surprise, returns and begins playing "Caravan". The rest of the band follows him and an angry Fletcher finally gives his approval and assists in conducting the band. Andrew finishes the performance with a perfect drum solo. Perhaps the birth of the new Bird!

Whiplash is also in part, the story of its young writer and director, Damien Chazelle, who after abandoning his interest in becoming a jazz drummer and having experienced an intense music teacher, decided to pursue a film career. J.K. Simmons’s wonderful performance
pulls the real life scenarios together in a style reminiscent of *Full Metal Jacket*’s Gunnery Sergeant Hartman.

Psychologically, Whiplash can be understood through the view of the Oedipus complex. Andrew tries so hard to get Fletcher’s approval that he ends up putting his own life at risk. Andrew’s castration anxiety pushes him towards the limits. No matter how hard he tries, he cannot beat the father.

Whiplash also raises an important question about teaching and learning. While positive reinforcement is the most recommended method for teaching, it is known that, struggling, despite painful, can also be very helpful. Historically, many people have achieved great things by overcoming huge obstacles in an adaptive way. In my personal life, overcoming big struggles at emotional, professional and academic settings has become my best teacher. The question is “Where’s the limit?” It is probably different for every person. While some people become depressed or suicidal, start cutting themselves or using drugs under minimal stressors, others overcome difficulties and become resilient. How can we predict what is good for whom? Factors that predict and promote resilience are actually a major interest in psychiatry, with still more speculations than conclusions. Like other great thought provoking films, Whiplash raises the questions but does not give you the answers. That night at the Beekman we left the theatre thrilled by the knowledge that we had just been witness a new masterpiece of the cinema.

Source of movies posters: IMD
Poetry

Blizzard In NYC

Everywhere I am
I cause disruption

Everywhere I go
I cause disturbance

Everytime I speak
I cause dissent

Everytime I think
I cause gravity

Everytime I move
I cause climate change

I am a blizzard of one

William Breitbart, M.D.

During the blizzard at the surroundings of Memorial Sloan Kettering.

Photo: Fernando Espi Forcen
Paella And Psychiatry (P&P)

Anticipating the future upcoming issue of The Journal of Humanistic Psychiatry that will have “Food” as a theme, a piece on this topic for our current issue “The Future” becomes pertinent and perhaps necessary.

Paella and Psychiatry (P&P) is a term that refers to the importance of the traditional Spanish dish within the mental health field.

Like in the field of psychiatry, the history of the Spanish dish is extensive and more recently has gained international importance. While many paella enthusiasts attempt to place the history of the paella in the Middle Ages or even earlier, the origins of paella are still uncertain. In general, scholars agree that “la paella” as we know it today originated at some point in time in the province of Valencia, Spain. Paella was originally the name of the wide pan that was used to cook the rice and the dish later took the name of the pan. Paella has traditionally been a dish of the people and its ingredients could vary depending on the season.

In order to preserve the authenticity of the original dish given its rise in popularity, in 2013 the regulatory committee for paella in Valencia, La Denominación de Origen Paella Valenciana, agreed that all paellas commercialized under the name “Paella Valenciana” must have the following ten ingredients: rice, rabbit, chicken, green beans (ferraura o judía verde), lima beans (garrofón), tomato, olive oil, water, salt and saffron (azafrán). Regional variations are also taken into account, therefore the following ingredients may also be added: duck, snail, artichoke, paprika (pimentón), garlic and rosemary. The best type of rice to use in paella is called arroz bomba, or “bomb rice”, from Calasparra, Murcia. It
is particularly good at absorbing the flavors of the broth due to its rounded shape. In times of financial crisis, food color has gained popularity over saffron.

Internationally, the most popular paella is not *paella valenciana* but *paella marinera* (seafood paella) which may be made with tuna, swordfish, cuttlefish (*sepia*), squid, clams, mussels, and various kinds of Spanish shrimp. Sometimes this paella can be made with lobster as well. The broth for this kind of paella can be made with *morralla* (a small fish), and at times seafood can be mixed with chicken which is called *paella mixta*. In other regions of the Mediterranean Sea such as Catalonia, Alicante, and Murcia, paella is seen as a Valencian dish. Even if made in a paella pan, the local rice dishes from other regions are simply referred to as *arroz* (rice). For instance, in Murcia, the dish *arroz con conejo* (rice with rabbit) is made essentially with rabbit, red pepper, tomato, paprika and thyme. On the coast near Cartagena, the popular fishermen’s rice dish is called *caldero*, with more broth than traditional paella and prepared with mullet fish, dried peppers (*ñora*), tomato, high garlic content and a very tasty broth made of *morralla*. An Alicante version of the dish is called *arroz a banda*. Other versions include *arroz negro* (black rice) cooked with squid ink and *arroz con costra* (rice with a crust) cooked with pork and topped with an egg crust typical in Elche. Finally, there is the famous *arroz con verduras* (rice with vegetables) of Murcia, which is made with salted cod fish and a great variety of vegetables that Murcia’s countryside has to offer.

Due to the popularity of the dish, restaurants in other areas of Spain including Madrid have more recently begun to offer paellas on their menus, likely with a touristic intention. In some Spanish restaurants in the United States, paella with chorizo can be seen. This is probably
influenced by the rice dish from Veracruz, Mexico which includes chorizo, chicken, shrimp and peas.

To prepare a good paella, one must first carefully fry all the ingredients in the paella pan in order to make a sofrito. After that, the water and the rice can be added, but some prefer to first lightly sauté the rice with the sofrito. In seafood paella it is better to remove the fish and then reintroduce it again at the end in order to prevent it from overcooking. Later the spices can be added. Finally, the flame can be increased to allow the socarrat to form, the bottom layer of rice which becomes fried and toasted.

The dish is usually made on Sundays for lunch, an occasion in which Spanish families gather together for the joy of their palates. In Spain, Sunday lunch is very ritualized. Before the paella, guests and members of the family enjoy some tapas, such as artichokes with anchovies, mussels in vinegar and bay leaves (mejillones en escabeche), chips, fried almonds in salt, recently sliced serrano ham, sliced chorizo and so on, always with wine and beer. After the appetizers, everyone sits around a big table while waiting for the chef to bring the paella. In Spain, couples don’t sit together, but on different sides of the table to maximize integration in the group.
the chef arrives with the pan, he is received with applauses from the guests who thank him for the great effort in making the paella for everyone. The chef begins by serving each member of the table starting with the guests, then continuing with the older people in the family and finally finishing with the younger people. No one is allowed to start eating until the chef finally sits and starts eating, but not before distributing some of the delicious socarrat. Meat paella can be accompanied with a red wine (e.g. tempranillo or monastrell), and for a fish paella it is better to open a bottle of white wine. After everyone has finished eating, a wide range of desserts and a café cortado or café solo can be served. For traditionalists a good sweet wine with dried fruits and nuts is the perfect dessert. Then comes the sobremesa, which is the time that people enjoy extended conversation. At that time, those who feel tired kindly apologize to go sleep a siesta. For the sobremesa, one can have another café with some liquor (carajillo or belmonte) or a gin tonic, cognac or other drink of preference. For smokers, a cigarette or a cigar is allowed at this time to accompany the drinks.

Paella has important psychiatric implications. After a good paella session, one usually finishes the day with a great level of satisfaction. Neurobiologically paella can certainly increase dopamine levels at the nucleus accumbens in the reward system of the brain. Paella enhances bonding and attachment by bringing couples, families and friends together. Paella brings love, all you need is paella.

Fernando Espi Forcen (Photos taken by the author)
Future Issues

- Spring Issue 2015: Food
- Summer Issue 2015: Shame and Guilt

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