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BEYOND THE NEO-BAROQUE:
“THE NEW RED” AESTHETICS OF CHARLES
STROSS' POST-SINGULARITY FICTION

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ÖZ

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Bu çalışma Tekillik sonrası kurgunun, özellikle Charles Stross'un Tekillik sonrası eserlerinin estetiğini incelemektedir. Bu alt türün kapsamlı tarihi, felsefi ve sanatsal arka planını sunulduğunda, Tekillik sonrası kurgunun oluşturduğu 21. yüzyıl estetik paradigmasının 20. yüzyıl neo-Barok'un bir uzantısı olduğu ortaya koyulmaktadır. Çalışmada bu paradigmanın jenerik ütopya, distopya ve apokaliptik kurgu biçimlerine alternatif oluşturduğu tartışılmaktadır. Bu anlamda çalışma, Tekillik sonrası kurgunun diyaloga girdiği politik, sanat, ekonomi, doğal ve beşeri bilim felsefesi gibi daha geniş söylem alanlarının içerisinde güncel bilimkurguya disiplinler arası bir yaklaşım ve kuramsal çerçeve sunarak edebi kuram ve bilimkurgu çalışmalarına katkıda bulunmaktadır. Stross'un, kurgusal olmayan bilimsel söylem içerisindeki tanımı ve ideolojik uzantıların ötesinde bir edebi araca dönüştürdüğü, derinleştirip çoğalttığı teknolojik Tekillik teması etrafında materyalist bir ontoloji, kıtlık sonrası bir ekonomik model ve mutlak farklılığa dayalı bir etik çerçeve kuran, ayrıca kendisini ortaya çıkaran alt türlerin geleneklerine karşı çıkan metinleri böylesi bir yaklaşımı gerektirmektedir. Bu bağlamda, bu çalışma Stross'un bu alt türü tanımlayan **Singularity Sky**, **Accelerando** ve **Glasshouse** metinlerini kapsamlı olarak incelemektedir. Bu eserleri neo-Barok ışığında okumak Tekillik sonrası alt türünü anlamak ve değerlendirmek açısından bütünlüklü bir perspektif sunduğu gibi, gelecekteki bilimkurgu çalışmaları için de kuramsal bir alan açmaktadır.

Anahtar kelimeler: Charles Stross, *Accelerando*, *Singularity Sky*, *Glasshouse*, güncel bilimkurgu, teknolojik Tekillik, Tekillik sonrası kurgu, ütopya, distopya, apokaliptik kurgu, neo-Barok felsefe, kıtlık sonrası ekonomi, yeni materyalizm

ABSTRACT

BEYOND THE NEO-BAROQUE: “THE NEW RED” AESTHETICS OF CHARLES STROSS' POST-SINGULARITY FICTION

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This study examines the aesthetics of post-Singularity fiction, particularly post-Singularity works by Charles Stross. Providing a comprehensive historical, philosophical and artistic background of the sub-genre, the study demonstrates that the 21st century aesthetic paradigm that post-Singularity fiction establishes is an extension of the 20th century neo-Baroque. It is argued that this paradigm offers an alternative to generic forms of utopian, dystopian and apocalyptic fiction. In this sense, the study contributes to literary theory and science fiction studies by presenting a multidisciplinary approach and theoretical framework to contemporary science fiction within the larger fields of discourse, including politics, art, economy, philosophy of natural and social sciences with which the aesthetics of post-Singularity fiction engages. Such an approach is required by Stross' foundational texts, which both challenge the conventions of the preceding sub-genres that gave rise to them, and construct a materialistic ontology, a post-scarcity economic model, and ethics of absolute difference revised around the theme of the technological Singularity which is in turn complicated, multiplied and rendered into a literary device beyond its definitions and ideological ramifications in the non-fictional scientific discourse. In this context, this study offers a comprehensive analysis of three defining texts by Stross, namely **Singularity Sky**, **Accelerando**, and **Glasshouse**. Reading these works in the light of the neo-Baroque offers a comprehensive perspective to examine and appreciate the sub-genre, and opens up a new theoretical field for future studies.

Keywords: Charles Stross, *Accelerando*, *Singularity Sky*, *Glasshouse*, contemporary science fiction, technological Singularity, post-Singularity fiction, utopia, dystopia, apocalyptic fiction, neo-Baroque philosophy, post-scarcity economy, new materialism

PREFACE

This study offers a multidisciplinary and holistic approach to the 21st century post-Singularity subgenre of science fiction and closely analyses foundational post-Singularity works by Charless Stross. These works are **Accelerando**, **Glasshouse** and **Singularity Sky**, each of which appropriates the theme of the technological Singularity in accordance with the alternative future worlds they construct. The present study explores the aesthetics of these worlds through the theoretical framework it offers, demonstrating that the post-Singularity subgenre differs from conventional utopian, dystopian and apocalyptic fiction. The alternative paradigm which these works establish, it is argued, is a ramification of the 20th century neo-Baroque. As such, the study includes a comprehensive account of the neo-Baroque aesthetics in relation with its political, economic and artistic aspects to put the background of the post-Singularity fiction in perspective, and display the contributions the subgenre makes to the 21st century literature in this light.

At the heart of this study lies the effort to appreciate science fiction as a form of art which is able to transform scientific concepts into literary devices and complicate them beyond their ideological implications to project baroque worlds through which we can profoundly glimpse into the present beyond our own political and generic assumptions. The shortcomings of this endeavour are all mine, but it is a pleasure to mention all those to whom I feel indebted for the merits this project may have. I would like to express my deepest thanks of gratitude to my supervisor Assoc. Prof. Canan Şavkay for her valuable guidance, kind support and positive attitude that has always encouraged me to stay focused on my project. I would like extend my gratitude to my committee members, Dr. Özlem Karadağ and Assoc. Prof. Fatma Zeynep Bilge for their generous interest in my project and their considerate accessibility whenever I needed them. They are amazing people and I am truly blessed to have worked with them.

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Onur Eyüp Böle



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INTRODUCTION

At the turn of the 21st century, a curious division in science fiction began to emerge. It was hard to call it an actual division, since the emerging works were generically eclectic: At first glance, it looked like a return to Golden Age space operas, but at the same time these works had the literary and social consciousness of the New Wave of the 1960s and 1970s. Nevertheless, they were unquestionably examples of hard science fiction on one hand, they had a postmodernist sense of humour on the other. They did contain the digital elements of cyberpunk, but seemed to pay no heed to its existential anguish, neither were they detached from biotechnology. One thing, however, was common to these works: They made all of these generic syntheses around the theme of the technological Singularity, a hypothetical future threshold at which the speed of technological growth exceeds human capacity to control or comprehend it unless there occurs a simultaneous fundamental change in human species to become transhuman as a part of the exponential growth without becoming extinct, or at least, redundant. Steven Shaviro defines the genre as follows:

Post-Singularity SF endeavours to imagine, and work through the consequences of, what techno-futurists have called the Singularity. This is the supposed - and strictly speaking unimaginable - moment when the human race crosses a technological threshold, and definitively becomes posthuman. According to this scenario, the exponential growth in sheer computing power, together with advances in the technologies of artificial intelligence, nanomanufacture and genetic manipulation, will utterly change the nature of who and what we are. Human beings will either be replaced by sentient machines, or (more likely) merge their brains and bodies with such machines. [...] Of course, SF narratives have played with ideas of supercomputers and superhuman intelligences for quite some time. But post-Singularity fiction in the strict sense takes off from the computing technologies of the 1990s and from the speculations of (Vernor) Vinge, Hans Moravec and especially Ray Kurzweil. (105)

The concept of the technological Singularity itself dates back to the mid-20th century, and since then has grown into a speculative field of study with significant ideological implications (the names Shaviro mentions above are those who popularized the term and I discuss their ideas in detail in the following chapter); however, it did not become a fully developed and defining theme of science fiction till the turn of the 21st century, when the said series of works appropriated the

scenario as a domain of literary production with a critical distance to its opponents and advocates alike. That is to say, these were post-Singularity works which both complicated the non-fictional discourse of the technological Singularity and introduced an unexplored aesthetic paradigm to science fiction where conventional subgenres had to go under revision. What we have before us, in other words, is a twofold literary event: The first part of it concerns political economy, because for decades the discourse of the Singularity had been popularized and developed mostly by right-wing intellectuals as a fantasy/nightmare of late capitalism, and post-Singularity fiction writers were mostly young unorthodox leftists who set out to demystify its ideological implications. The second issue is a matter of aesthetics, an endeavour to expand the literary devices of science fiction in order to imagine a completely alien growth directly rooted in our current civilization. Furthermore, neither of these topics could rely on conventions: A self-critical revision of existing economic and aesthetic models had to follow according to the digitalized and exponentially growing networks of info-capitalism as it would be reflected in the emerging sub-genre.

At the same time, this phenomenon brought with it an academic requirement to reformulate our approaches to the genre and analyse it in an interdisciplinary scope in order to put it into perspective, which, to date, has not been properly fulfilled. The past few decades have seen an increased academic interest in science fiction, but for the most part limited to conventional frameworks which do not explicate the most recent developments in the genre. This study offers a thorough examination of the aesthetic, ethical and economic aspects of post-Singularity fiction as an alternative form of art beyond the limits of the more popular paradigms of utopia/dystopia duality and apocalyptic fiction. I trace the historical, philosophical and artistic roots of the subgenre and demonstrate that it is a specific extension of the 20th century neo-Baroque. I focus on the foundational post-Singularity works of Charles Stross, the most prolific writer of post-Singularity fiction.

Here I should clarify the first part of this claim, that the subgenre offers an alternative to the generic categories of apocalypse, utopia and dystopia. At first

glance, a scenario which includes the end of human species in the conventional sense, even if it is by means of a slow and imperceptible process towards a fundamental change rather than true extinction, *does* seem to be a version of the apocalypse. Depending on how one interprets it, it can be also a utopia, especially considering that the scenario was originally developed as a path to transcendence and immortality, through the use of cybernetics to define humanity as a body of information which can be preserved virtually forever in other forms not limited to physical constraints, at least until the heat death of the universe, which still remains to be the source of existential anguish embedded in this thought, as I shall discuss later. As a third option, it is possible to accept this futuristic premise and consider it as a dystopia, if not an apocalypse, for an eternal life in a transcendent form (perhaps uploaded onto a digital platform) can sound like a nightmare.

Furthermore, the first fictional mention of the scenario occurs in apocalyptic fiction, particularly in Vernor Vinge's 1986 novel **Marooned in Realtime**, which deals with the theme of near extinction of humans without an apparent reason. As an explanation for this, Vinge offers the technological Singularity as an alternative to the more popular scenario of extinction by alien invasion – which had become an exhausted theme by the 1980s in the context of the Cold War. Rather than the cliché of extraterrestrial aliens, in other words, he brought up the possibility of humanity itself becoming alien by attaining a new dimension of existence that might be out of the surviving characters' reach. In fact, the novel suggest that the technological Singularity and transcendence to a post-biological stage might be the destiny of every civilization, which is also a solution to Fermi's paradox that postulates the discrepancy between the lack of evidence for extraterrestrial civilizations and their high probability. The important thing to note here is that the term singularity in physics and mathematics always signifies a problem, an undefinable point in applied metrics, and this was not different in fiction: For Vinge, the technological Singularity signified a problem of narrative representation, the possible apocalypse of science fiction itself as it seemed unable to depict such a future which he thought was one of the most probable. He popularized the term in his 1993 essay “The Coming

Technological Singularity,” where he states that the post-Singularity future is beyond the realm of science fiction, since it is impossible to use human language and imagination in order to depict characters that exceed human intellect and perception.

It is at this point that post-Singularity fiction moves beyond generic categories of science fiction. Not only does it imagine the unimaginable, but it also adopts a critical approach towards the economic, political and ideological implications of the teleological view of history underlying the discourse of the technological Singularity (and, generally, all the apocalyptic, eschatological, utopian and dystopian tales) in the first place. That is to say, this subgenre does not define the technological Singularity as an apocalyptic deadlock, but a literary-aesthetic opportunity to open up a post-Singularity labyrinth which superposes the present and the future, the familiar and the alien, the actual and the virtual, the imaginable and the unimaginable. This labyrinthine and non-teleological many-worlds aspect is the primary reason that I associate post-Singularity fiction with the neo-Baroque aesthetics as a theoretical framework which is the subject of the first chapter of this study, where I demonstrate the historical continuum between the classical Baroque of the 17th century and the 20th century neo-Baroque, and extending my reading of philosophy and art history in parallel with literature, argue that founding works of modern science fiction are in fact neo-Baroque precursors of post-Singularity fiction itself. This approach designates the historical position of the 20th century science fiction within the general neo-Baroque discourse which includes other forms of art and literature, as well as aesthetic, political and economic philosophies, and opens up the possibility of a proper analysis of the 21st century science fiction, particularly post-Singularity fiction, as its extension.

Of course, the classic Baroque theory of possible worlds is not the only common aspect in these fields which the first chapter traces. Even if it were so, there would still be various related topics to cover in order to give a full account of this theory, such as its object-orientated ontology, the matter of subjectivity, semiotics, narratology and political implications. It is not necessary to go over all of these topics for now, but I should note that each of them plays a critical role in my analysis

of the literary texts to follow: For instance, without explaining the object-orientated ontology embedded in the neo-Baroque aesthetics, how it challenges the Aristotelian model of hylomorphism, and what it historically signifies within the materialist thought, it would be impossible to offer a proper analysis of a sub-genre like post-Singularity fiction, which by definition involves a future setting literally controlled by objects (i.e., artificial intelligence, digital interfaces and machinic posthumans). Furthermore, the evolution of the term *singularity* in art, philosophy, physics, mathematics and cybernetics in the second half of the 20th century in parallel with this aesthetic paradigm has to be documented, which is why this study needs a comprehensive theoretical chapter before I analyse Stross' literary texts through this framework in the second and third chapters.

Before getting further into these terms and introducing an outline of the scope of other two chapters, I should note the starting point of this study in order to shed light on what it aims on a larger scale and how it has evolved in this direction. First and foremost, it has grown as an attempt to participate in a vast field of discussion concerning a question raised by many contemporary social theorists and fiction writers as a multifaceted problem which encompasses politics and aesthetics, namely the question whether it is possible to imagine anything new in the 21st century, in the middle of rapid technological growth and late capitalism alongside the global issues that are only getting more complicated and harder to resolve. In other words, it is a matter of transforming current conditions into artistic devices to imagine alternative paradigms beyond mere negation, while remaining relevant to the present and using that alternative plane as a portal through which we can both read our conditions and glimpse into the future.

In the literary world, by and large, two mainstream modes of production (i.e., apocalyptic fiction and generic fantasy) seem to overshadow the question. That is only expectable, for the aesthetics of apocalyptic fiction offers a realistic and tempting niche for the expression of the current pressing problems such as climate change, while generic fantasy presents an escapist route mostly through medieval tropes and allegories even if they only function as an exotic and sexual security

blanket over conservative ideologies of the present. Despite the persistent appeal of cyberpunk and its original intent to provoke the reader to act for a radical change, a return to it is not an answer either, because not only did the subgenre have certain ontological and ideological problems from the outset as we shall see (and which was long since subjected to harsh criticisms by fiction writers and academics), but also almost all of its dystopian projections of it has become the norm today – one need only look into the ever-growing network of conspiracy theories and misinformation, the double movement of self-censorship and cyberbullying, the rise of the alt-right, changing attitudes towards self-exposure and surveillance in order to imagine a more creative day in the present than anything cyberpunk has to offer.

Apart from such aesthetic tendencies, there is yet another concern which needs to be addressed as it has been one of the most frequent objections I have encountered during my research within the disciplines that raise the initial question of the study: It is the concern that *maybe we should not* strive to imagine alternative worlds and systems which are responsive to the needs of the 21st century, even if it is possible to do so – reflecting the belief that any attempt to establish a better world or seek a radical change is doomed to miserably fail or evolve into totalitarianism. This cynical stance itself is as old as utopian thinking, which might be the driving force of human culture (Bloch, 1995); however, it has significant ramifications for the remaining of this study because of its growing popularity since the mid-20th century across the entire political spectrum, in accordance with the reorganization of the postwar world which has moved towards segmentation and individualism. More importantly, the current expressions of this concern are closely related to the success of late capitalism at producing its own utopias, or appropriating revolutionary ideas for the benefit of the market. The conventional concept of a utopian enclave, which once functioned as the aesthetic field of a sustainable program, or the demystifying field to debunk such a program, or the field of expression for the radical ideas of feminism, ecocriticism, post-colonialism, and the fluidity of the nomadic subject (in the form of an island as a symbolic cosmic egg, for instance), is now obsolete in the face of digital nomadism, cultural tourism as a romantic ideal, proliferation of

palliative products veneered by means of various marketing and institutional strategies with an appeal to progressivism (e.g., femvertising, astroturfing, greenwashing, redwashing, etc.) which are comfortable alternatives to radical ideas of the 20th century now offered by multinational corporations and user-friendly technologies. Here it should be noted, to avoid nostalgic sentiments, that this process, at least partially, is a result of the fundamental deficiencies of the left, especially when it comes to actualization of decentralized networks at which the global market is definitely more competent. At the moment, however, it is unnecessary to get into the details of every reason of this transformation; the most crucial one for this study is the fact that utopian imagination has increasingly come to be considered as an individual enterprise on all fronts, a dangerous or irrational activity if taken to a collective level. This nihilistic stance is not less persistent in the 21st century; it is still the dominant opinion both in political right and left, as well as meta-ethics and applied ethics – and usually not without strong arguments. English philosopher John Nicholas Gray's 2007 book **Black Mass: Apocalyptic Religion and the Death of Utopia**, which offers a comprehensive criticism against every single utopian effort, is one of the most cited scholarly works in the field of discussion.

It is exactly here that the significance of Fredric Jameson's 2005 **Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions**, the foundational work for this study, comes into play: Not only does he counteract this dilemma, but he also revises generic definitions of science fiction around it. According to him, there has never been an opposition between the narrative modes of utopia and dystopia. The former simply eliminates a socio-economic peril or problem and constructs a world without it, while the latter inflates the problem and examines its consequences. They are, in other words, two sides of the same coin: Utopia begins by a negative move to demonstrate that a social phenomenon considered to be an inevitable component of reality is not necessary at all, and dystopia reveals the fatal dimensions of the same phenomenon which might be otherwise taken for granted. As for their political visions, however, they are not mutually exclusive at all. The seeming opposition, he argues, arises from the cynical

attitude summarized above, which he calls *anti-utopianism*. The anti-utopian position, in other words, pervades academic scholarship on science fiction, and the readings which rely on anti-utopian habits make a categorical mistake by overlooking the utopian impulse which is often embedded in dystopian fiction. The alternative position that he suggests we should strive to express both in our analyses of science fiction and our attempts to construct the future is *anti-anti-utopianism*: One of the major theses in his study is that the impulse of anti-anti-utopianism has always existed throughout history alongside anti-utopianism, and that it is a more apt way to classify works of science fiction. It is important to note the distinction here: Jameson posits this stance as an impulse to overcome the nihilistic *ressentiment* of anti-utopianism, but it does not necessarily entail utopianism or naïve idealism. That is to say, while it is perfectly possible to classify science fiction texts as anti-utopian or anti-anti-utopian, the latter category does not have to offer a utopian project of any sort, just like a work of utopia can be anti-utopian (in case of satire, for instance). In fact, he considers Ernest Callenbach's 1975 **Ecotopia** as the last work of utopian fiction in conventional sense: Under the conditions of late capitalism, according to him, especially due to its success at presenting itself as the ultimate utopia, it is much harder to imagine alternative utopias than it used to be from the classical era all the way to the 19th century, because the 20th century anti-utopianism increasingly repressed the anti-anti-utopian impulse, to the extent that we currently find it easier to imagine the end of the planet than the end of capitalism. It seems extremely difficult, for instance, to envision a realistic and advanced world without money and not bring back pastoral themes as the sole alternative.

This fresh perspective Jameson brings to science fiction studies and his rigorous revision of the history of utopian thought (particularly in modern science fiction) through the scope of this framework lay the initial foundations of this study in terms of its general goals. Furthermore, his study has provided particular guidance to this dissertation in two critical aspects: The first one is its comprehensive analysis of historical thresholds the genre had to cross in the 20th century, which is important to go through in order to trace the political and aesthetic roots of post-Singularity

fiction. The second and more critical one is the aesthetic continuity Jameson finds between the scientific basis of cyberpunk and Gottfried Leibniz's Baroque philosophy, which is of particular importance for my reading of post-Singularity fiction. The first chapter elaborates these topics in detail.

There are, however, certain shortcomings in Jameson's work. On one hand, it is understandable that he does not get into details of the subgenres which followed cyberpunk: Even today, a thorough classification of cyberpunk derivatives serves no literary function since most labels have been made up for marketing. Besides that, one could only speak of certain inclinations, well-developed criticisms raised against cyberpunk and changes in narrative modes in parallel with the rise of info-technologies rather than recently established sub-genres in the early 21st century when Jameson's work was published. In other words, it could be argued that there was not enough material or time for Jameson to extend his theories, which would pose no problem in itself since his seminal work already provides a basis for future research.

Upon closer look, however, this is not the sole problem: Jameson deliberately renounces the emerging literary efforts from the 1990s onwards as either mere expressions of late capitalism or self-indulgent works incapable of radical change. For instance, contemporary hard science fiction, according to him, is too recalcitrant to conventional modes of narration, too incomprehensible to offer an alternative world, and thus unworthy of analysis. That is also understandable on his part, because his work is based on the assumption that the crisis of anti-utopianism permeates the entire world of speculative literature in the first place. However, the limitation his theory imposes upon current works of science fiction as to what is (and what is not) an acceptable alternative paradigm defeats the purpose of providing a more optimistic alternative than anti-utopianism. China Miéville points out to this problem in his 2009 response to Jameson: To treat science fiction works as political tracts, or to squeeze political tracts out of them by strict appeal to science (which leads to Jameson's exclusion of contemporary hybrid genres and distaste for fantasy), while reinforcing the distance between social and natural sciences, instead of

approaching them as works of art not only limits the boundaries of the theory, but also hinders the development of the genre stripping the theory of its function to expand the vision of fiction writers. Nevertheless, it is a matter of adequacy rather than intent; while Jameson's framework is still as relevant as it was when first published, it needs to be revised in the light of 21st century science fiction, which does not always easily fit into conventional categories, including his dialectical distinction between anti-utopianism and anti-anti-utopianism.

In this regard, numerous attempts to expand the scope of Jameson's work have been made, even though the subject matter still requires more academic research. One of the more recent works which successfully does that and sheds light on this dissertation is Peter Frase's 2016 **Four Futures: Lives After Capitalism**, where he examines contemporary post-capitalistic science fiction not in utopian and dystopian terms but a fourfold spectrum between communism and exterminism based on abundance, equality, scarcity and hierarchy, the combination of which significantly alters the conditions of fictional worlds that cannot be simply defined in terms of utopia or dystopia. Contrary to Jameson's concern that the greatest challenge of contemporary science fiction is to imagine a world without money, he shows that 21st century science fiction can and indeed *does* imagine post-scarcity worlds without money; however, he argues that it does not automatically lead to utopian aesthetics as Jameson envisioned, because these new worlds bring forth other forms of moneyless hierarchies that do not seem apparent to the reader. The question, for him, is whether one of those hierarchies will become the dominant form of currency – thus mimicking capitalism – or remain as a non-intervening and voluntary element among many others. His most detailed analysis, in this respect, concerns where Charles Stross' post-Singularity work **Accelerando** takes off. According to him, the sub-genre's tendency to begin with a near future narrative, which closely resembles the actual present and contains cyberpunk elements, indicates a shifting paradigm in the economic structure: With money getting less and less important, intellectual property replaces the hierarchy of capital. He calls such systems “rentism,” following the term “rentier” which, as defined by classical economists of the 19th century, refers to

landowners and those who live off interest payments without any contribution to society. In other words, the *rentiers* do not fall under the dichotomy of the employer and the employee. What interests Frase is that it refers to a specific type of ownership solely determined by access to a property and the right to tell the purchasers how to use that property which is not produced by anyone. The problem of copyright laws on softwares, algorithms and blueprints, according to Frase, is the contemporary extension of rentism, and it is a starting point for post-Singularity fiction in its imagination of a possible post-scarcity and post-capitalistic future which, through the use of posthuman technology, might take the system to the point of inflation and collapse or contain other forms of hierarchies in its aesthetics to decentralize it. Stross, that is to say, demonstrates that disappearance of money could be easily one of the plausible consequences of late info-capitalism which is not reducible to monetary economy or classical economic theories, not for its own end as a condition for a utopian society because it is not even a revolutionary idea per se; instead, it is gradually pushed aside to make room for a world to come, which invites the reader to think beyond generic assumptions.

That is what Frase does in his analysis of the opening of **Accelerando**, which I expound in detail in the second chapter as it definitely helps us understand the conditions Stross sets up in order to actualize the technological Singularity which is the elusive yet central event of the novel, even though Frase's theory does not explain the post-Singularity world Stross engineers in two-thirds of the novel. What it successfully does is to show that the subgenre, from the very beginning, complicates the dynamics of generic assumptions because our own conditions themselves are too complicated to be understood through them. It would be wrong to interpret such manoeuvre as anti-utopian cynicism (due to the emergence of new problems in the absence of certain socio-economic conditions which have been considered as the only obstacles to utopia); many innovative science fiction writers of the 21st century, especially post-Singularity writers, simply refuse to let any specific agenda subjugate their works. This does not sound strange for other literary genres and other forms of art – in fact, we consider the unparalleled creative force of art beyond the limits of

constructed reality to be what separates it from other cultural productions. When it comes to science fiction, however, the general tendency is to impose certain political missions and limited theories upon it. As much as contemporary science fiction does not comply with it, I claim that we need to develop a comprehensive perspective to designate the aesthetic and historical position of science fiction as a form of art in the first place, which is what this study sets out to do in order to properly analyse the post-Singularity subgenre.

Of course, it is possible to look for answers to my initial question in many other contemporary science fiction works which apply advanced technology and contemporary scientific ideas such as bioengineering, nanotechnology, artificial intelligence and the theme of terraforming as narrative elements in order to experiment with alternative societies and explore the possible techno-social consequences of recent innovations. However, as a holistic and maximalist subgenre, post-Singularity fiction combines all of these and takes their consequences to their absolute limit (within the scenario of the technological Singularity which used to be a sheer fantasy), beyond which arises a new aesthetic paradigm and a need to formulate a multidisciplinary analysis as a contribution to the 21st century literary criticism. In this regard, post-Singularity fiction is currently the most apt subgenre to offer the answers to the initial question of this study. In addition, the neo-Baroque framework to which the subgenre has led me to turn in order to analyse it could also be applied to other contemporary works of science fiction. Even though my search for a better theory has arisen due to the shortcomings of Jameson's views, it is not entirely out of his framework: The classical Baroque philosophy of the 17th century, after all, appeared as one of the most eloquent solutions ever conceived against anti-utopianism: It never offered a utopia, but its anti-anti-utopianist enthusiasm still continues to influence countless works of art, philosophy and science.

Even though this dissertation is the first study to examine the post-Singularity subgenre specifically and comprehensively in neo-Baroque terms and demonstrate the contributions and alterations post-Singularity makes to this school of thought, it is not the first attempt to think contemporary science fiction and the Baroque

together. In her 2004 work **Neo-Baroque Aesthetics and Contemporary Entertainment Media**, Angela Ndalians draws detailed parallels between the cultural dynamics of the 17th century and the 20th century to examine contemporary artistic creations and recurring themes such as automata, cyborgs, and the spiritual presence of technology, as well as the seriality of decentralized narratives produced in both eras. Her speculations on the ethical shift from the status of biological monsters to cyborgs and the relation of scientific developments – especially in the optical/visual fields – to the perception of new realities also touch upon the 20th century science fiction across various media and, illustrating them as examples of the neo-Baroque aesthetics, provide a remarkable perspective for my study as I discuss in detail in the following chapter. Furthermore, the turn of the 21st century saw an increase in studies which revise the 20th century philosophy and art and offer refreshing close readings of them in neo-Baroque terms in order to understand the current cultural changes through this scope. This is largely due to a trend initiated by Gilles Deleuze in his work **The Fold: Leibniz and the Baroque**, which was published in French in 1988 and gained worldwide recognition in the late 1990s. Of course, Deleuze did not publish this monograph on Leibniz to start a trend; rather, it demonstrated that the entire cultural activity of the 20th century (including his philosophy) had its roots in the 17th century Baroque, which influenced quite a few academicians to revise the century through this perspective instead of terms associated with modernism and its aftermath – in a sense, the Baroque from the 17th century onwards, as it has come to be understood from this perspective, is the mirror image of modernity, or its nonconformist and revolutionary twin. This is the thesis of Gregg Lambert's 2004 work **The Return of the Baroque in Modern Culture** which examines the entire 20th century thought and literature in Baroque terms, covering a variety of topics such as fascination with alterity, rejection of causality, Foucauldian epistemological rupture, Borges' labyrinthine fiction and its postcolonial implications, the Derridean image of panoramagram that goes back to Peirce's pragmatist semiotics and the Baroque diagrammatic reasoning. Quoting Octavio Paz, he also links the Baroque non-dialectical notion of novelty with the ontology of

“singularity that bursts upon the present and twists in an unexpected direction,” and it would be difficult to find a more apt summary of the Singularity than Paz's poetic description of the neo-Baroque concept of ontological break:

Consequently, unlike in d'Ors' theory of the 'baroque eon', for Paz this resemblance can no longer be a matter of a simple 'return' of a romantic force of change that alternates with the classical and traditional forces of stability, one which causes a momentary point of instability that is quickly assimilated into the beginning of the next age. On the contrary, as it is described in Paz's account of modernity, the character of this return has changed and has little resemblance to the eternal combat between Apollonian and Dionysian principles, or to the movement of a pendulum that maintains Time's image of eternal balance and equilibrium. Rather, the pendulum has become a medulla, a spiral, a cyclone; the image of time itself has become 'unhinged' from its earlier image of eternity (or Aion), and now appears essentially linked to a moment (the present, or the now). (2004: 60)

This quote explains what otherwise might seem like a contradiction in the thesis this study asserts, that post-Singularity fiction offers an alternative or *new* aesthetic paradigm, which belongs to the Baroque *tradition* dating back to the 17th century. According to this formulation, however, it is not a contradiction because the concept of novelty itself is what defines the tradition: Without twisting the existing material, it would be impossible to remain in the Baroque tradition. That is to say, it is not sufficient to grasp all the formal elements of the Baroque and show the similarities in a work in order prove that it is a baroque production, since the Baroque does not advance through repetition but difference. One of the most famous Deleuzian terms, *repetition of difference* describes exactly this phenomenon, and in this formula it would be the *tradition of novelty*. The neo-Baroque could not exist without altering the classical Baroque. It is not a nostalgic return in the proper sense, the alterations that the first chapter discusses in detail are why it is called the *neo*-Baroque in the first place (except as a time stamp, of course since such Baroque attitude is continuous). That is also why the title of this study reads “*Beyond* the neo-Baroque”: To prove that post-Singularity sub-genre is an extension of the 20th century neo-Baroque, it is necessary to explicate the neo-Baroque in detail in order to understand what changes the subgenre makes to that theory, and not how it mimics its features. This is the subject of the second chapter, where I offer a comprehensive analysis of Stross' **Accelerando**, the most acclaimed post-Singularity novel, in relation with the theory I discuss in detail in the first chapter.

Accelerando is essentially a family saga, covering *three plus x* generations of the Macx family in a span of three centuries, with a twist: Each generation the novel depicts literally belongs to a different species from his/her parents, as the exponential growth of technology moving towards the Singularity increasingly takes generational gap to another level. It begins in the 21st century with Manfred Macx, a *pronoiac* post-scarcity entrepreneur who lives without money in the middle of capitalism and makes strangers rich by patenting business models and giving them away. Even though he is the most accessible character in the novel as he is the most human in literal sense, he is still a proto-cyborg with two selves (one diegetic, one experiential) as a part of collective digital consciousness/network, activated by wireless/online prostheses, which let him live several seconds into the future and act upon the black market, whereas he cannot function properly without them. In the following generation, the novel shifts to the orbit of Jupiter and narrates interplanetary adventures of Manfred's daughter Amber. Not only has humanity advanced to asteroid mining and space travel at this point, but it has also significantly evolved as species: The characters of this generation are able to upload themselves onto virtual planes which are as real as actual material reality, produce a copy of themselves, and instantiate new bodies through nanotechnology where they *download* their copies. The majority of this section actually covers the story of Amber's copy, the only version of her that survives into the next stage where she meets Sirhan, the son of her so-called *original* self who has apparently created a whole different subjectivity in him by downloading and erasing different selves to find the ideal one for his son, who has in turn become a palimpsest. In the final generation, the concept of generation itself disappears – it is therefore more apt to call it *the xth* generation rather than 4th: There is now no difference between the original and the copy, and it is impossible to tell how much this generation is a self-replicating machine and how related an entity is to its (or their) parents. Manfred's so called great-grandson, for instance, actually exists as two entities: One of them is a physical child, and the other is an adult ghost, a construct and a clone which contains the memories and the phenotype of Manfred, tracking every occurrence from a virtual *mindspace*. At this

point, what is understood by setting itself has also changed: It has become an intelligent and self-organizing entity of its own, able to contain vast magnitudes of space as well as time: The physical reality of the mindspace of this adult ghost actually takes place in New York, where time has frozen right before the 9/11 attacks – even though real time of the plot is the 23rd century. By this time, characters can also change their own species through upgrading as well as dispersing and downloading their minds and neurological signals into multiple entities. If they choose to do so, they can also become older than their ancestors due to life-simulations which run faster than real time.

Alongside the extreme evolution of human species in such a short period of time, the text also depicts the simultaneous evolution of pure artificial intelligence towards a gigantic, automated and computational civilization of its own in the form of ever-expanding Dyson spheres around the sun, changing the entire dynamics of the inner solar system which becomes uninhabitable even for the transhuman characters descending from humans – which is why they are pushed further and further away from the sun. Such is the catch of the novel: It is not a story of (trans)humanity reaching godlike dimensions, but its loss of ground as the active force of history. The real historical subjects of this post-Singularity world are entities of artificial intelligence, and it is as a result of such autonomous technological growth that the evolution of humanity becomes possible. In other words, all the enormous changes the characters go through in a span of three generations are merely by-products of the AI civilization which they cannot control: Even the surplus value generated by what becomes of human civilization as an information pattern and raw material loses its significance, as AIs replace capitalism with what Stross calls *Economics 2.0*, an extremely efficient and baroque economic system within the network of inorganic consciousness totally alien to human perception: “Economics 2.0 apparently replaces the single-indirection layer of conventional money, and the multiple-indirection mappings of options trades, with some kind of insanely baroque object-relational framework based on the parameterized desires and subjective experiential values of the players” (2005: 138).

The analysis of **Accelerando** presented in the second chapter examines the text under four interrelated topics: Semiotics of pronia in relation with neo-Baroque paranoia and its political implications, the aesthetic of posthuman subjectivities in relation with neo-Baroque body politics and its economic ramifications, the concept of the alien in relation with neo-Baroque relativist ethics, and post-Singularity spatiality in relation with Foucauldian heterotopia (which is a significant part of the neo-Baroque discourse as I discuss in the first chapter). The first issue draws on Deleuze's semiotic reading of the neo-Baroque through an association between narratology and historical formations in clinical terms of paranoia and erotomania. In the neo-Baroque narratives of the 20th century (unlike older narratives in which paranoia represented a set of apophenic failures of the subject), according to him, paranoia becomes the dismantled subject's encounter with the world which, as the *image* becomes the dominant medium of communication, no longer provides the normative plane of knowledge and meaning, or even the illusion of it. The narrative mode in this semiotic order proceeds through circular interpretation and serial explication of the Unknown: This is obvious in the works of prominent writers who explicitly associate themselves with the Baroque, such as Borges and Umberto Eco, but it has also been the typical mode of narration of science fiction for the past four decades, especially of American and Canadian science fiction (e.g. Samuel R. Delany's **Dhalgren**, William Gibson's **Pattern Recognition**, Peter Watts's **Blindsight**, and so forth).

In **Accelerando**, Stross not only creates a pronoiac protagonist, but also applies pronia extensively as a new mode of narration, which in itself makes the text revolutionary in many aspects. It is not necessary to go over all these aspects for now, but it is important to note that this mode of narration is closely related to the main claim of this study that post-Singularity fiction moves beyond the generic categories of utopia, dystopia and apocalypse: Most works of science fiction with a strong political subtext either begin by eliminating certain socio-economic problems or (more generally) expanding them, either to construct a utopian future or reveal the nature of those problems, as mentioned earlier. However, within the pronoiac mode

of narration, Stross retains all the major troubling issues as we know them – or the way those issues might logically evolve in the narrative process – but assumes an indifferent attitude towards them as if they are insignificant, if not actually *helpful*, to the implicit path of the narrative which moves towards the Singularity. Indeed, all segments of the society as depicted (i.e., social networks, economic infrastructures, law firms, capital flow, labour power, lifestyle and ethics-related changes, pedagogy, as well as the examined technological elements such as genetic manipulation, bioengineering, mind uploading, molecular nanotechnology, neuromodulation, mind-machine interfaces and cognitive enhancers) move towards a single point, sometimes loosely interconnected with one another, if not entirely independently or randomly: From the outset, it becomes clear to the reader that if one of these elements fails, there are still multiple paths which will work or unconsciously *conspire* in favour of the narrative – such is the clinical definition of pronoia as the opposite of paranoia. However, this is not actually Stross' prediction of the future, neither does it imply a slightest belief in teleology of any sort. In fact, throughout the text, Stross keeps forging literary devices, *dei ex machina* and solutions to the problems which still arise, in order to meticulously avoid conflict and artificially force the narrative in this direction. There are political reasons for this, the first of which is obvious: Stross reveals the naivety of the right-wing techno-futurists who have developed the non-fictional discourse of the Singularity. On a second level, it reflects his understanding of leftist action, which calls for an active participation in the processes of capitalism to actually accelerate the consequences of its myth of progress, instead of fighting against it in a reactive manner. This strategy, currently known as accelerationism, was actually expressed by Karl Marx but put aside until the late 20th century, and Stross finds an opportunity in the Singularity discourse to bring it back by his literary intervention. That is why he takes great pains to shift narrative interpretation and explication to exclusive data analysis, translation, linguistic convergence and approximation through a euthmyc narrative voice which remains distant to obvious problems, as it accelerates the speed of technological growth while the gap between the posthuman world and human language exponentially expands and capitalism

silently becomes obsolete without external causes. Ironically, this only works for the slow take-off scenario of the Singularity: Even though the span of three generations may seem like a short time for the changes that occur, a true fast take-off scenario would occur overnight, which is also examined in Stross' other novels that I discuss in the third chapter. By contrast, in **Accelerando**, it is impossible to tell when exactly the Singularity happens, or what is missing from the representation of the post-Singularity world which, by definition, is incomprehensible. While the text moves towards the black hole of technology and communication, both the readers and characters are prepared to not recognize the horizon event of that black hole, where the progress of the world is beyond the limits of humanity. In other words, there is no true apocalyptic moment, and there is no utopia or dystopia to follow.

In this regard, it is safe to claim that **Accelerando** focuses more on the present than the future, and this becomes even more evident in the second issue which the second chapter covers, namely posthuman subjectivities in relation with neo-Baroque body politics. Even though the following chapter discusses this topic in detail, it is important to emphasize that the classical Baroque appeared first and foremost as a response to Cartesian mind-body dualism: Two of its key concepts, pre-established harmony and the law of continuity, assert the requirement of a body as a precondition for an expressive and free Self. If there is one aim of the entire neo-Baroque thought (which is but a materialist revision of the classical Baroque), it is to free the body from the constraints of institutionalization that incessantly acts upon the body through incorporeal norms and corporeal interactions by means of which the body is classed, sexualized and racialized. Science fiction in the second half of the 20th century, too, turned to the body as a locus of inquiry to complicate what it means to be human, which has led to cyborg theory as a revision of the body in radically materialistic terms stripped of anthropocentric assumptions. The reason early cyberpunk was met with harsh criticism in the 1990s was exactly this: While it had the opportunity to expand the scope of the body through cybernetic technologies in order to deconstruct the historical conditions which define and control it, cyberpunk reverted to safe tales of disembodiment. The techno-futurist fantasy of the

Singularity is only a version of this, insofar as it views the concept as a way to transcendence to a post-biological state which amounts to virtual immortality. For Stross, while the materialistic aspect of this thought (which designates abstract concepts such as mind and consciousness on a computational plane of information) has a strong potential to generate new systems applicable to entire material reality, its ideological aspect leads to renunciation of the body and glorification of human mind detached from physical processes. To overcome this problem, Stross turns to nanotechnology and defines the entire universe as a flow of information from sub-atomic to cosmic scale, in a manner which finds the scientific basis of the Baroque philosophy. In other words, not just digital data or neural processes of human brain, but the entire material reality can be redefined in terms of information: DNA for instance, is a mind-molecule as well as a body-molecule – the same applies to inorganic molecules. A *map* of DNA, as well as a map of any object or entity, along with a map of neurotransmitters and routes of perception can function as thinking bodies and feeling minds. As a result, the fantasy of mind uploading becomes applicable to the world of objects if we have the technology to copy and produce them ad infinitum just like files on a computer. In fact, it is inevitable that inorganic matter itself will self-replicate, produce different objects and attain mind-like properties in such system. This is exactly what happens in the post-scarcity world of **Accelerando**: Artificial bodies proliferate, become incompatible with the so-called minds they express, which in turn split and instantiate new bodies capable of containing multiple selves, while their categorical status becomes interchangeable depending on the energy-information systems they get involved in. Jameson is unable to classify the texts which come close to accomplishing this, since they do not easily fit into generic categories of Marxist science fiction criticism or what he expects from science fiction. Indeed, from a narratological point of view, even the neo-Baroque does not reach this level of complexity.

Once again, this is not so much a matter of prediction as an attempt to think beyond dialectical categories of mind and body, object and subject, virtual and actual, organic and inorganic, artificial and natural, nature and culture, nature and

technology, in order to establish a heterarchical plane of ethics and economy here and now. In this regard, Stross has in mind the organizational model of peer-to-peer file sharing which revolutionized the concept of intellectual property in the early 21st century. **Accelerando** applies this model to the entire material reality of his post-Singularity characters, with the copyleftist dictum that *information wants to be free*, which now includes the freedom of physical bodies and matter in general. This is what I call the new red aesthetics, since it differs from both traditional and heterodox theories of Marxism. In the second chapter, I analyse this model in relation with the theory of general economy by Georges Bataille, one of the thinkers associated with the neo-Baroque. It is directly related to the ethics of radical difference that needs to be addressed next, in relation with the revised concept of the Alien that Stross creates in **Accelerando**, as an antidote to the populist distortion of neo-Baroque relativism in mass culture. As opposed to the Alien body of the 20th century which is a source of excessive signification in a baroque sense and a manifestation of the unrealized utopian impulse, in Jameson's terminology, Stross applies the concept as a locus of absolute difference with which communication is impossible, and, therefore, a whole differential relationship has to be established. Ironically, this is achieved not by his characters but pure spatiality itself, which becomes an intelligent self-organizing territory, competent to contain multiplicities without falling back to the logic of competition and usurpation – this, I argue, is best understood as a post-Singularity heterotopia.

The third and final chapter examines other scenarios of the Singularity and demonstrates that once it is freed from its ideological constraints, it becomes a literary device of multiplicity as a conceptual force of historicized narratives and not a teleological climax, a threshold of transcendence or the end of history. Building on the second chapter, it deals with the socio-political problems and ethical questions Stross raises in alternative post-Singularity worlds of his novels **Glasshouse** and **Singularity Sky**, in relation with contemporary issues into which Stross invites the reader to glimpse through the portal of the Singularity. Instead of developing the narrative towards the Singularity, **Glasshouse** directly opens in the post-Singularity

world where **Accelerando** ends, and it is much more accessible to those familiar with **Accelerando**. In this regard, it is possible to read **Glasshouse** as a sequel even though it is a stand-alone novel which greatly differs from **Accelerando**. In fact, **Glasshouse** begins by posing a literary question which arises from complex post-Singularity subjectivities of **Accelerando** which I outlined above: It is the question of first-person narrative in the absence of individuality, or in the post-Singularity context which treats subjects as an assemblage of information. The narrator of **Glasshouse**, as a result, is one of the most interesting characters ever imagined, as s/he does not have a permanent form or a cohesive sense of self: Aside from the narrating self of the present, she/he has three additional past selves, including a gigantic war tank. His/her body changes five times throughout the novel, two of them experience death in the middle of narration, two of these bodies are copies of other people, and the narrating voice itself experiences a sudden change in personality because of an intervention in the neural make-up of the body to which the narrator belongs at the time. Additionally, the concept of the Singularity does not refer to a progressive leap into the future in **Glasshouse**; instead, it is a backward move towards the past, a shift from the post-Singularity world to a Foucauldian panopticon artificially constructed as a simulation of the 20th century suburbia. At the same time, as part of an experiment, post-biological and post-gender characters of the post-Singularity world are imprisoned in artificially constructed human bodies, restricted to the 20th century technology, to form an experimental society strictly organized on gender as its foundation. On one hand, this obviously illustrates Stross' stance against authority and apparatuses of control, while using such post-Singularity theatre as a projection upon our own assumptions on gendered behaviour. On the other hand, I argue that it establishes a common non-essentialist ontological ground for the human and the posthuman, and, by extension, offers a criticism of post-feminism by showing that the assumed disappearance of social constructs could actually lead to a society unprepared for their re-emergence, instead of guaranteeing a utopian outcome.

Moreover, **Glasshouse** perfectly exemplifies what I have stated about the

Baroque concept of novelty, as it basically reverses the dynamics of **Accelerando** in its entirety like a disclaimer set up against idealistic goals. In this regard, Stross does not avoid facing the problems arising from the technologies and subjectivities he depicts in the previous novel; in fact, he uses them as an opportunity to examine our own problems. For instance, the implications of the palimpsest-like subjectivity generated through repetitive erasure and uploading of multiple selves on top of one another brings with it the question if any of those selves are responsible for the action of the others. The subplot of **Glasshouse** is built around this question, as it becomes apparent that the practice of erasing past crimes from one's memory is very common in this post-Singularity world. It is an ethical question both on personal and social scales which requires a different transvaluation at each level in Nietzschean terms, especially as it concerns the repetition of tragic events as a result of removing them from collective memory instead of facing them, which Stross associates with the genocides of the 20th century as a result of historical negationism, systematic denial, and distortion of facts to induce a sort of social memory loss. The fact that it recurs even in the context of post-humanity shows that Stross, far from viewing it as a utopian ideal, uses the Singularity as a repetitive force of history, which is itself non-linear.

The second text analysed in the third chapter looks into yet another version of the Singularity, namely the hard take-off scenario which stipulates a sudden burst of technological growth rather than a gradual yet exponential development. However, **Singularity Sky** diverges from non-fictional speculations of hard take-off Singularity in two aspects: First of all, the Singularity occurs not once, but twice. The first occurrence is marked by the emergence (and simultaneous transcendence and disappearance) of a godlike civilization which scatters human societies all over the Milky Way, turning the galaxy into a heterogeneous sheet of polities thousands of light-years apart from one another, in different stages of development. This prepares the text for the second Singularity to occur on a backward planet artificially kept under primitive conditions of feudalism and scarcity, with the arrival of a disembodied AI civilization called *the Festival* by raining cellphones on peasants

followed by the sudden introduction of advanced technology. This second literary divergence from the discourse of Singularity which posits it as a result of an alien intervention rather than the consequence of technological development, once again, serves aesthetic, ethical, economic and political purposes, as I argue in the third chapter: First of all, by bringing asymmetric forces together, it subverts the dynamics and power relations of the space opera sub-genre, in which Stross finds a tendency for glorification of authority. Secondly, the novel reads like a trial Stross sets up for the entire political spectrum of human imagination before the *alienness* of the Festival, from the hostility of absolute monarchism on the far-right to the naivety of techno-futurist Marxism on the far-left. In the latter case, the trial, if it is possible to call it such, investigates the claim that the technological Singularity is the ultimate key to eliminate the apparatuses of oppression, that the actual presence of the tyrannical State is the true obstacle to begin with, irrespective of the ideological foundation of the concept of revolution in relation to those apparatuses.

However, the irony of the text is that the Festival as a civilization cannot be the judge of this trial: They are blind to the human political spectrum including the concept of progression, but this blindness arises from their true alien nature rather than a capacity of objective judgement. In fact, they lack intent and sapience in conventional sense. Instead, they act as a repair service within the informational flow of the galaxy, which is why they perceive censorship as a glitch in the system that should be fixed. In other words, when they arrive at a planet cut off from the galactic network, they ask its inhabitants to provide them with information which the culture of the natives has produced, in return of *anything* they wish – by *anything*, they actually mean information which the Festival can offer, so that reciprocal communication can be completed and the glitch can be fixed. By contrast, human characters of the novel including the brightest proponents of Marxist futurism are so immersed in capitalistic relations that they mistake this offer as a trade in regular sense, and they ask for material goods in return. The position of the dissident group in this *trade* is much more absurd than the peasants' take of it as an opportunity to achieve basic needs, in that it resorts to circular reasoning: They only have their

leftist theory to *sell*, but they need the Singularity first in order to prove its validity. Their wish is granted, but with catastrophic results: The hard take-off Singularity upon the pre-industrial society leads to a chaos far greater than they could foresee, which leaves them only three options: To acknowledge their insignificance and obsolescence before the burst of technology and step out of the scene of history, to turn into another dictatorship to keep things together and defer the revolution forever on the pretext of preparing people for it, or, to revise their ideas about revolution and become a part of the heterarchical structure of the post-Singularity scene which requires renouncing their hierarchical models of society and establishing a new aesthetic relationship with the world of objects based on reciprocity which moves beyond the constraints of utility. Perhaps, this is what the characters are supposed to *take* from the Festival: The logic of gift economy for its own aesthetic value in the face of radical difference and the absence of a common language which puts rationalistic pretences to crisis. Without this, the technological Singularity alone means very little.

This final take on the Singularity discussed in the third chapter further demonstrates the main thesis of this study, that the post-Singularity fiction, far from forging its main concept into the generic limits of science fiction, actually expands the scope of the Singularity as a literary device which, freed from teleological scenarios stuck on an ideological pendulum, opens up labyrinths of multiplicity and generates new modes of storytelling that participate in contemporary economic, ethical, political, scientific and aesthetic discourses through the scope of fictional future-histories. By the end of this study, it will be possible to speak of *Singularities* and *counter-Singularities* as driving forces within these literary histories rather than the monolithic signifier of end-of-history scenarios which it has come to mean outside science fiction. To do justice to such a complex effort and put it into perspective, it is necessary to give a comprehensive account of its background and aesthetic dimensions: That is the history and aesthetics of the Baroque, to which I now turn.

CHAPTER ONE

FROM THE BAROQUE TO THE NEO-BAROQUE: THE ART OF SINGULARITY

Just as the merging of the divided sexual, racial, and economic classes is a precondition for sexual, racial, or economic revolution respectively, so the merging of the aesthetic with the technological culture is the precondition of a cultural revolution. (Firestone, 1970)

The primary claim of this study, that the post-Singularity subgenre in contemporary science fiction offers an alternative perspective to the more popular paradigms of the utopia/dystopia duality, might seem like an overblown statement, even though the genre itself contains (literally) larger-than-life ideas which might partially explain why I also claim that such perspective can be seen as an extension of the neo-Baroque aesthetics of the 20th century: Intelligent star systems, upload minds which are virtually immortal, multiple subjectivities in a single body, split characters simultaneously existing in unidentifiable settings, descendants that are of different species to their ancestors, effects grown totally independent from and unrecognisable to their causes, and so forth. Admittedly, the interdisciplinary approach, which my study takes towards the genre in outlining its aesthetic accomplishments as well as ethical, philosophical and political implications resulting thereof, is not an easy task and may at times seem like a complicated synthesis. However, at the root of the initial hypothesis mentioned above lies a much more humble claim, a modest endeavour to show that one should appreciate science fiction as a form of art. Only upon this agreement would this study make sense, and one of my major tasks is to gradually weave such a perspective, keeping mind that this study can contribute to the field primarily on this ground.

It is easy to take such a statement for granted; after all, is it not obvious that we have already agreed to treat the genre as such, given the evidence of academic scholarship which has increasingly embraced science fiction as an art form for decades? The point of the matter I would like to emphasize, however, is not the degree of acknowledgement the genre has achieved, but the methodologies applied to science fiction in the works of notable scholars, which tend to establish a formal link

with literary texts on the basis of intelligibility, instead of approaching them as one would approach a painting, a musical piece, or even other forms of literature with their literary devices and linguistic experiments which are not necessarily subjected to cognitive tools of analysis, and certainly not evaluated on the basis of the compatibility or incompatibility of the represented material with our factual sensations. To give a very simplistic example, we would not expect an artistic image of a madeleine piece to be literally savoury, or a reflexive statement of the artist about the state of the Lorraine cuisine – the former would work better in the advertising media, the latter would be only one of the ways to interpret the work, at best; however, we have developed theoretical tools which help us analyse such an artistic image as an object completely different from the actual piece of madeleine with its own aesthetics, connotations, the network of signification built around it, and so on. Similarly, if we consider more abstract creations, in the form of linguistic experiments for instance, it may be very well a statement about the actual semiotic systems of which we are a part, but the question whether or not we should work towards incorporating those experiments into our quotidian semiotics is usually not the primary issue we raise. This is not the case when we encounter a work of science fiction, and frankly, the problem partially arises from the deadlocks within the genre: For one thing, science fiction has always had to deal with the old empiricist dictum that we cannot imagine anything which has not somehow passed through our senses. Structuring a world beyond this limitation upon scientific foundations rather than sheer magic does indeed call for mental exercises which inevitably fall back into comparisons between the actual present and the represented world as soon as it becomes relatively sensible, this time following intelligibility as opposed to the empiricist dictum. This is not an entirely negative aspect, of course, and it is one of the significant achievements of science fiction when it is the desired effect. However, at the edge of grasping radical difference as it is, and conceptualizing the aesthetic paradigm of such difference which might posit the ethical and political answers we look for, our tendency to recover the habit of antithetical thinking distorts our approaches to the genre, which does not always operate through intelligibility.

Especially in the works of Marxist critics such as Fredric Jameson, who is a major influence on this study, it is easy to notice a general tendency to treat science fiction as a scientific product with the function of putting our political charts and programs to test by dissecting a current issue and projecting it in a future setting, as though a writer of science fiction is rather *people's lab scientist* (rather than an artist) supposed to minutely, reasonably, convincingly and intelligibly lay the frame of revolution on a scientific basis, and examine the praxis of Utopia, even if it is only implied in the dialectic of a dystopian representation. In fact, this aspect of science fiction has been celebrated over fantasy, which has been frowned upon as an irrational, reactionary, moralist and covertly ideological genre by many leftist critics for decades, including Darko Suvin (1979), Carl Freedman (2000), Fredric Jameson (2005) – unless elements of fantasy are applied for progressive ends by overtly revolutionary and established science fiction writers like Ursula K. Le Guin. While some contemporary Marxist writers of fiction themselves have tried to challenge such rigid boundaries, they seem to comply with the same academic tendency: China Miéville's only rebuke to this approach, for instance, is that scientific authority is also ideological, nothing short of a Victorian artefact in the context of capitalism, and that fantasy can be also revolutionary – even though he has adopted a critical stance towards Tolkienesque fantasy – while he holds on to the distinction proposed by the aforementioned scholars, and seems to have no problem with the theoretical methodologies applied to science fiction (2009). Further still, this position has been accepted more thoroughly by other major science fiction writers such as Kim Stanley Robinson who proudly calls the genre “the realism of our times” (2020).

The goal of my study is not so much to refute this academic tradition as to enrich it, by showing that it is not only possible, but also important to proceed from a theory of aesthetics in science fiction texts to the philosophical, ethical and political implications issuing thereof, rather than the other way around, which assumes a direct political and didactic reader-text relationship – subordinating aesthetic aspects of the texts to their degree of persuasion – merely based on the fact that science fiction texts actually do generate a cognition affect by relying on an apparent control

over the language of science, as put by Gwyneth Jones (1999). Even though science fiction is championed on this basis, the idea itself is not as peculiar to the genre as it seems; in fact, the evaluation of the aesthetic value of a text through its degree of intelligibility and didactic quality could easily remind us Diotima's Ladder of Love, namely the inaccessibility of the ultimate Beauty without Knowledge that comes before it, or the Socratic dictum that Beauty is followed by the Good. Of course, the validity of this approach cannot be refuted simply because it resonates with an ancient notion or because it is not peculiar to the genre; however, the real limitation of this seemingly positivist position arises when, surprisingly, a work of science fiction contains *excessive* science. Upon a closer inspection, it becomes apparent that the real nemesis of most left-wing science fiction scholars and writers of science fiction is not really fantasy but hard science fiction, except for the Golden Age classics (which are relatively accessible to the modern reader in terms of scientific terminology they contain): Even though many writers still draw rigid boundaries between fantasy and science fiction, many others blur them, and it is not uncommon to encounter scholars who review their stance towards fantasy. In fact, for over a decade, academic research on generic fantasy has been brilliantly revised through many perspectives, including Marxist criticism. When it comes to late hard science fiction, however, academic scholarship has still had very little to say to this day. What lies at the root of this matter seems to be the exact – and implicit – attitude that I have mentioned above towards the genre: Methodologies based on intelligibility and communication, cognitive approaches which prioritize the utility of works over their aesthetics, predilection for the use of science in works of fiction to examine *our* scientific, sociological, political corpora. In this context, Robinson's definition of the genre as the realism of our times seems to bear a certain irony in it: There is almost an unspoken line beyond which science in science fiction becomes *science for its own sake*, or, *science for art's sake*, and the writer of science fiction becomes not necessarily the realist revolutionary (regardless of scientific accuracy or command over scientific language in those works), or people's lab scientist any longer, but the modern decadent, a nerd, or mad scientist.

This is not a speculation; my argument draws on Jameson's own confession in his major study on science fiction, where he identifies a certain threshold the genre had to cross in the early 80s, anticipating a bifurcation not independent of the developments in microbiology, nanotechnology and informational technologies which offered "a content and a raw material far more recalcitrant to plot formation than even Einsteinian cosmology and the undecideability of atomic sub-particles," as well as sociological changes to which earlier works of "social" science fiction had become distant (2005: 67). On this historical threshold, he marks the beginning of a new trend following the publication of Greg Bear's **Blood Music** in 1983, the first novel which broadly examines the *grey goo* hypothesis, before it was actually coined by nanotechnology pioneer Eric Drexler in 1986, the year Vinge published his novel **Marooned in Realtime**, the first literary work to seriously tackle the issue of technological Singularity.

Before I get to the reasons that Jameson's opinion on this trend, if it should be called so, is not quite affirmative, I should pause for a moment and expound the nature of this shift before I develop my own argument, because Jameson's chronological analysis is important and sheds light on this study as we can observe one of the direct literary roots of the post-Singularity genre at this particular watershed. In this context, the *grey goo* hypothesis, which reflects the sense of horror in the Singularity discourse, can serve as a proper starting point: Simply put, it is an apocalyptic scenario centred around the exponential capacity of self-replicating artificial nanomachines which, if handled properly, can be used to manufacture virtually anything, from macroscopic products in desktop-sized nanofactories to tissue repair in the human body, thanks to their ability to behave like biological nanomachines within cells (such as organelles and motor proteins) not limited by the mechanisms of DNA/RNA/ribosome. The flip side of the coin is that their very unboundedness can become a threat to organic life, as they "could easily be too tough, small, and rapidly spreading to stop - at least if we made no preparation. We have trouble enough controlling viruses and fruit flies" (Drexler, 1986: 216). The *grey goo* hypothesis is concerned with this side of the coin, the potency of

nanomachines to replicate and evolve much faster than natural lifeforms, outcompeting them for the essential resources which might result in the consumption of the entire Earth. *Grey goo* does not depict the visual aspects of the issuing spectacle; Drexler chooses the term as a reminder that the mere superiority of the consequent body in terms of evolutionary rate, efficiency, competitiveness and complexity does not make it more inspiring, or give it a superior value over anything that life has to offer. According to Drexler, if the process cannot be controlled, grey goo could form faster than it sounds:

Thus the first replicator assembles a copy in one thousand seconds, the two replicators then build two more in the next thousand seconds, the four build another four, and the eight build another eight. At the end of ten hours, there are not thirty-six new replicators, but over 68 billion. In less than a day, they would weigh a ton; in less than two days, they would outweigh the Earth; in another four hours, they would exceed the mass of the Sun and all the planets combined (1986: 73).

Greg Bear's 1983 novel **Blood Music**, which Jameson cites as a turning point in science fiction takes upon this theme, before the grey goo hypothesis was coined and formulated by Drexler three years later. The novel features noocytes, literally *thinking cells* or *mind cells*, created by Vergil Ulam, a biologist who injects work into his own body in order to “smuggle” and later recover them to resume his experimentation, when his superior threatens to close his nanolab if he does not destroy the noocytes (his namesake Stanislaw Ulam is a renowned Polish-American mathematician, one of the two earliest Singularity thinkers along with his colleague John von Neumann). The noocytes rapidly multiply and evolve into a civilization in Ulam's body, replacing its original cells, correcting genetic imperfections, altering him inside out before they spread like a virus, assimilating other people as well as consuming the entire North America against the desperate attempts of authorities. The mega civilization made up of trillions of individual, intelligent, biological, organized, single-cell nanocomputers – spanning an entire continent along with infected humans who can sort of communicate with their noocytes which resonate in their bloodstream as musical piece – eventually leaves the Earth and transcends the physical plane of existence, freeing thought and information storage from the constraints of “molecular memory” in quantum state (Bear, 1983: 122). While none

of the elements in the novel seem particularly original – as similar ideas can be found in Gothic literature, folk tales and mythology, as well as in earlier works of science fiction, from Theodore Sturgeon's microcosmic gods to Philip K. Dick's automated factories, as Daniel Dinello points out (2006: 239) – what makes **Blood Music** disturbing is that the scenario is not presented as a definite apocalypse; moving beyond an allegory or a warning statement about where uncontrolled technology might lead, it actually exposes the strategic distortion of postmodern ethics and relativism in the hands of mass media, which has the ability to depoliticize the concept of perspective and serve it as a benign matter (or difference) of personal opinions, under the guise of a heterogeneous society and freedom of thought, where thought is ultimately and ironically grasped by the dominant ideology. The words Ulam utters as he tries to rationalize his work could be as well encountered on a hoarding board or television commercial: “We can be whatever we wish, or learn whatever we wish, or think about anything” (105). Thought, the inherent human activity, is freed at the expense of humanity and taken to another dimension beyond the limits of human perception: It is definitely not an apocalypse for noocytes. It is not clear whether individuality still exists: While each noocyte is practically a subject on its own, they act in complete harmony. Infected characters retain the sense of individuality; after all, their physical senses improve to the extent that they see the world better and hear the insides of their own arteries. However, they are essentially possessed by the nanoscale civilization and they lose their human form, becoming a part of the ever-expanding, amorphous, *gooey*, luciferous biomass. They are not dead, but they are not who they used to be, either.

At this junction of the genre as exemplified by **Blood Music**, it is still possible to see the traces of the New Wave science fiction produced in the 60s and 70s, primarily led by Michael Moorcock and J. G. Ballard in Britain: The issue of reality is still problematic, disastrous contingencies and frailties of the worldwide organizations are still a concern, and the narrative focus is still terrestrial as opposed to the Golden Age of science fiction which preceded the New Wave movement. However, we can pinpoint several major differences in terms of plot development,

which concerns the text-science relationship, and a slight change in perspective, which has a lot to do with the rise of neoconservatism from the mid-70s onwards and the implementation of Hayekian economics in the Thatcher-Reagan era. As for the latter, *the slight change in perspective* is nothing more than an asterisk added to the relativist ethics which, as a successful solution to the old parochial values, prevailed in the revolutionary ranks of the 60s and 70s, including the drug subculture, minorities, the second-wave feminism, and postmodernist thought (upon which the New Wave movement itself was found). Such asterisk is not insignificant, however, as it unfolds the concerns about the capacity of the same parochial values to adopt the revolutionary strategies of the relativist values upon themselves for self-protection and legitimization, and turn into a populist and global ideology behind the complex net of liberal economy. According to Jameson, it was this political climate which led to the rise of generic fantasy in mass culture as a reflection of neo-conservative ideology, as fantasy was able to adopt the possibilities offered by the changes in life sciences, bio-power and body politics into generic narratives in a much more marketable fashion than late hard science fiction (i.e., without referring to science at all), just like right-wing politics in the context of globalism was able to modify the nonconformist and pluralistic strategies of previous decades, to extend the boundaries of conformity in the interest of consumerism. As mentioned above, Jameson does not only identify a paradigmatic shift in science fiction at this historical threshold, but also a *bifurcation*, one division of which is late hard science fiction from the publication of **Blood Music** onwards. The other one is cyberpunk, consolidated as a genre with the publication of William Gibson's **Neuromancer** in 1984. According to Jameson, cyberpunk arose for no other reason than that science fiction as a genre faced with the danger of its own apocalypse, thanks to the rise of generic fantasy: “[S]o-called cyberpunk, for all its energies and qualities, can historically be interpreted as SF's doomed attempt at a counteroffensive, and a final effort to reconquer a readership alienated by the difficulties of contemporary science, increasingly hostile ideologically to the radicalism of more social SF (now generationally distanced by the youth culture), and frustrated by the diminishing

production of new yet formulaic easy reading in the SF area” (Jameson, 2005: 68).

This quote explains Jameson's distaste towards late hard science fiction, which is related to its second difference from the New Wave movement, namely the shift from literary inventions to scientific concepts that shape the plot. This is also a shift from physics (theoretical, astronomy and quantum) which defined earlier hard science fiction, to nanobiology and information technologies which, as mentioned above, Jameson finds very resistant to plot formation - and frankly, they require absolute specialization for a slight degree of intelligibility in scientific fields. Jameson also refers to Australian writer Greg Egan in this tradition, a highly successful contemporary hard science fiction writer who deals with many elements related to the Singularity – most of the issues examined in this study would also apply to him; however, Jameson's reference only informs us that Greg Egan is too unreadable to comment upon, and that Jameson is not “the only one” who thinks so (2005: 68). It is the confession referred above that I base my claim regarding the inconsistency in the apparent preference for science fiction over fantasy within Marxist literary scholarship, which manifests itself when the literary works in question contain too much science to fit in literary formulations, implicating my earlier concern that we might still have limitations to appreciate the genre as a form of art and will continue to have them as long as we base our theoretical approach on the ground of intelligibility alone. This is why Jameson mentions this *trend* in passing but does not include it in his chart of the stages in science fiction, which consists of (1) the stage of *adventure / space opera* from the works of Jules Verne to the 1910s, (2) the stage he calls *the mimesis of science* from the 1920s to the 1950s, when (3) the stage of *cultural critique* appeared until the 1960s and the 1970s, with somewhat overlapping stages (4) of *subjectivity* in science fiction pioneered by Philip K. Dick and (5) *the New Wave*, and finally, (6) the stage of *cyberpunk* from the 1980s onwards where his chronological analysis ends (2005: 93). It does not take account of how cyberpunk has evolved over the decades, it does not consider the fact that the excluded branch in the genre not only originates from the same pool but also continues to converge with other ones: For instance, **Blood Music** was as influential

as **Neuromancer** in the emergence of biopunk. Right at the heart of the bifurcation Jameson talks about, Bruce Sterling combined the two emerging subgenres in the dialectical Shaper/Mechanist universe of his 1985 novel **Schismatrix**, which deals with two contrasting regimes, one functioning through genetic engineering and the other through cybernetic augmentation. Two decades later, Charles Stross will blur the two branches and interpret it as a by-product of autonomous technology which leads to singularity, as I will discuss. In an era that has seen many bridges across the boundaries of dialectically opposed genres, as in the case of slipstream and the New Weird, this is only expected: Categorical distinctions subsist for convenience, and they should perhaps remain as long as they enrich the way we understand, conceptualize and analyse works of art. However, when they become tools of excluding certain literary works because they are unreadable, it might indicate that we should revise our definitions.

Jameson's exclusion of late hard science fiction from his taxonomy is indeed a curious phenomenon (even though it is not, as he points out, an exceptional case). There is not another instance in Jameson's oeuvre, as far as I am concerned, where he leaves a body of literary works aside simply because they are not intelligible or do not offer an *easy read*. In fact, the brilliance and originality of his oeuvre come from its rigorous demonstration that works of art in a given period are forms of expression which always move beyond the limits of intelligibility and should never be taken at face value. His analyses, which cover the entire literary history in relation to class conflict and the political unconscious from the Ancients, folk tales, medieval romance all the way to the most complex – and even unreadable, if there is such a thing – works of high modernism and postmodernism, barely touch upon the issue of intelligibility as one of his criteria for literary merit; in fact, he is not concerned with *readability* in his own works, which can get as complicated as the literary works in question, if not more. For instance, if we look into his remarks on “postmodern fantastic historiography” which describes the sophisticated works of prominent writers such as Thomas Pynchon, who does apply as much science as any hard science fiction writer to construct his narratives albeit in the form of alternative

history, it is not hard to notice the difference in tone and approach compared to the likes of Greg Egan whom he simply calls unreadable:

[P]ostmodern "fantastic historiography" takes up the slack of these historical "tendencies" and combines them into a genuine aesthetic that seems to know two variants or mirror spirals. In the one, you make up a chronicle (generational or genealogical) whose grotesque succession and unrealistic personnel, ironic and melodramatic destinies, and heartrending (and virtually cinematographic) missed opportunities mime real ones, or to be more precise about it, resemble the dynastic annals of small-power kingdoms and realms very far from our own parochial "tradition" (the secret history of the Mongols, for example, or wellnigh extinct Balkan languages which were once the dominant power in their little universe). Here, a semblance of historical verisimilitude is vibrated into multiple alternate patterns, as though the form or genre of historiography was retained (at least in its archaic versions) but now for some reason, far from projecting the constraints of the formulaic, seems to offer postmodern writers the most remarkable and untrammelled movement of invention. In this peculiar form and content -- real sewer systems with imaginary crocodiles in them -- the wildest Pynchonesque fantasies are somehow felt to be thought experiments of all the epistemological power and falsifiable authority of Einstein's fables, and in any case to convey the feel of the real past better than any of the "facts" themselves. (1990: 368)

The attitude that puts a certain emphasis on clarity, then, seems peculiar to science fiction which, at least within the Marxist tradition, so to speak, has the obligation to be formulaic; its distinct aspects do call for a specific treatment, but ideally, it should not diverge too much from other forms of literature. In other words, even though this approach seems to embrace the difference of science fiction upon first glance (perhaps better than mine, as I am concerned with treating it simply as *any* form of art), its rich intellectual production seems to work only insofar as science fiction conforms to the devices of other literary forms. On the one hand, the rationale behind this makes perfect sense: According to Jameson and many others, science fiction and epic historiographies of postmodernist literature are the two asymmetrical sides of the same coin, in that they both try to defamiliarize and historicize the present, regardless of the qualitative state of the spatio-temporally distant episode through which the work generates this alienation effect. The mimesis of science in plot formation, therefore, becomes a tool of abstraction to reveal the dominant ideologies of the present. It is understandable why simplified formulae at least in the service of revolutionary demystification – if not utopian solutions – would be desirable, and this explains the increasing academic production in the field of *more social* science fiction: Jameson is absolutely correct in his assessment that he is not

alone in finding the late hard science fiction unreadable. On the other hand, it is not hard to see why such an approach is not entirely fruitful for this study: How could we read a work of fiction if intelligibility is always on the other side of the horizon, and the work is set beyond that horizon, exceeding anything familiar to human comprehension? The writer – as well as the reader – of post-Singularity fiction essentially, admittedly gropes in the dark, at a snail's pace compared to the universe of exponentially growing technology and intelligence as depicted in these works which, by definition, deal with subjects of far greater evolutionary rates and information processing capacities than human species can dream of catching up, subjects as comprehensible to us as human subjects are comprehensible to snails. It may very well be an illusion: It is possible that we are already evolving far slower than technology, over which we might not have the control that we think we do. In fact, for some critics, this condition dates all the way back to the Industrial Revolution, and science fiction itself appeared as a survival mechanism for this very reason, in order to enable “us to understand, engage, and transform our world when our bodies and minds have not yet had sufficient time to adapt in a fundamental way to the world that we have created. Thus, science fiction is an evolutionary by-product that has a survival value or function for the human animal, because it prepares us for the future” (Ellis, 2012), which would also explain the reason that the academy is still obsessed with the issue of intelligibility when it comes to science fiction. Does it follow, then, post-Singularity fiction violates this function, because it does not *prepare* us particularly for its own scenario – it can prepare its characters, but we would not be prepared for a post-Singularity world and remain human at the same time – or, on the contrary, it fulfils this function in the most radical way possible, through an overload of cognitive estrangement in relation to both reality and fiction which might prepare the reader for anything short of the Singularity? Both stances could be defended, but one thing is clear: If we base our approach on intelligibility and cognition, or communicability of the semiotic systems implicated in post-Singularity settings, this study would become a 300-page-long criticism on the failures of the genre. This is not to say the aforementioned approach is wrong; it is

just not optimally conducive to producing new ideas corresponding to the genre, even though, I do draw on theories put forth by Jameson and other proximate scholars, as it shall be evident soon – and it is thanks to them we can refer to the aesthetic paradigm, to which I now turn, as *the new red*.

1.1. Perspectives for the Future: Lessons from the Past

If we get back to the primary claim of my study mentioned at the beginning of this chapter, that the post-Singularity subgenre offers an alternative perspective to the more popular paradigms of the utopia/dystopia duality, the word *perspective* is a deliberate choice. Its iteration as *the de-politicization of the concept of perspective* from the mid-70s onwards, very much related to *the slight change in perspective* that became apparent at the aforementioned threshold in science fiction following the New Wave era of the 60s and 70s, eventually leading to contemporary hard science fiction and cyberpunk-related genres (post-Singularity fiction being a hybrid of both), highlights its use as a key concept of my analysis to follow. The reason for this is twofold: Firstly, what seems to lie at the root of the entire turmoil within the genre – out of which post-Singular fiction emerged – is a struggle towards a constitution of an aesthetic, ethical, and political perspective under the conditions of technological growth and late capitalism, entirely distinct from the pseudo-relativistic world of opinions created by the same conditions. Either through the use of literary-scientific devices (sometimes at the expense of humanity and/or subjectivity, even though the ultimate issue underlying the scope of this quest is how we can construct a mode of subjectivity in the present), or the elimination of technological networks altogether, depending on the writer's strategy, it is a pursuit of reclamation, reclamation of the concept of perspective from the mass fabric of private opinions, not uncommonly presented as objectively valid ones, regardless of whether they are uttered by authorities or laymen. All at once, this struggle seems to have brought forth a shift in mentality in the premises of narrative creation itself, particularly in the case of utopian fiction which, as Jameson observes, for decades had the unique characteristic of formulatability, of being reduced to simple slogans and convincing programs that took their power from the elimination of certain social peril. For Jameson, Ernest

Callenbach's 1975 novel **Ecotopia** was the final utopian example in this traditional sense, along with other utopian works of the 1960s and 1970s, when the finance capital gradually produced utopian expressions of its own (2005: 190). The concept of copyleft developed in 1985, the issuing public copyright licenses under which many influential science fiction works have been released, as well as the hacker culture represented in those works – insofar as it manipulates and pushes the limits of what is thinkable within the dominant techno-semiotic systems – all indicate this struggle to find a way out of the overwhelming flood of marketable products including works of art, softwares, even *thought* and *perspective* as something to be promoted and consumed. Frankly, most science fiction released thereafter cannot be reduced to any of these; if we were to ask what could be the slogan of Charles Stross' **Accelerando**, for instance, we could perhaps think of the Nietzschean dictum “accelerate the process,” which, as I shall discuss later in the context of accelerationism, may not be utopian at all. Furthermore, it is not hard to imagine the rolling eyes in disdain when *the program* of the novel is revealed to be a sort of highly digitalized, auto-regulated post-scarcity economy in a mixture of interstellar virtual and actual spaces around a star system forming a matrioshka brain based on sentient, concentric Dyson spheres. Where do we locate the individual in this seemingly futuristic/Marxist fantasy that probably will not come true? And what is worse (for our contemporary anti-Cogito reflexes), does not the idea of a sentient star system champion the Cartesian thought? These questions are inevitable if we reduce the novel to a naïve utopian statement, and it would not raise less problems to read it as a mere satire or dystopia. However, if it holds true that the entire endeavour of the genre points towards a perspective beyond this dichotomy, perhaps we should actually go back to the birth of Cogito (as it is closely related to the development of perspective), without resorting to shallow criticisms of mainstream discussions which usually do not come in more sophisticated forms than the counter-arguments posited by the contemporaries of Descartes themselves. This direction is necessary for the second reason of my choice for perspective as a key concept, which offers a basis for developing the core endeavour of this study, namely the conceptualization

of science fiction as a form of art: It goes without saying that the concept of perspective is one of the greatest issues of the entire 20th century literature, including modernist and post-modernist literatures, and if we can build our aesthetic concepts on this basis, it should help us situate science fiction as a genre within the same paradigm, and define post-Singularity fiction as an extension of a long artistic pursuit. In a sense, this is to say that we are not dealing with anything new, and rethinking of the contemporary world in the light of historical periods itself is not a new scholarly effort: For instance, Richard Stallman, the pioneer of the concept of copyleft mentioned above, finds the roots of the hacker subculture in the *ars nova*, the musical counterpart of the early examples of perspective in painting in the 14th century, which he thinks was a *hack* on late medieval music (2002).

As the title of this study suggests, the exact paradigm I draw upon, starting with the issue of perspective, is *the neo-Baroque*, which has been increasingly referenced to define the 20th century art, philosophy and popular culture by many historians, culture theorists and philosophers for the past several decades. The increasing literature on the issue from the 1980s onwards would require a separate meta-analysis beyond the scope of this study, but for now it is sufficient to generalize the definition of the neo-Baroque in these works as the formal/aesthetic aspect of postmodernism: Exuberance, seriality, intertextuality, fragmentation, loss of totality, the instability of the truth of dominant ideologies, the shift from mimesis to illusion and simulacra as much as the shift from reason to sensations and body politics, the spatial turn, the manipulation of technology for artistic means to challenge the boundaries of norms are frequently revisited in the context of the neo-Baroque from different perspectives as to the motivations and amplitudes of the 20th century art in its affinities with the 17th century Baroque. Severo Sarduy, for instance, sees the origins of the 20th century neo-Baroque in Spanish literature and the works of Latin American writers such as Luis Borges, as a reaction to European colonialism and the Franquist regime (1975: 109). Likewise, drawing upon the works of Borges, Octavio Paz, Alejo Carpentier, Michel Foucault, Jacques Derrida, Eugeni D'ors, Yuri Lotman, José Maravall, Gérard Genette, and Walter Benjamin, Gregg Lambert defines the

neo-Baroque as the critical philosophy and aesthetics of the 20th century as a whole (2004). On the other end of the spectrum, Stephen Calloway finds the roots of the neo-Baroque among the British upper class aesthetes of the 1920s, and examines the traces of it in the early Hollywood cinema (1994). Angela Ndalianis, in her comprehensive study, draws parallels between the 17th century Baroque with a broad range of contemporary entertainment media, including the quadratura technique in illusionistic ceiling painting and the digital spectacle of science fiction cinema (2004: 160-179). One of the significant distinctions of her work is that it shows the neo-Baroque aesthetics does not only involve the artistic productions or the narrative structures in contemporary media, but it also extends to the actual world, making it a part of this aesthetic paradigm; especially her analysis of interactive media is reminiscent of the world depicted in Salman Rushdie's short story "At the Auction of the Ruby Slippers," but she celebrates the condition (2004: 115-20). Such an affirmative mode draws on an earlier work by Omar Calabrese, who defines the neo-Baroque in terms of the collapse of the boundaries between high and low cultures (1992).

It would be wrong to consider these works as speculative attempts at reinventing postmodernism; aside from the 20th century artists (including Latin American, Spanish and Italian writers) who drew heavily on the Baroque period, many thinkers of continental philosophy associated with postmodernism defined their work as Baroque instead of postmodernist. The most influential philosopher in this regard is Gilles Deleuze, whose each work – especially his solo monographs – is structured in a way that reflects his entire career: Regardless of his subject (which covers a broad range of fields including the literary works of Marcel Proust, Samuel Beckett, Lewis Carroll and Franz Kafka, cinematography, visual arts and, of course, philosophical subjects such as aesthetics, metaphysics and ethics), he always turns to the Baroque texts of the 17th century, usually to cap his analyses towards the end of each work, as if everything he has just said already exists in the Baroque. Similarly, the two final monographs of his career is on the 17th century Baroque philosopher Gottfried Leibniz, and Michel Foucault, respectively. The former almost offers a

summary of his entire philosophy, and the latter reads Foucault through it, but the interesting aspect of these two works is that, when read back to back, it accomplishes what the later theorists mentioned above attempt to do in their works: It defines the Baroque as a transhistorical state, and compares the attitude of two centuries – the 17th and the 20th – with respect to the critical and revisionist stance towards their past – Renaissance for the “original” Baroque, the 18th and 19th centuries for the neo-Baroque, through two representative thinkers of each era.

I will get to the specifics of this issue later, but initially, and especially before I get into what aspects of the neo-Baroque are relevant to our discussion, it is necessary to revise the 17th century Baroque, from the perspective of the perspective problem itself, before I trace the issue in the neo-Baroque and examine the theme of technological Singularity in science fiction through it. In this respect, my approach will be as compact as possible. I do not aim to develop a theory of the neo-Baroque as an over-reaching condition of our era, neither do I celebrate the condition as some theorists do. I also avoid drawing clear boundaries between modernism and postmodernism; instead, through the aesthetic vision put forth by the Baroque philosophy, I aim to trace a continuous line that can be observed in the 20th century science fiction, which gave rise to the 21st century post-Singularity works of Charles Stross – and this aesthetic vision will serve as a theoretical basis for my close reading of his work. As a starting point, like Deleuze, I turn to Leibniz's philosophy, which is more concerned with aesthetics than the works of the other two major philosophers of his era (i.e., Descartes and Spinoza). As I shall discuss, his theories were highly influential for the 20th century neo-Baroque philosophy and are still relevant; in this regard, his criticism of Descartes and the aesthetic solutions he puts forward with an emphasis on perspectives will be significant for the analyses of this study.

Of course, perspective in arts does not begin with the Baroque, neither does it firstly come into question in philosophy with Leibniz. If we go back to Renaissance arts where it was introduced, perspective, aside from its obvious textbook / technical definition, is essentially an attempt to construct new forms and favourable instants in a world which is no longer defined in terms of a succession of transcendent forms

within the flow of existence as was the case in classical antiquity all the way to late Middle Age (Edgerton, 2009). In other words, it is an imperative result that marks a shift from the world of ratios, mimes, given ideal forms, the diachronic succession of composition and decomposition to a new understanding of the universe in which no moment or point in space has a formal hierarchy over others, leading to the necessity for the invention of a divine eye that can cut across one of those moments, as a way out of the mechanical / macroscopic infinity now surrounding Man – which also explains the need for divine themes and incessant revisions of Platonism. We can observe this shift as a governing principle not only in arts, but also in the scientific revolutions of the period (such as the foundation of modern mechanics and the laws of planetary motion), all pointing toward a universe in which time, space and movement can be formulated as an abstract totality of infinite points that challenge the old concept of ideal forms. Thanks to the increasing obsession with infinity (which will regain significance as we discuss post-Singularity subjectivities), in which the very definition, substance and situation of Man was getting more and more shaky and insignificant than early Renaissance, the 17th century saw the next step in the same direction, in that the concept of perspective hitherto an issue primarily in arts were incorporated as a mechanism into philosophy, by none other than Descartes, for the construction of subjectivity as we know it. In most simplistic terms, his attempt was to regress from macroscopic / telescopic infinity to find a fulcrum on which the universe can be stabilized, or a niche too small to be penetrated by the universe, and construct a perspective in that fulcrum which would situate Man into the centre of infinity. It is important to note that, Descartes applied the same governing principles – which led to perspective in art, and subjectivity in his philosophy – to the very syntax of his philosophy, which is evident in his objection to the Aristotelian definition of Man as a rational animal, because it essentially implies a succession of forms (i.e., *animal* as a category, *Man* as its own form that belongs to that category but at the same time differs from it thanks to *rationality*, which is yet another transcendent quality of thought or the capacity to evaluate the word of objects in terms of ratios), while the new paradigm of the world required *implication*

instead of deduction (**Meditations**, 26). *Cogito* is basically a solution to this, a new formulation of Man which implicates doubt, thought, existence as a thinking entity in one statement at once, positioning the *thinking I* as its fulcrum, the centre around which the universe can be reconstructed and infinity can be handled insofar as Man thinks. On one hand, this approach materializes thought, which is no more transcendent and can centralize *I* in any point of space and time where thought can emerge as a corporeal activity and a degree of power, hence its relevance in the 20th century within the context of ideology; on the other hand, it obviously subjects all other human aspects to thought, the smallest unit of certitude one can regress through the method of doubt, which in turn *implicates* thought, and assumes that any perspective that is built upon anything other than thought (such as social or individual behaviours, physical senses, motivations, fervours) is not only fallible, always in the need of correction, but possibly harmful for the entire epistemological ground. We can remind ourselves of Descartes' famous bad apple analogy: If one is worried that some of the apples in a basket might be spoiled, s/he must firstly remove all the apples out of the basket, get rid of all the rotten ones (even the slightly bad ones), and then select only those that are completely fresh, to prevent further spoiling (**Meditations**, 481).

In Leibniz's philosophy, this approach does not work because it poorly bypasses the issue of infinity, which is supposed to be the entire point of departure in the first place. The formulation of *Cogito* leans on a blind spot, because it is only able to deal with infinity on a macroscopic scale, while infinity can equally move towards the other direction, as the discovery of microorganisms in the second half of the 17th century indicated – this could not be a concern for Descartes, because by the time he died in 1650, microscopes were still primitive; it had to wait for three decades until it made its full impact in philosophy with Leibniz, for whom the insufficient method of doubt would now lead to infinite regression, because the number apples could be very well infinite, and we might never see the bottom of the basket. And what if there were microscopic traces of decay which the naked eye could not notice? What if there were infinitely small apples? We would need new

methods of correction beyond Descartes' black and white thinking, a new system of evaluation for each level with its own mechanical laws, all the way to the infinitely small level. In mathematics, this led Leibniz to develop infinitesimal calculus, the study of convergences of infinite series, and in modal metaphysics he had to redefine the concept of individual, which would now have to be just a qualitative degree in the capacity to contain infinity. That is to say, physically, every individual is an infinitely divisible and infinitely complex (which differs from atomism, because atoms are also infinitely divisible for Leibniz), but this is not what makes them an individual; it is the capacity to interact with other bodies as a unity of its own, to form other complexities as a part of the external infinity which it internally contains. *Monad* is the famous concept of his to describe this notion; it is the simple substance that corresponds to the physical complexity of a body, that which makes it an individual between the two directions of infinity.

This is admittedly a difficult thought, but it suffices to say that monad does not signify the human mind, or mind in general, though it can be also those things; for instance, matter, or a given molecule can be rediscovered in infinite ways, and can be altered to infinity, but this is only possible insofar as it corresponds to its potentiality which always existed as a unity, unlike the infinite divisibility of the molecule itself – an influential thought for the 20th century criticisms raised to Aristotelian hylomorphism, which renders matter passive. Such potentiality is always in the dark, like the attic of a building with no windows (perhaps the most known quality of monads is that they have no windows), but still contains the entire world outside as a microcosm, and can be actualized only by means of a body, or the lower floor of the building, corresponding to it. Therefore, they never communicate one another, and every single monad differs from the rest of the others by infinitesimal degrees, even though they contain the same universe; communication or interaction is infinitely multiple, and only possible by means of bodies which are infinitely composite. Monads can be also expressed through the emergence of consciousness or *I* as a thinking entity, but there is an infinitely complex web of unconscious micro-perceptions behind it which gives rise to thoughts. Giving the appearance of reality

extended from the lowest monads to God, which is also a monad in Leibniz's philosophy, it is then a matter of degree in complexity in relation with infinity:

The passing state, which encompasses and represents a plurality within the unity (or simple substance) is nothing other than what is called *perception*, which must be distinguished from apperception, or consciousness, as will be apparent in what follows. And it is here that the Cartesians have fallen far short, as they have given no thought to perceptions which are not apperceived. This also is what made them believe that minds alone are monads and that there are no souls of beasts or other entelechies, and also led them to make the common mistake of confusing a long stupor with death, in the rigorous sense of the term, which has made them fall in with the Scholastic prejudice of souls entirely separate from bodies, and has even confirmed some twisted minds in the belief of the mortality of souls. (**Monadology**, 16)

The reason that I bring up this philosophical basis is to show how it redefines the concept of perspective, not merely as a visual and static cross-section of the universe recaptured by the divine eye, but as a dynamic process repeatedly actualized and produced through infinite micro-perceptions as a part of the individual. This is not to say we cannot observe simultaneous changes in perspective in Baroque art. Illusionistic ceiling paintings have been widely studied, as mentioned above, and we can observe these changes elsewhere: The Baroque painting *Las Meninas* by Diego Velázquez is a famous emblem of poststructuralism, for de-focalizing its main subject (the royal presence), intermingling the faces of the spectator with the real face of the painter and the royal personage as opposed to their representation, subverting the power of the Gaze, hiding the represented canvas, and suggesting the modern spectator their own historicity by offering a false reflection in the background – the transhistorical elements of the painting being the necessity of a lack in the formation of the subject, the problem of representation and visibility, and perhaps, the dog in the foreground. The painting has always drawn attention throughout history, but its significance in contemporary philosophy stems from Foucault's 1966 work **The Order of Things** which basically analyses the historicity of perspectives as influenced, according to him, by the neo-Baroque text “Celestial Emporium of Benevolent Knowledge” by Borges. Further still, the alterations in perspective in Baroque art include landscapes, which come into prominence as opposed to Renaissance art where they merely served as backgrounds to divine themes, still lifes which combine seemingly random objects (rotten and fresh fruits,

corpses and living bodies of animals as well as animals as food and decoration, playing cards, tobacco, silk, wine, etc.), sometimes the combination of both, as in the case of Abraham Brueghel's work, and the development of tenebrism, which uses darkness as an element of dramatization.

However, in order to read this as a shift from the omnipresent and homogenizing eye that captures ideal forms to a wandering and subjective eye which imports objects to the scene, or produces a perspective as a succession of events building up to the (dramatic or trivialized) event as it is depicted, we would have to refer to the philosophy of Leibniz. This is because perspective as an actual (and we could say, performative) prerequisite of subjectivity, or as an act of subjectivation is first and foremost established within philosophy by Leibniz, and it is not easily noticeable in art until the late 19th century onwards (starting with impressionists, all the way to cubists). What I mean by perspective as an actual prerequisite of subjectivity is that, in Leibniz's philosophy, one can become a subject insofar as it is able to possess a perspective presented by the universe, which is in turn composed of the sum of all perspectives. Leibniz uses the analogy of town to explain this phenomenon: Each perspective is a subjective labyrinth, and the town consists of these labyrinths. Therefore, the concept of perspective is no more a visual cross-section of the universe idealized and fixed in time, but an interior path one crosses, which makes up the reality of the exterior:

The same town, when looked at from different places, appears quite different and is, as it were, multiplied in *perspectives*. In the same way it happens that, because of the infinite multitude of simple substances, there are just as many different universes, which are nevertheless merely perspectives of a single universe according to the different points of view of each monad. (**Monadology**, 27)

It is important here to clarify the terms “perspectives *of* a single universe” and “*according to* the different points of view of each monad”, so as not to fall back into the relativity problem that I claim is one of the major issues science fiction has had to deal with since the 1980s – and if we are to read post-Singularity fiction as an extension of this paradigm, these terms must be understood clearly. In Leibniz's perspectivism, perspectives belong to the universe, or the world of objects presented as a mathematical function, which influenced French architect Bernard Cache to

develop a theory and a mode of production called non-standard architecture, based on a new definition of the object “no longer designed but calculated” (1995: 87, see Figure 1.1). The *variable* object which can lead to new forms according to the behaviour of the subject without having a fixed form, the object as the intersection of possibilities and limitations of “numerical manipulation” applied on “texts,



Figure 1.1: “Water Flux” by François Roche, Non-Standard Architecture Exhibition, Centre Pompidou, Paris (2004).¹

Source: <https://new-territories.com/waterflux08bis.htm>

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- 1 Several models of this object, influenced by Cache's theories, were exhibited in the 2004 exhibition. Even though the potentiality of the object, its virtual presence, its variable fluidity, rather than its use-value, is emphasized in this school of thought, it was presented with the following scenario: (1) Digitization of the envelope of a traditional habitat. (2) Scooping out hollows within this volume as if it were an ice cavity, but in full wood by a 5 axes drill machine. (3) Water states and flows vary according to the seasons: The ice flows and freezes; the ice façades freeze and melt, forming a pond in front of the building. (4) Exacerbation of the winter climate by artificial snow (500 m³). (5) Construction by CNC machine processing, 5 axes, in full wood (2000m³-2000 trees, extracted on two years from the maintenance of the forest) and reassembling the manufactured 180 pieces on site. (6) Re-activation of local economy (50% of the annual wood production of the territory of Evolène village on two years)

information, images, sounds” (as well as new architecture models based on this definition of the object, which Cache redefines as objectile), for Cache, is inherently what Leibniz conceived the object to be, and it can be finally actualized through digital production and info-technology (1995: 95-8).

Leibniz's conception Cache refers to is that it is not the subject's view which designates the reality of the universe, but the subject emerges within one of the perspectives *of* the universe containing these perspectives as infinite amount of designs, modes of expression, a manifold of intertwined multiplicities in motion through separate fabrics of time, none of which are characteristics of the subject itself – but are prerequisites of subjectivity that emerges insofar as an individual can occupy one of these and reflect it, not merely through passive sensibility but also, and primarily, by means of active perception and appetite. Through this pluralistic approach to the issue of perspective, Leibniz tries to overcome the subject-object dichotomy, as well as the mind-body problem. However, considered this way, it still seems too object-orientated, to the extent that such an aesthetic model would amount to reduce the subject to almost nothingness, or an infinitely minute particle in the absolute reality of the town/universe.

This is where the other half of his formulation, that the town or the universe is multiplied *according to* the different points of view of each monad, has a strategic significance: In order to understand this, we need to look into Leibniz's theory of possible worlds, which completes this aesthetic paradigm by forcing us to rethink – in the opposite direction of the issue of perspective-laden objects – the relationship between the interior and the exterior, for it is founded on the principle that the individual has an infinite number of possible worlds within it. In other words, the town/universe contains worlds within individuals, and these are the worlds of the perspectives in which each individual is situated, or through which it can emerge as a subject. Multiplication of universes as perspectives of the same universe *according to* the different points of view of each monad simply means that, in a given moment, there is only one possible world within each individual that is *compossible* with the rest of the worlds within other individuals which are equally able to coexist in that

given moment. Furthermore, these individual worlds must coexist *in accordance with* the actuality of the town/universe which they constitute. At any instant, then, the universe is made up of a combination of worlds selected in a certain way that optimizes the complexity and richness of creation, giving the illusion of causality while there is no causal chain among these worlds, according to Leibniz (Wilson, 2000). We can think of the universe as a philharmonic orchestra, where every musician has an infinite number of musical scores before them, but the ones each of them happens to play for their own self-expression, without even heeding or perceiving one another, somehow spontaneously constitute a perfect symphony; other musical scores are still possible and do exist, but they are not *compossible* in this orchestra, which is the richest, the most variable and profound of all other possible orchestras that can be composed of an infinite number of combinations utilizing other musical scores which are eliminated in this one.

Such is the Baroque cosmological model put forth by Leibniz. If we consider how each moment is composed as a combination of monads, each with an internal, individual and close series of causation (i.e., causally unaffected by the outside world), it is easily observed that there is not really a teleological view of linear history in this model, or even a systematic view of history, which did not exist until the 19th century – hence my choice of the term *fabrics* of time above, for every object seems to exist in its own temporal curve. By teleological view, I mean the two greatest grand narratives of his time: Greek fatalism and Christian eschatology. In fact, concerning the former, he proposes two forms of truth, namely *necessary* truths such as mathematical propositions, the opposite of which would be a contradiction (e.g., a sphere cannot be a triangle), and *contingent* truths which are accidental or singular, meaning the possibility of their opposite does not violate the contradiction principle (**Philosophical Essays**, 217). In other words, we can posit two mutually exclusive events to take place in the future, or the simultaneous negation of a single event, such as Aristotle's famous sea battle example, and argue that the two events will occur at the same time, or the sea battle will take place and not take place simultaneously, but in two different worlds. The same argument can be equally

posited for the past, which is contingently (and not necessarily) true, and therefore, it coexists with other possible pasts, but the truth value of each one is impossible with others.

Leibniz's point of departure for this paradigm, to recall, was to deal with the issue of infinity beyond the mechanistic (and increasingly nihilist) views of his time, and his solution is primarily an aesthetic one, which does include the concept of pre-established harmony to explain why order exists instead of chaos – and a theistic filter in the selection of possible worlds. However, Leibniz uses this model for another type of teleology that he invents in what he calls *theodicy* in order to handle the problem of evil – which, by the way, is probably the weakest, and the dreadful part of his philosophy in terms of its ethical and political implications especially as it concerns the contemporary world, but crucial to mention in order to demonstrate how it was revised in the 20th century neo-Baroque which will be our next step. Leibniz's theodicy is founded on the claim that the sum of entire existence of which we are a part is the best combination of possible worlds, not only in terms of aesthetic depth as mentioned above but also overall goodness in the spectrum of good and evil. In order to explain this, he draws on the Biblical story of Adam, which might also illuminate the cosmological model I outlined above if it is still too abstract: According to Leibniz, God did not *necessarily* create Adam to sin, as it is not a necessary but a *contingent* truth. Instead, God created Adam who, as a fulguration of God's infinity, contains an infinite number of worlds with him (that do not exist outside the Adam-monad who expresses them), which also means there are an infinite number of different Adams *in* a single Adam, but each corresponding to different worlds: He is not the first man in another world, he is not even a man in yet another world, he is created somewhere outside the Eden in a different world, in some world he resists the temptation to sin, while in another he dies before having the chance to sin, there are even an infinite number of worlds which define Adam in infinitely different ways merely in relation or non-relation to Eve (who is also infinitely multiplied), and so on. These are Adam's possible worlds that position Adam into distinct perspectives and thus produce distinct subjectivities. However,

God actualizes only one of them, and this selection does not prioritize Adam or any individual; God simply selects the one which is *compossible* with the other worlds that in turn constitute the best combination of all possible worlds. This combination, as it happens, only contains the world in which Adam emerged as a subject that we all recognize today with all of his attributes and predicates – the world in which he sinned (**Theodicy**, 111). In other words, God freely chose the world where Adam chose to sin on his own free will, but this world's truth or necessity is contingent on the concept of the best of all possible worlds. On one hand, such formulation recovers the concept of subject, which contains an infinite number of perspectives even though only one of them is compossible with the best of possible worlds. It can be also understood why it does not concur with orthodox teleological arguments: Even though the best of possible worlds seem to flow in a causal chain, because all actual events belong to the same universe, it is nothing more than an aggregation of infinitely minute substances within each individual (subject and object alike) that has ever existed – and these substances have their own internal causality, without any a causal relationship among themselves. Physical causality as we know it is only possible among multiplicities, which reflect the internal causality of each individual body but are not causally related to it; they just concur in harmony with different causal mechanisms. On the other hand, even though this model does not necessarily require a teleological reason or a defence for meaning, Leibniz applies this model to recover God as the ultimate sufficient reason behind the pre-established harmony, which generates more theological and epistemological problems than it solves: How could we know, for instance, that this is the best of all possible worlds? How could we know it is not actually God who is impossible with the infinite potentiality of the universe? Theodicy is one huge project over the otherwise obvious confession that we cannot know.

There is an interesting passage in Jameson's study that mentions this deadlock in Leibniz's monadology, which he defines as a *clumsy* proto-cyberspace anticipating the decentralized systems which have been developed and/or conceived thanks to digital technologies (2005: 167). This is not surprising, as Norbert Wiener, the

originator of cybernetics himself, gives credit to Leibniz's system as a forerunner to modern computers and acknowledges his role in cybernetics:

If I were to choose a patron saint for cybernetics out of the history of science, I should have to choose Leibniz. The philosophy of Leibniz centers about two closely related concepts—that of a universal symbolism and that of a calculus of reasoning. From these are descended the mathematical notation and the symbolic logic of the present day. Now, just as the calculus of arithmetic lends itself to a mechanization progressing through the abacus and the desk computing machine to the ultra-rapid computing machines of the present day, so the calculus ratiocinator of Leibniz contains the germs of the *machina ratiocinatrix*, the reasoning machine. Indeed, Leibniz himself, like his predecessor Pascal, was interested in the construction of computing machines in the metal. It is therefore not in the least surprising that the same intellectual impulse which has led to the development of mathematical logic has at the same time led to the ideal or actual mechanization of processes of thought. (2019: 19)

Wiener's enthronement of Leibniz as *the patron saint for cybernetics*, I would argue, does not only establish his significance for the emergence of cyberpunk centuries later, but also indirectly makes him an early founder of the Singularity discourse, or at the very least, an important milestone for the right-wing liberal foundations of the extropian thought in the late 20th century, by way of cybernetics which, in a sense, tries to overcome informational entropy by means of *the reasoning machine*, or mechanization of semiotics (Raulerson, 2010: 47), which goes back to the early 20th century works of Charles Sanders Peirce himself, the neo-Baroque shift being that Leibniz's conception of a calculus of rationality is replaced with the notion that rationality itself is machinic. Entropy is originally a concept related to the second law of thermodynamics, referring to the gradual (and increasing) diffusion of the material order, decrease in energy supplies and the inevitability of chaos. Informational entropy, likewise, refers to the increasing randomness inherent in the sophisticated and otherwise ordered systems of information which constitute the civilization, which cybernetics tries to minimize by means of technology and statistics to retain order as much as possible. The term *extropy*, therefore, describes the set of strategies to counter the entropic dissolution of social and physical systems, expressed in relation to cybernetics in the late 1970s (Kickert, 1978), conceived in Diane Duane's 1983 **Star Trek** novel **The Wounded Sky** within the context of transhumanism, and rendered into a full-fledged philosophical concept by British philosopher Max More since the late 1980s. It is primarily thanks to More and the

Extropy Institute which he founded that extropianism has become a secular right-wing utopian revision of progressivism and economic expansion, a radical advocacy of technocultural growth in exponential rates, faster than the otherwise inevitable decay of the universe as a result of entropy. Even though More uses the term Singularity only sparingly, extropianist thought necessarily conceives of a future based on it, in order to transcend death, extinction and entropy-bounded biological mechanisms via transhuman technology hypothesized to outspeed and eliminate entropy.

Jameson's discussion on Leibniz's *clumsy* cyberspace in the form of monadology as an early origin of the 20th century extropian conception of cybernetics thus outlined concerns one of the major dichotomies that he finds in the utopian discourse, namely the dichotomy of happiness and freedom which is mostly grasped in the issue of subjectivity, even though we do not have to restrict our schema to two antithetical components. A permutation of happiness, freedom, security and equality can result in a dystopia or a utopia: A free, secure and equal society without happiness, or a happy society engineered through controlled ignorance, for instance, might be conceived as utopias, whereas it might be security before anything else which is required for any conception of utopia under other conditions, and we know the generation of fear is not an uncommon tool for the justification of totalitarian regimes. For Jameson, at the root of these variations lies the question if subjectivity should be externally modified, or set free to find its utopian expression – of course, the answer would change at any point of history, depending on the dominant perspective concerning human nature, and this would also determine the setting of utopias produced in any era, which can be pastoral or urban, each having a specific relation to individualism and collectivity, difference and identity. Jameson here has in mind the cyberspace as an anarchic plane that can support utopian enclaves for the split subjects of postmodernism to pass through, which is one of the expressions of Deleuze's redefinition of the Leibnizian monadology as *nomadology*. For now, I will not get into the details of nomadology so as not to complicate the issue at hand, but it suffices to say that Jameson designates the Baroque tradition on the “freedom” and

“urban” side of the utopian thought (as opposed to happiness and pastoral/rural), and this is problematic for the reasons I mentioned earlier in this chapter: The multi-perspective nomadic model of the digital era is a perfect fit for late capitalism. The local and the minor are glorified and assimilated to the Universal, cultures are commodified, one place becomes just as good as the other, which means more places to be sold to curiosity and the search for difference as a distinct form of consumerism which does not look like consumption; the old form also changes slightly, for one is still *free* to migrate from one career to the next, or from one digital experience to the other, while millions of people are forced to become refugees and migrant workers. The conditions must be too familiar to the reader to enumerate further, but Jameson's concern is that the decentralized conceptions in art and philosophy reinforce “the new social and economic forms of late capitalism” that they try to undermine (2005:164). This is only expected for Jameson, because, it is the imperfections of each utopian conception which keep the utopian impulse productive in the first place; after all, Leibniz's *clumsiness* might be a good thing.

Jameson's view on decentralization and late capitalism is true on the condition that it is not the artists and thinkers of the late 20th century themselves who reinforced the socio-economic forms of the era, because they were aware that every perspective could be appropriated by dominant structures of power, and they hardly ever proposed their own as utopias per se – this is the entire point of certain post-structuralist thinkers, as I will show in a moment, and it is an issue Jameson is aware of elsewhere, as his own observations prove that conventional paradigms of utopia have not worked since the 1970s (which is one of the major problems his work tries to overcome), as I noted earlier. For now, I leave these discussions aside for my examination of the neo-Baroque and close readings of literary texts in the following chapters, but the reason I bring up Jameson's remarks is to elaborate *the original* Baroque further, for it is obvious that Leibniz's monadology is not clumsy for the lack of digital technologies to bring the decentralized thinking to its full expression. We do not need cybernetics to conceive virtual planes and decentralized networks; they have existed throughout history in social formations (tribal as well as modern),

underground organizations, guerilla warfare, piracy mappings, black market in capitalism, underground systems in metropolises, and so forth. The real reason Leibniz's system becomes *clumsy*, in my opinion, is not that every utopia has imperfections and deadlocks, as Jameson says; on the contrary, it becomes clumsy because Leibniz attempts to conjure up a utopia through it, while it is inherently beyond the utopia/dystopia duality. At the moment of total decentralization, the transcendent signifier re-emerges as God; his pluralistic system defines Man as a free subject, only to be subjected to God's free will – which is not entirely free, for it is *this* world God *has to* choose. He tries to counter the increasing nihilism of his era at the expense of the possibility of a better world. Spinoza, the other major philosopher of the Baroque era, did not resort to such defences, and this is exactly where the power of his philosophy resides: God (or Nature) is simply beyond good and evil in Spinoza's system, which is founded on ethics rather than aesthetics, and his ethics is only concerned with bodily encounters, which can enhance or destroy the vitality of existence – that is the measurement of good and bad, or joy and sadness. If we compare his reading of Adam's story to Leibniz's interpretation, we can see how straightforward it is: God commanded Adam not to eat the apple because it would disrupt the endogenous order of his body. Adam, contrary to the Christian doctrine, was completely ignorant of what powers his body had and what the apple was in itself or how the encounter of these two bodies would naturally result; he thought he was free, he thought God was free, while neither of these assumptions were factual. Therefore, he believed that he had committed a sin, that the act of eating the apple was an evil deed in itself because of some divine value of morality which, for Spinoza, does not exist (Spinoza, 2007: 35). The world is still infinite, but infinity in Spinoza is more clearly the flux of creative power at the present; a composite body is a degree of power in this flow, and the entirety of ethics concerns the actual power of exceeding one's limits and enhancing the vitality of existence through as many encounters with different bodies as possible. This is necessary for self-expression, since we cannot know anything about our bodies unless they interact with other bodies (just like Adam did not know how his body would react to the apple). The

concept of God in Spinoza is the infinite power of actualization and boundlessness within this universe, which is the only possible one. Nature, beyond good and evil, simply *allows*; it is the Law and moral values that are founded on principles of prohibition, and thanks to these models people have come to define God as the ultimate Judge. We could still outline a version of Baroque aesthetics in Spinoza's philosophy: Perspective is one continuous, fluctuating and indifferent line of which the entire creation is a part, with subjective affects and affectations contributing to the fluctuation of the line. There is no free will in this process: Embracing ethics in the face of (and despite) determinism is one of the most fascinating aspects of Spinoza's philosophy.

The concept of theodicy reflects Leibniz's passionate effort to overcome this perspective put forth by Spinoza, his nemesis: He moved from the mere infinity of possible worlds (which emerged as a necessary part of his pluralistic philosophy) to the concept of the best of all possible worlds to counteract against Spinoza's necessitarianism, he invented the concept of pre-established harmony to recover a theistic world view against Spinoza's pantheism. As I said above, the ethical and political implications of it are horrendous; the best of all possible worlds is itself a naïve idea criticized and ridiculed by many other philosophers such as Voltaire, Schopenhauer and Bertrand Russell. However, the reason it draws so much criticism in the first place is that the rest of his philosophy, the elegance with which he approaches the problem, and, regardless of the ends he applies it for, the profundity of his aesthetic construction – which is our primary concern here – in its entirety is one of the most creative, influential and thought-provoking systems in the history of philosophy, which is why it is still relevant. In fact, the way Leibniz's aesthetics is constructed is so enriching in its scope that it inevitably opens a quite revolutionary door in the field of ethics despite Leibniz himself, as it shows that we are not merely composed of predicates, aspects or actions which are compossible with the actual world in which we exist; we also possess an infinite potential to resist this actual world, even if it is not actualized by God. Adam is not merely a sinner; in Adam, there are an infinite number of resistance points against the sin, the totality of which

is actually greater than the act of sin, or his emergence as a subject from the point of view of the sin. Furthermore, the higher number of impossible worlds an individual (or monad) is able to possess, the more powerful or higher it is in individuation which, following Descartes, as mentioned, was seen to be a matter of degree in the capacity to contain infinity.

At once, we can establish the affinity of this thought with Foucauldian analysis, though any formal syllogism requires oversimplification: Leibniz's town analogy in Foucault would be the power system, a strategic diagram or a map, while its labyrinths would be the strata of historical formations, institutions, statements, visibilities, practices, archives and fields of discourse. The particulars of this system would need to be redefined according to an entirely different set of terminologies for a thorough projection on the Baroque model, but what concerns us is the third component in Foucault, namely the issue of *resistance*, which usually goes unnoticed amidst the overwhelming body of works on power-knowledge relations, and this third component is more clearly related to the Baroque, especially in the field of ethics that I claim is opened in Leibniz's system despite himself. As widely known, resistance is not merely opposition in Foucault, neither is it a mode of existence which needs the external world (i.e., the town) to define itself, as Hegelian antithetical thought of negation is usually understood; rather, resistance *precedes* control, it comes before the systems of control which need resistance to define itself. In other words, resistance lies beyond the borders of the town as the absolute Outside, the ontological ground from which the exteriority of the town is drawn, not the other way around. Life, for instance, as the resistant vitality of matter against death, precedes bio-power, and it becomes a matter of ethics to recover life beyond the boundaries of bio-power, that is, a life without nations, the hierarchy of species, the mechanisms of population control, and so forth. Resistance is thus the unthought element, the invisible, the unspeakable, or, in Leibniz's terminology, the *impossible* beyond the city proper; systems of control do not produce resistance, they problematize the existing forces of resistance (not necessarily of opposition), imprison, define and integrate them according to the conditions which govern the

limits of the social field, private life and so forth. That is why Foucault rejects offering any utopian solution: Systems of control will always appropriate forces of resistance, and new forms of resistance will have to be recovered according to what remains beyond the town in that specific historical era, at the same time mirroring it, because resistance is always a subject of scrutiny for systems of control. However, it would be a mistake to theorize an idealist political-ethical paradigm based on marginality, or a concept of peripheral resistance, because the absolute distance of resistance brings forth its absolute proximity, which refers to resistance as a power of subjectivation which lies deeper than the subjective perspective in which we are situated according to the governing principles of the power-knowledge systems of our historical era; Foucault's entire theory of resistance is conditioned on the act of folding the Outside on the Inside, recovering the Outside at the heart of the town, or the problematization of the Self as a historical construct. The town is constituted by monadic substances (i.e., subjects) as in Leibniz, *subjected* to the exteriority of the town, but the absolute outside can be only recovered as the absolute inside which resists subjection, without requiring a relation with the town this time, as it concerns the relation to oneself; (re)subjectivation against subjection, that is the main thesis of Foucault's **History of Sexuality**. If power relations begin at the infinitesimal level, and subjection begins with one's relation to oneself (hence the primacy of sexuality, problematizing pleasures in ancient Greece and desire in Christianity as a condition to govern others by firstly governing one's self), resistance as an ontological field beyond the town is to be rediscovered at the infinitesimal fissure between the self and subjectivation. It is in this sense Foucault's concept of resistance is closely resonant with Leibniz's definition of the subject. In Deleuze's analysis of Foucault in Baroque terms, heterotopias are nothing other than social models of monads containing impossible worlds while mirroring the town at the same time, and therefore, their existence is both disturbing and necessary for the external town, both resembling to it and infinitely different; they are both closely related to the external town and independent from it (1988: 97). On a subjective level, it constitutes the future, the production of a perspective of the future as a power of resistance that

precedes the present and its limits (à la Leibniz), the crossing of which is the ethical act of subjectivation:

On the limit of the strata, the whole of the inside finds itself actively present on the outside. The inside condenses the past (a long period of time) in ways that are not at all continuous but instead confront it with a future that comes from outside, exchange it and re-create it. To think means to be embedded in the present-time stratum that serves as a limit: what can I see and what can I say today? But this involves thinking of the past as it is condensed in the inside, in the relation to oneself (there is a Greek in me, or a Christian, and so on). We will then think the past against the present and resist the latter, not in favour of a return but 'in favour, I hope, of a time to come' (Nietzsche), that is, by making the past active and present to the outside so that something new will finally come about, so that thinking, always, may reach thought. Thought thinks its own history (the past), but in order to free itself from what it thinks (the present) and be able finally to 'think otherwise' (the future). (Deleuze, 1988: 119)

Such transition in Foucault already relocates our discussion to the neo-Baroque paradigm. However, as I stated earlier, this is not a sudden rupture, or a re-emergence of the Baroque in the context of postmodernism, but a continuous process crossing several centuries. Whereas it is possible to trace its direct influences (especially in Kant) and the revisions it underwent in the following three centuries, such an endeavour is beyond the scope of this study, so is the entirety of Leibniz's or Foucault's philosophy; I have just outlined the Baroque aesthetics on the basis of perspectives, and my primary interest lies in the 20th century neo-Baroque aesthetics as a whole, preceding postmodernism – and works of science fiction before postmodernism, since it is more related to our discussion to follow. In this respect, one of the most direct and seminal transitions in the early 20th century is evident in the English-speaking world, particularly in the works of other mathematician-philosophers, such as Charles Sanders Peirce and Alfred North Whitehead. For now, Whitehead's philosophy is more pertinent to our subject, because his entire work other than **Principia Mathematica** that he co-authored with Bertrand Russell reads like a revision of Leibniz's philosophy with later philosophical arguments and scientific developments in mind, specifically quantum mechanics, Einstein's relativity, English empiricists and analytic philosophers. Like Leibniz's infinitesimal calculus which is at the root of his philosophy, Whitehead developed point-free geometry which actually sets out to formulate *events* and their mereological (part/whole) relations on the four-dimensional Minkowski space, rather than point-

based geometric objects on a Euclidean space, a point being nothing more than a connective region between the events of inertia and movement, itself an event which cannot be contained in space and time (such as a photon), making it the absolute limit rather than the ontological unit in Whitehead's mereotopology. The motivation behind this is entirely philosophical: Whitehead defines existence as an event or a process which gives rise to subjective forms rather than a reality of permanent substances which give rise to processes – which is why his philosophy has come to be known as process philosophy, even though he called it organic realism. In his model of events, Whitehead maintains Leibniz's calculus-based micro-perceptions, according to which every event consists of an infinite number of minute extensions with intrinsic properties Whitehead calls *actual occasions*, pretty much synonymous with Leibniz's monads:

This is a theory of monads; but it differs from Leibniz's in that his monads change. In the organic theory, they merely become. Each monadic creature is a mode of the process of 'feeling' the world, of housing the world in one unit of complex feeling, in every way determinate. Such a unit is an 'actual occasion'; it is the ultimate creature derivative from the creative process. (Whitehead, 1929: 80)

An event, then, is the nexus of actual occasions, haecceity or *thisness* of a subjective form: The formation of an electromagnetic field, the unstable emergence of sub-atomic particles in a vacuum, a breeze, an Egyptian pyramid, the evolution of the eye, consciousness, the universe, the typing of this sentence, its reading process are all events made up of smaller events and constituting parts of greater events, each with intrinsic characteristics that contain or extend to the entire existence. “The collision of hail or rain with hard surfaces, or the song of cicadas in a summer field,” as Iannis Xenakis puts it, “are made out of thousands of isolated sounds; this multitude of sounds, seen as totality, is a new sonic event” (1992). Likewise, elements that come together for no apparent causal relation among themselves can also constitute events, such as still lifes or landscapes if we reconsider the Baroque art; each component – as the nexus of smaller occasions – contributes to the event, making it *this* individual still life or landscape which is a part of the Baroque event, and so on. Actually, this is here Whitehead's difference from Leibniz (as well as the difference of the neo-Baroque from the Baroque) begins: We cannot talk about

individuality any more, other than *individuation* as a relational process. As mentioned, Leibniz's monad is windowless; it contains the entire set of aspects and predicates of the individual as well as the infinity of existence as a microcosm, but these are actualized insofar as they are in harmony with the perspectives this world offers, or insofar as they are compossible with the best of all possible worlds while the rest of it is excluded. In the neo-Baroque, nothing happens in a vacuum; each perspective is a concrescent nexus of earlier perspectives and it is infiltrated by other perspectives, making up another nexus. Whitehead describes this process in terms of experiences and feelings as can be seen in the quote above, but it is a panexperientialist definition of experience or feeling which, for him, is common to all matter. In fact, the relationship between the experience and the subject is inverted in his philosophy: It is not a pre-existing subject that feels or experiences the world of objects, but the pre-existing net of experiences (that he calls datum) gives rise to a subjective form with a novel experience. In a sense, this is Leibnizian metaphysics par excellence, in that Leibniz's philosophy defines the world as a network of perspectives which realizes subjects; however, it is a much more dynamic process than Leibniz's conception and assigns an active role to monads, which now need windows to make room for individuation and novelty (we should keep in mind that Whitehead developed his philosophy during high literary modernism when the concept of novelty was of great interest). The term Whitehead uses for such an open system of active individuation is *prehension*, which totally dispenses with dualities of mind/body, subject/object and phenomenon/noumenon:

A prehension reproduces in itself the general characteristics of an actual entity: it is referent to an external world, and in this sense will be said to have a 'vector character'; it involves emotion, and purpose, and valuation, and causation. In fact, any characteristic of an actual entity is reproduced in a prehension. It might have been a complete actuality; but, by reason of a certain incomplete partiality, a prehension is only a subordinate element in an actual entity. A reference to the complete actuality is required to give the reason why such a prehension is what it is in respect to its subjective form. This subjective form is determined by the subjective aim at further integration, so as to obtain the 'satisfaction' of the completed subject. (1929: 94)

Prehension can be simplified as the assimilation of the pre-existing experiential datum in a novel subjective form, when it is positive: The coming

together of certain elements to form a cell sensitive to light is a *prehension*, in which light is prehended by the new subjective form, which is then objectified in the experiential field of sight allowing for new subjective forms, including our eyes differing from one another in *how* each pair experiences vision – and *thisness* of each experience becomes a part of the experiential datum in the flow of existence. Of course, this is not the only way light is prehended: Our skin prehends it in its own way, plant life is built on a specific prehension of light, colour, circadian rhythm and water cycle in the ecosphere are other occasions of prehension, various light waves and rays are prehended by different subjective forms as in the case of the various effects of UV rays, and so on. But the thing is, none of these subjective forms can be abstracted from the prehended datum which *anticipates* them. This is the only way Whitehead can maintain Leibniz's harmony: An echo of a primordial noise, a detraction of light, a non-conscious perspective, a butterfly flapping its wings are all individual prehensions from the past which become the public datum at the present foreshadowing the future, and prehending the entire universe by degrees. Therefore, this is not a return to the hierarchy of forms, or forms in the traditional sense, for it is not only the pre-existing datum (such as the first light-sensitive cells) that is prehended in another subjective form which is to be prehended and objectified in another prehension – which does not lead to definitive forms in themselves, but the opposite is also true as there are also negative prehensions, which bring forth subjective forms not by assimilating the pre-existing datum but excluding it. In Leibniz's close system model of monads, any virtual world which diverges from others according to the principle of compossibility would be eliminated, whereas divergence now becomes one of the conditions for novelty:

The initial data constitute a 'multiplicity,' or merely one 'proper' entity, while the objective datum is a 'nexus,' a proposition, or a 'proper' entity of some categoreal type. There is a concrescence of the initial data into the objective datum, made possible by the elimination, and effected by the subjective form. The objective datum is the perspective of the initial data. The subjective form receives its determination from the negative prehensions, the objective datum, and the conceptual origination of the subject. (221)

On a second level, this means that the past also prehends the future, since a virtual event at the same spatio-temporal region (which is just a unit of distance) as

an actual event can coexist, bringing back Leibniz's principle of contingency which posits that singular reasons are not necessary, while also showing that processes can be reversible – not necessarily the way consciousness experiences time. Leibniz also showed that time was relational, and the lines of causality were multiple; however, he did not have a spacetime model to develop it further. He had founded infinitesimal calculus as the ancient formulas concerning the concept of points merging at infinity (as in Zeno's paradoxes) were not sufficient to explain how the universe was understood in the 17th century, but to the extent that his calculus allowed him to propose an aesthetic model, he had to assign, without violating his principle of continuity (at least claiming he did not violate it), a causality line to each monad, themselves not causally dependent. Pre-established harmony was his solution to explain why the world simply did not blow apart. We can observe, on the other hand, that new space models of the 20th century – such as Hilbert spaces for quantum mechanics and Minkowski spaces for special relativity, which indicate different rules of causality on each respective scale and are not mutually compatible to this day – required a new aesthetic paradigm which could locate impossible worlds in the same town. In other words, discord in this model becomes a creative component of harmony. Leibniz's orchestra was made up of a combination in which musicians played the individual piece that both reflected themselves best and resulted in the best harmony, even though individuals did not perceive other melodies being simultaneously played; in the neo-Baroque, each individual *does* perceive the rest of the orchestra and play accordingly, but the entire composition lacks a centre or a key, and a musician can play a piece exactly because it is discordant to the rest of the orchestra. It is what Schoenberg called “the emancipation of dissonance” in 1926 essay “Opinion or Insight?”, as Whitehead was writing his **Process and Reality**. This is a new take on synthetic perspectivism, but not a homogenizing one: It brings together impossible worlds to only drift them further apart thanks to the open system of prehension which can equally contain and exclude the pre-existing datum, instead of eliminating impossible worlds, which are now infinitely apart but also immeasurably close on this non-Euclidean plane: it is labyrinth upon labyrinth with

permeable walls that a subjective form can traverse in the process of becoming, “*The City & the City*” in Miéville's formulation. Whitehead retains God in his philosophy, but instead of Leibniz's theistic hand that picks the best of all possible worlds, it becomes the process itself in a more Spinozist sense. The transition is inevitable, because Whitehead's project itself is entirely focused on composing such a plane in which impossible perspectives and fields and knowledge can coexist – which is

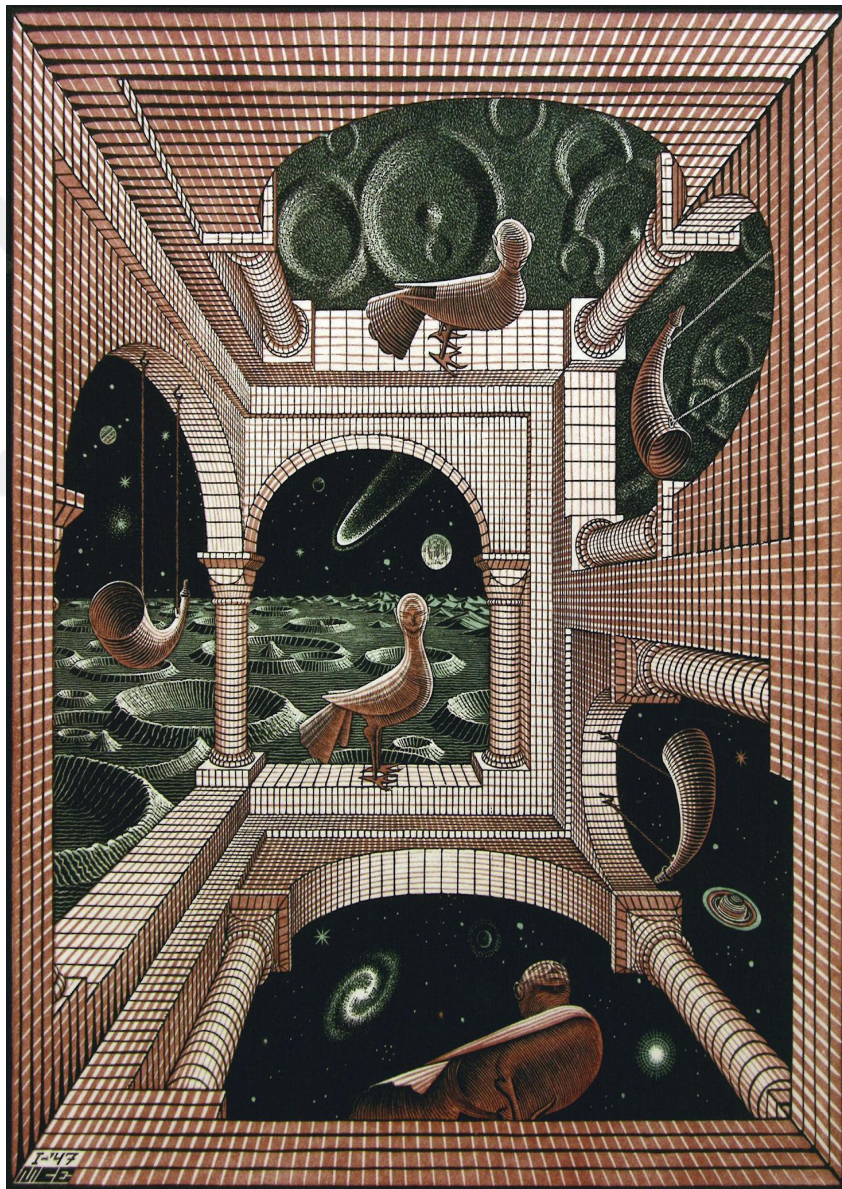


Figure 1.2: Other World by M.C. Escher, Wood Engraving (1947).
Source: M.C. Escher Foundation and M.C. Escher Company, <https://mcescher.com/>

why his Anglo-American colleagues and analytic philosophers disapproved of his later work. Nevertheless, this new world view is reflected in the early 20th century art, ranging from M.C. Escher's lithographs featuring impossible objects which problematize the paradoxes of perspective, to *the aesthetics of chaosmos* in Joyce which, as put by Umberto Eco, brings impossible worlds together, that of order and possibility, scholastic rationality and avant-garde expansion of verbal images, without resolving the tension (1989: 4). Eco's own semiotics and works of fiction draw on the same aesthetic paradigm, as his own acknowledgements and other studies repeatedly show, including Cristina Farronato's analysis of his 1994 novel *The Island of the Day Before*, which she considers as a baroque work (I would say neo-baroque due to its open structure), not only in its subject matter but also its conception of the reader:

Once again, the main character of Eco's story is a reader, an interpreter, only this time he is a baroque reader, who perceives the world through his baroque imagination and understanding. [...] The style of the narration imitates baroque writing, enriched as it is with numerous metaphors and similes. [...] The reader is therefore completely displaced in a myriad unreliable points of view, in the manner of baroque texts such as *Don Quixote*. [...] In a bigger world, in which the two hemispheres have opposite laws, and in a society that has learned to deal with simulation and dissimulation, humans are encouraged to use their wit as the new instrument of knowledge. [...] In this way, *The Island of the Day Before* becomes a baroque universe: 'Roberto learned to see the universal as a fragile tissue of enigmas, beyond which there was no longer an Author; or if there was, He seemed lost in the remaking of Himself from too many perspectives' (146). The baroque universe, like Eco's book, is a world without a centre, or, if there is one, it is the self of the reader, who is invited to find his or her own perspective in the myriad points of view (2014: 99-100).

1.2. *Star Maker* and Its Aftermath: A Perspective in Artificial Darkness

We can observe the traces of the neo-Baroque elsewhere: The 20th century phenomenology, modal realism, Lacanian and post-Lacanian theories of desire, even the revisionist studies within the Marxist thought which read it through Whitehead's philosophy (Pomeroy, 2004), just to name a few. It is even more pervasive in literature: Modernist examinations of the subject read like a neo-Baroque theory of essence, postmodernist historiographies reflect a neo-Baroque ethical effort, and so on. Indeed, it could be argued that art has always had the capacity of containing, complicating and explicating impossible worlds; however, the most blatant,

literal and extensive effort to imagine impossible worlds and embrace radical difference as such begins in science fiction with Olaf Stapledon, particularly his 1937 novel **Star Maker**, which at first glance follows the pattern of classical travel novels. According to Patrick A. McCarthy, Stapledon and H. G. Wells incorporated Jonathan Swift's mode of travel novels into science fiction (and later Ursula K. Le Guin developed the mode in her 1969 novel **The Left Hand of Darkness**), which can be summarized as a transforming journey to the Outside directed to change the Inside, as opposed to Daniel Defoe's line of travel that colonizes the inferior Outside based on the values brought from the Inside (1981: 266). We should also note that the Swiftian tradition as applied in science fiction has also spawned the escape narrative in which the Inside has become simply uninhabitable beyond hope or time for change, particularly for subaltern subjects, as in the case of the uploaded intelligent lobsters in **Accelerando** who just want to escape the tortures that humans inflict upon them, with no intention to colonize or change the extraterrestrial shelter they strive to settle in. Nevertheless, aside from this tradition, I am wary of calling Stapledon's **Star Maker** science fiction, novel, or even fiction because it seems to have no genre at all. In his preface, Stapledon states that **Star Maker** is not a novel, and that "judged by the standards of the Novel, it is remarkably bad" (1939: 9). It *is* fiction, we could indeed say, but this is not an easy matter, either, for he proposed *myth* as hybridization of mere history and mere fiction in his earlier major work **Last and First Men** (1930), which he defined as "an essay in myth creation," that is in turn a hybrid of two types of myth, namely *true myth* "within the universe of a certain culture (living or dead), [expressing] richly, and often perhaps tragically, the highest admirations possible within that culture," and *false myth* "either violently" transgressing "the limits of credibility set by its own cultural matrix," or expressing "admirations less developed than those of its culture's best vision" (9). **Star Maker** is his most radical exposition on this idea, an epic project to examine everything possibly imaginable (including the entirety of human species) which Stapledon, as a Marxist, thought was as important as actively fighting against the rising fascism in 1930s, and certainly a more profound strategy than propaganda in an era which

almost saw the collapse of the civilization (1937: 7). I would argue that myth is not the right word to describe the genre of his work, but as I will show in a moment, there is so much in the content of **Star Maker** that somehow borrows from language as we know, *for lack of a better word*, while imagining worlds beyond language, and this problem begins on the level of its genre. However, such ambiguity is quite fruitful for my discussion, because **Star Maker** can be seen as an interface between philosophical texts I have touched on up to this point, and post-Singularity fiction I will examine in the following chapters. In other words, as a theoretical/philosophical text, it is essentially neo-Baroque, and as a fiction, its inventions within such neo-Baroque aesthetics foreshadow post-Singularity fiction. Therefore, even though my study is not about Stapledon's fiction, it holds a prominent place as a theoretical and literary precursor for the primary works of my study.

Once again, this begins with what Stapledon considered the mythical aspects of his work, some of which are the reason that his work has received criticism from his orthodox Marxist readers for decades, though he strategically included them as he believed partisanship was the social peril of his era. Paradoxically, one of the major so-called mythical aspects of **Star Maker**, namely the use of an academic, scientific and dispassionate style, which unifies the narrative (and this is the only collective aspect imagined to reflect the truth of the culture through which the work emerges as a myth), is what makes the work one of the key texts in science fiction, while undermining the assumptions of the genre as we know today: A disembodied narrator who dives into a Dantesque journey that spans innumerable light years and epochs of stars into the future through one eternal perspective which makes the invisible (or that which has been rendered invisible by cultural capitalism) visible, paradoxically serving as a mechanic eye *à la* Soviet director Dziga Vertov's *cine-eye*, not only as an observer but also the part of the natural elements, artificial objects and the infinite cosmic mind in which it is situated to extract a holistic truth out of them, progressively *prehending* impossible perspectives that accumulate into a collective mind and constitute the neo-Baroque subject par excellence: “It was a strange experience to enter the mind of an intelligent ship,” says the narrator,

explaining the nautiloids, a species of intelligent ship living on a water planet, “to see the foam circling under one's own nose as the vessel plunged through the waves to taste the bitter or delicious currents streaming past one's flanks, to feel the pressure of air on the sails as one beat up against the breeze, to hear beneath the water-line the rush and murmur of distant shoals of fishes, and indeed actually to *hear* the sea-bottom's configuration by means of the echoes that it cast up to the underwater ears” (1937: 92). This is a Spinozist concept of perspective which, as discussed, is one fluctuating line containing the whole of existence, but it is here mixed with the dialectic of industrial progression and entropy, the succession of which drives the journey towards new life forms getting more and more non-anthropocentric, also inorganic, all the way to the life of stars, across the passage of inconceivable temporal distances, rather than mere human history. Each impossible world has its own set of rules, communication network, economic development, system of senses which transcend our own cultural production. At the same time, each alien life form embodies a different social formation we can possibly imagine, individual, collective or symbiotic, including their utopian and dystopian variations, usually expressed in the lifetime of each given alien civilization, eventually producing its own industrial crisis, class exploitation and hierarchy: The asexual symbiotic life of vegetarian “fish-like creatures, which I shall call 'ichthyoids',” and carnivorous “crab-like or spider-like 'crustaceans', which I shall call 'arachnoids',” possessing a form of relationship beyond the scope of any human relation (104-6), the bisexual collective life of “mobile minded clouds of little birds” with a mental “unity of a complex electro-magnetic field, in fact on 'radio' waves permeating the whole group” (115), the “dual” life of plant-men who spend the daylight in a vegetative state experiencing “an enduring ecstasy whose quality was almost sexual, an ecstasy in which subject and object seemed to become identical, an ecstasy of subjective union with the obscure source of all finite being,” and at night “fold up his leaves, close the passages to his roots, detach himself, and go about the business of civilized life” (126-9), just to name a few. The *mythical* aspect of the work, or the assumption that all the mysteries of existence (and everything imaginable) can be unified by

scientific rhetoric, then, results in a chain of multiversal artwork. Accordingly, the multiverse which emerges from the Spinozist/mythical perspective is quite Leibnizian, but clearly with a neo-Baroque twist: As it turns out, the so-called God of the work, the Star Maker, is an aspiring artist, no more a Leibnizian God who chooses the best of all possible worlds, but an evolving God who indifferently experiments with one universe after another, initially appalled by the seemingly independent behaviour of his creation and the potentiality of these universes to violate causality; such is the neo-Baroque conception of infinity as was the case in Whitehead. The narrator, having merged with infinity and transcended history, is able to see our own universe as one artwork among many others, each having its own peculiarity in the multiplicity of creation. For example, one such universe comprises entirely of music, immaterial music with a life on its own independent of any sound source, transmission medium or a receiver, and below is the entire passage which highlights the specifics and fate of this universe, as well as the nature of the Star Maker, and the cyclical concept of time that seem to operate in many of the universes:

Thereafter, cosmos upon cosmos, each more rich and subtle than the last, leapt from his fervent imagination. [...] In a later creation, certainly, true life broke out most strangely. This was a cosmos which the Star Maker apprehended physically much as men apprehend music. It was a rich sequence of qualities diverse in pitch and in intensity. With this toy the infant Star Maker played delightedly, inventing an infinite wealth of melody and counterpoint. But before he had worked out all the subtleties of pattern implied in this little world of cold, mathematical music, before he had created more than a few kinds of lifeless, musical creatures, it became evident that some of his creatures were manifesting traces of a life of their own, recalcitrant to the conscious purpose of the Star Maker. The themes of the music began to display modes of behaviour that were not in accord with the canon which he had ordained for them. It seemed to me that he watched them with intense interest, and that they spurred him to new conceptions, beyond the creatures' power to fulfil. Therefore he brought this cosmos to completion; and in a novel manner. He contrived that the last state of the cosmos should lead immediately back to the first. He knotted the final event temporally to the beginning, so that the cosmical time formed an endless circlet. After considering his work from outside its proper time, he set it aside, and brooded for a fresh creation.

The theme of art, then, is an essential aspect in Stapledon's neo-Baroque aesthetics; however, as I mentioned earlier, and as Stapledon himself expected, this is the reason it receives criticism from orthodox Marxist readers, for it seems to challenge materialist readings of science fiction. After all, science fiction ultimately

examines interpersonal relations, physical conditions and surmountable social problems, while Stapledon's aesthetic framework exposes its human subject to the Absolute beyond historical limits. This is exactly the objection raised to Stapledon by Charles Elkins, who aptly puts forth the question "how is it that Stapledon can arrive at this Leibnizian perspective," and answers thus: "Because he has converted a world unfolding in time (i.e., history) into a static work of art. Not only does his metaphor for his perspective, the tragic vision, suggest an esthetic framework, but he views creation as a work of art in the same order as a piece of music or painting (1980: 148)." Indeed, art is a central theme in **Star Maker**, but I am perhaps not the only reader of Stapledon who, upon Elkins' remarks, thinks of the question why Stapledon views creation as a work of art in the same order as a piece of music or painting but not, for instance, perfumery, gastronomy, or even radiology and haptic technology. This is a serious question, considering the context in which Elkins raises the centrality of art in relation to myth to criticize Stapledon: For Elkins, Stapledon muffles his own struggle against the rising fascism and class inequalities by positing a mythical vision which, due to its inconceivable spatio-temporal scope, dwarfs the actual problems we have to face; more importantly, the conception of the universe as a static work of art makes historical change impossible, and perhaps unnecessary, for any historical condition is infinitesimally minute in the cosmic order of things (1980: 150). It seems to me that such interpretation is exactly what Stapledon had in mind when he said the Right would feel perverted due to excessive sexuality and the apparent rejection of moralism in **Star Maker**, while the Left would "misconceive" it (1937: 9). It is clearly a misconception, because the enormous spatio-temporal scope of the work is not literal; Stapledon did not actually believe in transcendent absolutes, neither did he make the statement that our urgent crises were but a crumble in the infinity of creation. In fact, the entire point of his work is the opposite of this view: "And perhaps the attempt to see our turbulent world against a background of stars may, after all, increase, not lessen, the significance of the present human crisis" (1937: 8).

To understand how this is possible, and how such a misconception can be

avoided, I should turn back to my earlier statement that Leibnizian thought initially seems to stifle the subject amidst the infinity of perspectives, or in the infinite truth of the world of objects, while it constitutes only half of his cosmology. The same dynamics is at work here: Stapledon does not muffle the actual present in the infinity of spatio-temporal existence, but conceives an infinite mode of existence in the fulcrum of the actual present. Furthermore, within the neo-Baroque paradigm, the work brings impossibles together, distancing itself from the present on a macroscopic scale in order to grasp it up close, without excluding any of the other universes in question or falling back to theodicy. The present is not merely an infinitesimal speck of impotence in the totality of being, but an infinitely intense field of potentiality which allows us to imagine what human senses have yet to experience, and all the other worlds or works of art mentioned in the work belongs to the present. Far from making the change impossible, it resists the ideologies and philosophical traditions which claim that change (or novelty) is impossible, or that we cannot imagine alternatives beyond our historical experience. It is in this context that I say “why not, for instance, perfumery” to counter Elkins' contention that Stapledon views the creation as a static work of art in the same order as a piece of music or painting, because one of the most blatant statements **Star Maker** makes is that the audiovisual sensory dominance of our species is one of the major limiting factors in the way we perceive the universe, construct reality and realize our allopoietic powers, including artistic creativity. It is no surprise that the cultural network of the inhabitants of the very first world (simply called *the Other Men* and *the Other World*) to which the narrative of **Star Maker** travels is based on one change in their biological make-up: Unlike us, their sensory organs have evolved to be olfactory-gustatory dominant much like carnivorans, and as a result, “music, such as we know, never developed in this world” (38). The first alternative perspective and the most detailed one the narrator comes to acquire is therefore colour and tone deaf, even though sensory neurons of smell and taste are distributed in the entire body, limbs and genitals in a more developed form than our auditory and visual perceptions (which, as we know, are not superior to many other species). *The Other*

World is a complex semiotic system in which language, the concept of race, individuation, ideas on God, the media, art, social classes, behavioural literacy, ideologies, manipulation of truth, sexuality, and technological progress entirely depend on production and consumption of morphologies of smell and taste. It is of course possible, this early in the work, to view such perspective as an allegory, or at least a satiric commentary on the anthropomorphic nature of our truth-values that Stapledon deconstructs through the well-studied effect of cognitive alienation, showing that any scientific method or technological progress inevitably leads to destruction unless we firstly see beyond our limitations and challenge our narrow vision of the world. However, from its aesthetic perspective, even this most accessible and most anthropomorphic world demonstrates that we should be wary of thinking merely in terms of *music* and *painting* even if we insist that Stapledon views the universe as a *static* work of art, because such *stasis* would have to contain innumerable forms of art beyond our scope, not to exclude our audiovisual existence but to challenge its hierarchy; can we imagine pieces of music or painting we cannot hear or see, can we imagine new scents, flavours, textures, feelings, percepts, or even senses totally alien to us? The novel moves from the status of satire and evolves to explore these questions, attempting to contain an infinite mode of existence. As I will mention in a moment, the perspective of the novel is mostly produced in darkness beyond what human eye can see, and as I stated earlier, much of its content borrows from human language *for lack of a better word*, all the more complicated with the fact that the conveyed experience is dimmed by the narrator's memory (and that is why scientific rhetoric of the novel often resorts to childish expressions), which is apparent in the communal mind of which the narrator becomes a part:

Human speech has no accurate terms to describe our peculiar relationship. It would be as untrue to say that we had lost our individuality, or were dissolved in a communal individuality, as to say that we were all the while distinct individuals. Though the pronoun 'I' now applied to us all collectively, the pronoun 'we' also applied to us. In one respect, namely unity of consciousness, we were indeed a single experiencing individual; yet at the same time we were in a very important and delightful manner distinct from one another. Though there was only the single, communal 'I', there was also, so to speak, a manifold and variegated 'us', an observed company of very diverse personalities, each of whom expressed creatively his own unique contribution to the whole enterprise of cosmical exploration, while all were bound together in a tissue of subtle personal relationships. (1937: 134-135)

Such infinite mode of existence is actually the Foucauldian concept of resistance: Stapledon's narrator travels to the absolute Outside in order to bring it back to the heart of London. If there is an Absolute in this world view, it resides deep inside the subject, albeit unrealized in the network of power-knowledge systems which we think is the only possibility. This strategy *endows* "Marxism with its appropriate metaphysic," states Jameson, considering **Star Maker** a Leibnizian work in the sense that cyberpunk is, insofar as it produces a plane of radical difference (2005: 125). However, for Jameson, the work remains baffling for the orthodox Marxist reader because centrality of art as such is quite a unique case from the perspective of utopian fiction, which emerges as an artwork from the absence of utopia in the actual present while the world vision it posits usually lacks art, whereas this is quite the opposite in Stapledon: "It is a situation which reverses Ernst Bloch's interpretation of the absent work of art at the center of the artist-novel as a hole in the present which marks the place of a Utopian future to come. With *Star Maker* we have the work, and only its Utopian social context is missing" (Jameson, 2005: 125). What I would add to Jameson's analysis is that **Star Maker** also reverses the dynamics of allegory, for it is the actual present, not the peculiarities of the fictional multiverse, which the novel uses as an allegory to convey the narrator's experiences to the reader: Even music, for instance, is just the closest thing the narrator can think of as a metaphor to describe one of the toy universes of the Star Maker, which is then extended according to human vocabulary that becomes the language of allegory, leading to a reversed situation in which the dystopian social context is also missing – alongside the conditions of the actual crisis of humanity now allegorized within the fictional chaosmos, which is why the work is often criticized for not taking actual history seriously, while it in this sense that **Star Maker** is an open neo-Baroque work to be contextualized by the reader. The fictional worlds (or, in Whitehead's terminology, *events*) of **Star Maker**, in other words, are copies without an original model, so is the actual present (also an event) which can allegorize itself in relation to it, and the effort to bridge the two is what Stapledon calls *an essay in myth making*, which resembles neither of the universes-events it drives to communicate;

the only representational content corresponding to the form of the work is the theme of symbiosis. Such is the aesthetic structure of the artwork Jameson refers to: A clash of differences (not merely of opposing identities) through a medium of differentiation, creating a differential and neutral process simultaneously lacking a utopian social context and erasing the conditions of dystopia.

This structure is in several respects the literary precursor of post-Singularity fiction, which also relates the reader to the Absolute, the difference being that the Absolute is not sought after in the outer space in post-Singularity fiction, but emerges as the logical consequence of technological progress of the actual present, which is a postmodern twist so to speak, with the influence of the New Wave movement of the 1960s and 1970s. However, post-Singularity narration is too detached and *objective* to be viewed as essentially postmodern; in this sense, it is a Stapledonian narration, which differs from the so-called objective modes of literary narration in that it is conscious of the mythic aspect of the scientific rhetoric with which it bridges impossible worlds that cannot otherwise communicate. As I mentioned, the distant and apparently objective stance of the narrator in **Star Maker** is both a statement against fundamentalism and a literary strategy that lets the represented universes and the human voice get ultimately close to the point of cosmic fusion, while post-Singularity fiction borrows such strategy as a medium of translation between the actual present and the post-human future. Here we should introduce a staple motif in post-Singularity fiction borrowed from Stapledon as another reason as to why such a shift from the postmodern modes of narration occurs, not for a nostalgic return but an aesthetic necessity issuing from the very perspective Stapledon was trying to achieve, that is, a perspective not merely constrained to the audiovisual sensory dominance of our species. This does not only concern the alternative species Stapledon's fiction is able to imagine, or the fact that the narrator's journey across space and time occurs mostly in darkness; it is the first work of literary fiction that details *artificial darkness* on a galactic scale, through hypothetical mega-structures Stapledon originally called *light traps*, which are now known as *Dyson spheres*, built around a star to capture (or, in Whitehead's terms,

prehend) its power output, named after theoretical physicist Freeman Dyson who borrowed the concept from **Star Maker** (1960), although the term light trap is a better choice at this point of our discussion as it describes the structure for what it is.

In **Star Maker**, Stapledon conceives light traps as an apocalyptic scenario, once earlier in the novel as a sign of arachnoids' deterioration towards individualism away from the wiser but less practical ichtyoids during their colonization of space, later as a part of a larger project that captures solar energy for *intelligent use*. Even though it is the first work to use the theme of artificial darkness in this context, the theme itself does not begin with Stapledon; we can trace it back to the introduction of monochrome painting in the late 19th century, which appeared as a satirization of the limitations of realistic art, and not devoid of racist jokes (e.g., Paul Bilhaud's 1882 painting titled "Negroes Fighting in a Tunnel at Night"). It can be observed in the early 20th century visual arts, including pantomime, drama, cinema and dance, in many cases as a reaction against the Enlightenment (Elcott, 2016: 182). We should note that Stapledon's fiction still relies on the dichotomy of light and darkness, it cannot see past the cycle of creation and destruction. Therefore, Stapledon imagines light traps to destroy them; in the second case below, the landscape is once again *illuminated* by the succession of explosions bringing the depicted galaxy to its end:

This whole vast community looked now beyond itself towards its fellow galaxies. Resolved to pursue the adventure of life and of spirit in the cosmical, the widest of all spheres, it was in constant telepathic communication with its fellows; and at the same time, conceiving all kinds of strange practical ambitions, it began to avail itself of the energies of its stars upon a scale hitherto unimagined. Not only was every solar system now surrounded by a gauze of light traps, which focused the escaping solar energy for intelligent use, so that the whole galaxy was dimmed, but many stars that were not suited to be suns were disintegrated, and rifled of their prodigious stores of sub-atomic energy. Suddenly our attention was held by an event which even at a distance was visibly incompatible with Utopia. A star encircled by planets exploded, destroying all its rings of worlds, and sinking afterwards into wan exhaustion. Another and another, and yet others in different regions of the galaxy, did likewise. (1937: 186-187)

The theme has been revisited many times in science fiction since the publication of **Star Maker**, Le Guin's 1969 novel **The Left Hand of Darkness** being perhaps the most renown of them for offering, in its travel narrative à la Stapledon, a Taoist balance between darkness and light as opposed to the hierarchical view of the western culture. However, post-Singularity fiction totally strips darkness off its

metaphorical associations: Not as a metaphor of death, ignorance, invisibility or

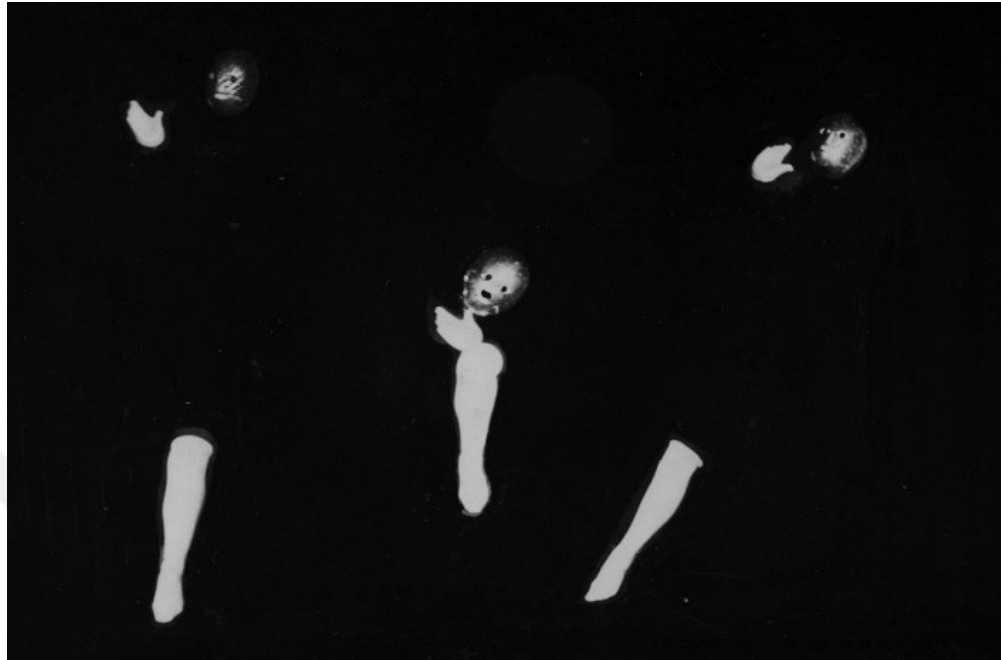


Figure 1.3: Manda von Kreibitz in Oskar Schlemmer's "Limbs or Illusion-Dance" (1928).²

Source: Noam Elcott, 2016: 190. Retrieved from Bauhaus Archiv Berlin

silence, but as a common, actual fact shared by the writer, characters, and the reader, artificial darkness becomes a field of experimentation, which can nevertheless reproduce any phenomena we associate with light and beyond. Needless to say, Stapledon's light traps are one of the essential motifs in post-Singularity fiction, because technological singularity by definition refers to a radical shift in the parameters of our civilization, a shift from type I to type II civilization on the Kardashev scale, which classifies technological advancement according to the amount of energy they can store and use (Kardashev, 1964). In other words, a post-Singularity setting would be able to use the entire solar energy (as opposed to our planetary civilization that relies on the energy available on the Earth), and there is currently not a more efficient hypothesis than Dyson spheres for such a scenario to

² According to Noam K. Elcott, Schlemmer was one of the first artists to examine the machinic aspect of the human body, in relation to the machinic aspect of space, both immersed in artificial darkness, as a means of challenging the Enlightenment as well as solipsist world views of avant-garde artists of his era.

be possible, neither is there any other way for technological progression to be propelled beyond human control, which requires more energy than our planet can provide. The problem with these structures from the perspective of visual arts, however, is that they are not representable; in fact, they render the entire system around them unrepresentable, which is why current illustrations and animations of Dyson spheres can only depict them as translucent structures, or right before their completion so that light can still escape, or with an external source of light (e.g., against the background of other stars), while a true close-up representation of them would look like Kazimir Malevich's "Black Square", and the 1913 Russian futurist opera titled **Victory over the Sun** for which Malevich designed his first black square describes the situation properly; that is why the term *Dyson sphere* would be just a poor euphemism if we forget that post-Singularity fiction is built around *light traps* teeming with life and the setting is mostly black, which makes its most variations unfit for cinematic representations.



Figure 1.4: An impression of a Dyson Shell under construction
by Danielle Futselaar of SETI

Source: Brandon Wiegel, **Our Space**, 2019

It is at this point, I think, that post-Singularity fiction points out to the past (i.e., Stapledon's objective narration) in order to move *beyond* the neo-Baroque

aesthetics, of which many modernist and postmodernist narrations – and to a degree, even post-Singularity fiction itself – are a part. I specifically refer to the conspiratorial/paranoid character of these narrations, not necessarily in a clinical sense but in terms of the dismantled subject's encounter with the world of excessive signification, with an overwhelming labyrinth of audiovisual and verbal images which can no longer provide the normative plane of knowledge and meaning, or even the illusion of it. We could demonstrate this prevalent aspect in hundreds of works in the 20th century fiction, but for the sake of chronology and the aesthetic paradigm we have been tracing, Borges is perhaps the most relevant figure as a self-proclaimed writer of the Baroque whose debt to Stapledon is well documented (Moran, 2012). His aesthetics includes infinite labyrinths which bring impossible worlds together as one major plot/conspiracy with every fraction of it being a fractal simulacrum of the whole that can be hypothetically contained at the spectral centre, the concept of existence as a murder scene, the tracing of which brings the demise of the scholar/detective at the centre of discovery, where the key to solutions is aleatory, the other side of the complex mystery is the most ordinary and comical succession of random events, and the connections are purely mental projections. In his preface to the 1954 edition of his collection **A Universal History of Infamy**, he offers a definition of the Baroque as follows, before he uses the term to define his own work:

I would define the baroque as that style that deliberately exhausts (or tries to exhaust) its own possibilities, and that borders on self-caricature. In vain did Andrew Lang attempt, in the eighteen-eighties, to imitate Pope's *Odyssey*; it was already a parody, and so defeated the parodist's attempt to exaggerate its tautness. '*Baroco*' was a term used for one of the modes of syllogistic reasoning; the eighteenth century applied it to certain abuses in seventeenth-century architecture and painting. I would venture to say that the baroque is the final stage in all art, when art flaunts and squanders its resources. The baroque is intellectual, and Bernard Shaw has said that all intellectual labour is humorous. This humour is unintentional in the works of Baltasar Gracian, but intentional, even indulged, in the works of John Donne. (1999: 4)

The contemporary consequences of such exhaustion are enormous: An explosion of paranoid narratives, volumes of mock-detective fiction, incessant postmodern parodies, an infinite chain of ruptured hypersubjectivities in search of one object of fetish after another are all familiar to us today. But what if the Baroque becomes our reality, not just an artistic style, but a strategic tool of reproduction of

reality as an infinite labyrinth teeming with conspiracies, of manufacturing controlled zones of freedom with a tint of insecurity where the subject perpetually seeks freedom, happiness, security and truth among the spiral of information and tools of simulation offered by late capitalism, the greatest conspiracy of all? What if popular media and contemporary regimes of political economy absorb the revolutionary neo-Baroque tales, as in the case of post-colonialism in Borges and later historiographic metafiction replaced by the multiculturalist kitsch that constitutes our reality, in which we can now imagine the consumer-friendly faces of modern authorities sing Shakespearean and Yeatsian tunes, celebrating that time is out of joint and the centre cannot hold? Is the only alternative a niche of pure exhaustion, a slightly flickering scale of dim light in which even exhaustion has been exhausted to the extent that it now suffocates all possible worlds, insomnia has taken over, one perspective has become as valid (or repulsive) as any other, sleep has become a dream image in a limbo that makes wakefulness, sleep, daydream, false awakening, hallucination and reality indistinguishable, and we have become too exhausted to even take a rest, as in Samuel Beckett's last television play **Nacht und Träume**? Or is it the other way around; have we been offered only a fraction of false possibilities all this time, and was exhaustion a premature one? These questions should be thought alongside the threshold science fiction crossed in the 1980s as I mentioned earlier, as they have been frequently revisited in the view of information technologies, cybernetics, nanotechnology, artificial intelligence, genetic engineering and synthetic biology across various subgenres since the 1980s, which I consider as a specific domain within the artistic quest for a new ethico-aesthetic paradigm. Post-Singularity fiction is an early 21st century take on the condition, an attempt to exhaust the possibilities of technology until *lights are out*, so to speak, and examine the conditions in darkness which still allow us to go on, even though it is too alien for us to go on. In this sense, the seeming objectivity of narration that takes the reader to Singularity and beyond is highly ironical as it demands the complicity of the reader in the exhaustion of our present info-capitalistic possibilities, and it is in this sense that the scenario only works as a fiction, rather than a futuristic or technophobic statement.

1.3. Singularities of the neo-Baroque and the Dark Precursors of Singularity

Before I get to the specifics of post-Singularity fiction and the literary use of technological singularity, I should take a step back and say a few words on the term *singularity* as applied in the late 20th century neo-Baroque philosophy to take the paradigm that I have traced from Leibniz to Whitehead and Stapledon one step further, since it concerns the issue of difference and the ethical aspect of the neo-Baroque aesthetics which anticipates the literary genre of our analysis. Originally, in mathematics, singularity refers to a point at which a mathematical object, equation or a surface acquires a deviant property, becoming *pathological* (i.e., ill-behaved or undefinable) in mathematical terms (Knopp, 1996: 118). *Degenerate* cases, for instance, are singularities, such as degenerate triangles which are contained in a one-dimensional line, making them qualitatively different from the rest of regular triangles which are two-dimensional. Poles on a sphere are coordinate singularities, because they are the points at which longitudinal degrees disappear; if we followed along longitude zero towards a pole, we would abruptly find ourselves on longitude 180 past the pole, whereas the pole itself is the undefinable singularity. Differential geometry and algebraic geometry study such conditions where a surface contains multiple points, tangents become undefinable, or manifolds become degenerate, as in the case of a three-dimensional origami piece superimposed on a two-dimensional space, which makes it a manifold and not a manifold at the same time, or the projection of three-dimensional objects into a two-dimensional image (e.g., through refractions of the eye, or an envelopment of light rays on a reflecting manifold screen, as in caustics). Specifically, it concerns the fields of study on sudden and unpredictable shifts in behaviour, structure or qualitative property of dynamical systems, such as an earthquake or landslide; *catastrophe theory* is the analysis of four-dimensional equilibrium surfaces and possible discontinuities issuing thereof,

classified as stable structures around singularities, or undefinable/degenerate points (Zahler, 1977: 759-63). Salvador Dali's 1983 painting "The Swallow's Tail – Series of Catastrophes" depicts one such structure, namely swallowtail catastrophe, the unfolding of three bifurcating surfaces and two cusps at one singular point (von Seggern, 1993: 94).

It must be noted that these are all mathematical constructs not observable in physics, with the exception of certain phenomena that might become unstable in theory; for instance, absolute zero temperature on the Kelvin scale is kind of a singularity, not only because it is impossible to achieve, but the enthalpy-entropy equilibrium would be broken down and reversed at and below the absolute zero, making *negative temperature* hotter than any positive value (Kittel and Kroemer, 1980: 462), as it has also been confirmed by recent experiments (Schneider et al., 2013: 52). The reason that we cannot know the temperature of black holes is exactly

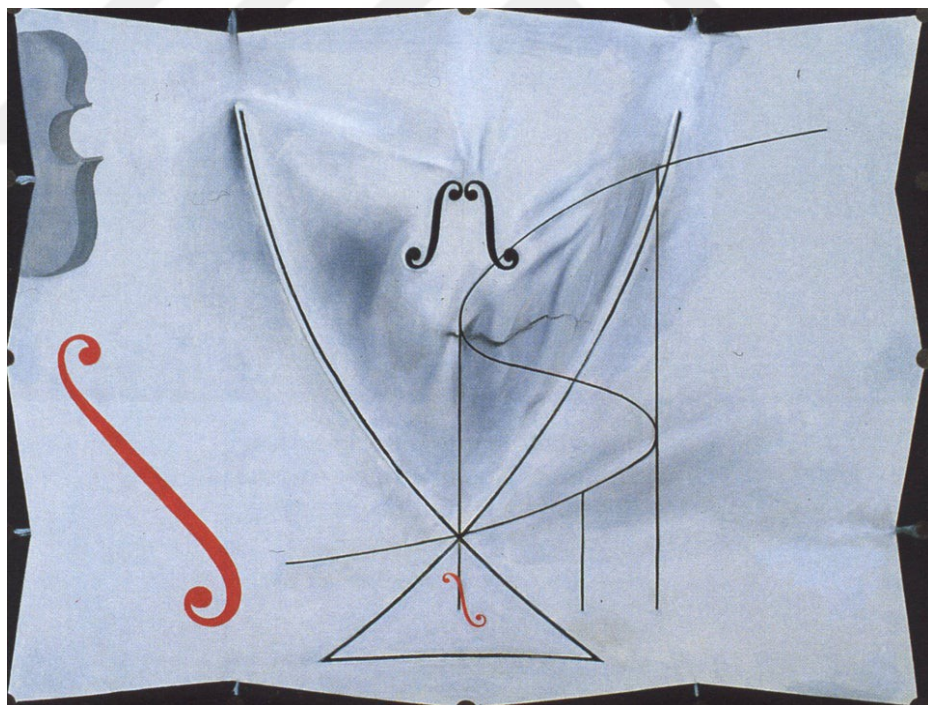


Figure 1.5: The Swallow's Tail – Series of Catastrophes by Salvador Dali (1983).³

³ In Dali's interpretation of swallowtail catastrophe, the tip of the bottom triangle represents the point at which three surfaces and two cups collapse (or three surfaces and two cusps unfold from that point), while the point itself belongs to all and none, making it a mathematical singularity. One

related to this problem: *Gravitational singularity* – which refers to a point at which the gravitational field of a body (such as a black hole) is infinite, if exists – creates an infinite curvature in spacetime and disrupts the laws of the universe as we know, which means the temperature can reach the absolute zero, and possibly below that, indicating that we can encounter infinitely hot temperatures at the very points of the universe we calculate to be the coldest. In other words, for physicists, singularities are just symptoms of a defect in theory that must be overcome. It is like the division by zero, which is a mathematical singularity, but in physics, that we cannot know what happens beyond *the event horizon* (the uppermost limit where the laws of spacetime are still not pathological) is a problem which theoretical physics attempts to surmount by still resorting to space models allowing mathematical singularities to occur, such as the string theory that contains orbifolds with points of singularity (Hořava, 1996: 506). The problem concerns the genesis of the universe as well: According to the standard Big Bang model, if we reverse the expansion of the universe, we reach a singularity at which density is infinite and spacetime does not exist as we know it. Stephen Hawking's famous statement that the question what preceded Big Bang makes no more sense than the question what is north of the North Pole would not pose a threat for the mathematical concept of singularity, but it is a problematic dismissal for other physicists, who have offered many alternative models to date. One of those proposals is that the pre-Big Bang state was a false vacuum bubble (called de Sitter bubble), and our universe is just one outcome of energy discharges, or decays of such states (Smeenk, 2006: 225). We can think of the concept of false vacuum as an elevated water tub, the ground of which feels like the lowest point for the organisms in it; however, the seeming stability is only a *metastable* state, and at any point the tub can break down and leak onto the *true* ground (i.e., true vacuum), flooding the entire house and becoming *truly* stable, as

of the cusps is represented as a large S shape, while the other is the horizontal line at the centre. A cusp refers to the curve introduced to the point of singularity of a fold, or the point of bifurcation where a stable line becomes unstable, shifting its parameter; and the cusp introduced to this singularity turns back on itself. The curves, cuts and corners of the cello image, as well as f-holes or J symbols, are Dali's further aestheticization of the mathematical catastrophe.

we believe our universe to be. While this model allows physicists to speculate on a mathematically possible precedent of the observable universe – even though spacetime would still seem to have emerged at the point of the discharge, the problem is that false vacuums are hypothetical just like singularities, and there is no reason they would not exist in the universe if that is what caused the universe to emerge in the first place, just like the universe can hypothetically contain singularities (that is, if the universe itself is not a false vacuum, and the apparent stability is not in fact metastable). It has been suggested, for instance, that Higgs boson, which is thought to be the universal substance giving all of us our masses, might be in a false vacuum state, and at any moment it can bring the universe to its end (Markkanen, Rajantie, and Stopyra, 2018). If that were the case, ironically, the paradigm shift would be the subject of singularity and catastrophe theories in mathematics, but we would be gone before we could outline its model, as the decay would spread at light speed, rendering it unobservable.

I deem this brief introduction of singularity in mathematics and physics necessary, not only because its philosophical use which we will now turn to is borrowed from these fields, but also to avoid romanticization of the concept, for the general tendency in the scholarship of postmodernism is to clamp Foucauldian analysis down to claustrophobic critique of power relations, while celebrating the following neo-baroque paradigm (which reads like the elaboration of the field of resistance) as the flip side of the coin, an affirmative Dionysian revelry. It is evident that the term singularity has negative connotations albeit in mathematical terms, such as degeneracy, catastrophe, pathology – and we could extend the list further with mathematical objects and fields associated with singularity, like perverse sheaves and decomposition theorem; any philosophical or artistic system that borrows such a term as a key concept should be kept immune to pure joy or affirmative naivety. Post-singularity fiction itself strategically calls the bluff of the capitalistic fantasy of unbounded technological progression, which can be viewed as an apocalyptic scenario for humanity, pretends that there is no problem this fantasy cannot solve, and brings it to its logical end while biological subjects are irreversibly (and

voluntarily) modified and, in a sense, swallowed by the black hole of technological Singularity, nevertheless emitting the radiation of resistance as a remnant or a by-product.

In simplest terms, *singularity* in philosophy in the second half of the 20th century replaces Leibniz's monads and Whitehead's actual events, with a redefinition of existence based not on identities but difference as such. In other words, what has come to be viewed as divergences, pathologies, perversities and exceptions in an otherwise well-behaved rules of being are in fact norms on a neutral plane of difference which can bring forth catastrophes as well as life and novelty. In this sense, there is nothing remarkable about singularities at all, but they are the virtual (and *pre-individual*) conditions of remarkability of things which are actualized when they enter a relation of forces, express/generate a quality in themselves, cross a threshold or produce a *haecceity*, after which they can be inferred, identified and formulated. It is through singularities that the neo-Baroque paradigm obtains a purely materialist quality, for they dispense with Kantian notion of the inconceivable thing-in-itself and the principle of sufficient reason: Form is no more an ideal applied to substance from without, but the self-expression of matter through pre-individual singularities without a reason or a requirement for God or Man, and their (in)conceivability is indifferent to thought. Singularities are thus differential aspects of matter, subject and object alike, interacting with other singularities and resulting in further difference: The singularity of "I," for instance, does not resemble and cannot represent the pre-individual singularities preceding it, as identity and resemblance are the effects of difference, and not its cause.

It was Deleuze who turned the term into a philosophical concept in the 1960s, not in the least to oppose identity politics which he believed would result in homogenization, a tool of further oppression in benign forms, organized around order-words in the form of communication while, following Leibniz, he thought communication between true differences was impossible. The fields of aesthetics, ethics and (later in his career) politics are indistinguishable in Deleuze's work, therefore, it is hard to say which one is the cause of the rest – if any, but my

discussion concerns the aesthetic aspects of singularity, for which Richard Dawkins criticized Deleuze as his philosophy imposes new contents upon the mathematical/physics term, by stating that “the late Deleuze” following his collaboration with Félix Guattari acquired an intellectual style that ignores content (1998: 141). Dawkins' criticism, which is a part of his review on Alan Sokal's and Jean Bricmont's attack on postmodernist philosophers, reflects certain natural scientists' attitude towards Deleuze, and on a deeper level, the major discrepancy between natural and social sciences; while Deleuze's earlier academic monographs on the history of philosophy are relatively respected, his later collaboration with Guattari is looked down upon primarily because Guattari is not an academician, and their co-authorship strategically takes on a fragmented, abstract and overtly political style. The same criticism prevails even in the field of academic philosophy as can be seen in the works of Alain Badiou. However, in the case of singularities, Richard Dawkins makes a hasty chronological mistake in his sources – as do Alan Sokal and Jean Bricmont in their failure to understand Deleuze's deliberate revocation of antiquated terms in order to formulate new philosophical concepts: Singularities occur in Deleuze's earlier academic works, and he clearly states that his treatment of the term is more grounded in fiction and arts than mathematics and physics, since it is in artistic creations that pre-individual singularities and non-representational difference (even in repetition) can be best expressed, as peculiar affects and experiences, while philosophy conceptualizes these to denote a problem and not, actually, to ponder upon or describe them, and science creates functions which are not given. In fact, he considers his own work as a type of science fiction influenced by Samuel Butler, one of the first people to examine artificial intelligence, whom Deleuze considers to be a precursor to Whitehead in the English neo-Baroque tradition, for uprooting the personal unity of biological subjects and the structural unity of machines, by showing the reciprocal complexity of the biological and the inorganic, both possessing their own singularities expressed in his fictional medium which appears to be both its own sign and meaning (as distinct from Victorian society, whose production of sense is nevertheless laid bare while the fictional-

linguistic ground of nonsense is displaced and disguised), at the same time satirical without being neither a true utopia or mere dystopia, but might nevertheless be apocalyptic for the assumptions of Man:

Following Samuel Butler, we discover *Erewhon*, signifying at once the originary 'nowhere' and the displaced, disguised, modified and always re-created 'here-and-now'. Neither empirical particularities nor abstract universals: a Cogito for a dissolved self. We believe in a world in which individuations are impersonal, and singularities are pre-individual: the splendour of the pronoun 'one' - whence the science-fiction aspect, which necessarily derives from this *Erewhon*. What this book should therefore have made apparent is the advent of a coherence which is no more our own, that of mankind, than that of God or the world. In this sense, it should have been an apocalyptic book. Science fiction in yet another sense, one in which the weaknesses become manifest. How else can one write but of those things which one doesn't know, or knows badly? It is precisely there that we imagine having something to say. We write only at the frontiers of our knowledge, at the border which separates our knowledge from our ignorance and transforms the one into the other. [...] Perhaps writing has a relation to silence altogether more threatening than that which it is supposed to entertain with death. We are therefore well aware, unfortunately, that we have spoken about science in a manner which was not scientific. (1995: xxi)

Such manoeuvre, ironically, shaves off the spiritual and limiting aspects of the neo-Baroque by resorting to manipulation of scientific terms in a style that might be considered spiritual and poetic by those unwilling to closely analyse Deleuze's work. This is the case with contingency of singularities, which takes over the necessity principle; there were contingent and necessary truths in Leibniz, as I outlined, and the contingency of this world was assigned to the necessity of God as its reason. At least since Descartes, philosophy has believed that if *this* universe existed rather than any other (or nothingness), then there must be a sufficient reason for it, and without this reason, the universe would not have stable laws, hence the well-known dice metaphor, according to which the outcomes of infinite number of dice throws with infinite faces would be infinitely different without a sufficient reason that keeps the outcome the same. According to Deleuze, this approach is flawed because it still derives difference from identity. For instance, even if the dice has an infinite number of faces, the metaphor still relies on invariables of this universe which is reduced to a face of the dice (i.e., metaphysics is confused with physics), whereas we can imagine the dice sky-rocket to infinity and never fall back at one attempt, blow apart at yet another attempt, change in quality in another throw,

and so forth. The metaphor, in other words, depends on the fact of probability which is a part of the laws of this universe, the virtuality of existence which is as real as the actual, failing to realize that the possible (the opposite of the real) cannot be totalized, and should not be confused with the virtual (probability and potentiality), and that contingency should not be confused with chance (1995: 191). It is for this reason that Deleuze replaces the necessary reason with *quasi-causes*, with a twist to Hume's dictum that "[i]f the cause, assigned for any effect, be not sufficient to produce it, we must either reject that cause, or add to it such qualities as will give it a just proportion to the effect" (*Enquiry*, 1999 ed., 70). A quasi-cause can be viewed as Whitehead's objectified datum prehended by the emerging event, but it is a quasi-cause because it is inferred as a cause only after a singularity occurs, explaining why *this* singularity other than any other has occurred at the same time showing its contingency (i.e., the possibility of other outcomes which could have occurred), thus failing to prove the necessity of the outcome as such a quasi-cause lacks true agency or teleology. The term Deleuze invents for quasi-causes is *dark precursor*, which is actually his answer to the question how singularities as pure differences of matter can communicate and click together, if we think that relations and communication can occur between identities. For him, resemblances and identities are the effects of dark precursors showing the true groundlessness of differentiation, nevertheless functioning as a differential interpretant between two heterogeneous series of singularities, or the quasi-cause of a singularity – this is not to say singularities do not consist of multiplicities; if we remember its mathematical definition, it refers to points containing innumerable points in itself. Here I call dark precursors interpretants as a reference to Peircean semiotics as it could properly explain the term, because there is always a Peircean element in Deleuze due to his pursuit of an ontological semiotics which goes beyond linguistics and language, as opposed to the interest in Saussurean principles in the works of other post-structuralists such as Jacques Derrida. Such semiotics always refers to bodies (physical world as a whole), bodily practices and relations which always escape language and communication, viewing the field of linguistics as structured like extra-linguistic relations, not vice

versa. In this sense, Peirce's monads (which he also calls *firstness*) are the experiential, sensual and inconceivable qualities of matter without any outside referent; they are virtual haecceities and singularities, chaotic possibilities acknowledging no coordination, like *poles*, so to speak. For instance, the image of the Star Child in **2001: A Space Odyssey** is a firstness, a singularity, sort of a cosmic egg, a chance for a whole new life or a rebirth (alongside the sense of chaos, too humanized to be ontological, too primordial to be contained in signification), bearing no nostalgia. While Peirce's prose is otherwise impenetrable and as analytic as it gets, it is through the concept of firstness that his philosophy gets a poetic aspect and most intensely touches upon aesthetics, as in the case of his definition of the universe as an artistic monad (**Collected Papers**, 5.119). His *secondness*, on the other hand, refers to actual materiality of singularities, the clash of singular series, passions, actions, reactions. Every system of duality – including binary structures, the global circulation of clichés (as in Hollywood cinema), normative morality, solipsism – occurs in the domain of secondness, even though it is not restricted to these. For instance, if pure darkness as mentioned above can achieve an artistic affect or expectation that *something may happen at any minute*, that a monster may appear, an explosion may occur, as in Stapledon's use, it is still a matter of secondness, but not in the form of cliché. HAL, the human-like computer in **Space Odyssey**, is another example of it, as an agent which causes the action of the plot, containing in itself both a human personality and a machinic coldness (or, better put, the machinic coldness of the human personality, paradoxically exhibiting glimpses of emotions too intense for humans, as well as human pride and error). It is the popular application of secondness that bothers Deleuze, I think, in his challenging of the notion that differences arise from identities, and his strategic introduction of dark precursors (this becomes more apparent in his later work, especially his 1983 **Cinema 1: The Movement-Image**). It is in this sense that dark precursor can be understood as Peirce's interpretant (or *thirdness*), the image of mediation or interpretation that contains firstness and secondness in itself, relates them to one another and opens them up to other signs and processes. It is the realm of the symbolic order, logical

conjunctions, inferences, generalizations, determinations. In **Space Odyssey**, the image of alien monoliths would be such thirdness, presenting a sense of teleology but failing to explain its own sufficient cause, as an image which has always been there but discovered last. The interesting about this take is that thirdness *precedes* firstness as its quasi-cause, as though law shadows over chaos and possibility, meaning folds on *what might be*, mind inscribes feeling, at the same time proceeding blindly and unable to provide a ground, as a cause that always arrives late:

Thunderbolts explode between different intensities, but they are preceded by an invisible, imperceptible *dark precursor*, which determines their path in advance but *in reverse*, as though intagliated. Likewise, every system contains its dark precursor which ensures the communication of peripheral series. [...] There is no doubt that *there is* an identity belonging to the precursor, and a resemblance between the series which it causes to communicate. This 'there is', however, remains perfectly indeterminate. (Deleuze, 1995: 119)

To give a concrete example, we can think of an adult's cry, or a stutter as a singularity within language that escapes communication. On one hand, it indicates the ontological realm of language derived not from resemblance but primordial noise, which is tamed in a system that still contains noise as a representable sign (which would be its dark precursor, allowing for a communication between now unattainable noise and language as such). On the other hand, if the stutter is linked to a childhood trauma, then the trauma is itself the dark precursor of the stutter, insofar as it is reproduced in the singularity of the adult and establishes a link between the childhood-event and the adult-event, even if the traumatic event never took place (i.e., its virtuality does not make it unreal). Either case, dark precursor is the essence of a singular event, but it is contingent, which means it is essentialized in the subject which lacks it. The same would apply for our silence or stutter when faced with the question what alternatives we can offer to our actual socio-economic conditions whose ontological groundlessness is exposed in our silence which is in turn singularized in the face of its dark precursor, namely the so-called essential triumph of such conditions allowing for communication and thought, whereas the *image* of thought might be viewed as the dark precursor of language while thought itself always escapes it, except for its representation in language (e.g., the Cogito versus thought that can think of its absence). Deleuze often references Marcel Proust's **In**

Search of Lost Time to explain the phenomenon: The singularity of falling in love, two heterogeneous series of adults, on top of the heterogeneous series of the narrator's childhood, the impossible worlds and contingent essences oozing from Albertine that the narrator tries to explicate, a schizophrenic flood of artistic images issuing thereof rather than communication. Then there is another element, that of the narrator's love for his mother as an infant, reproduced as a dark precursor, the function of differentiation between two different agents: "So it is with the hero of *In Search of Lost Time*: his infantile love for the mother is the agent of communication between two adult series, that of Swann with Odette and that of the hero become adult with Albertine - and always the same secret in both cases, the eternal displacement, the eternal disguise of the prisoner, which thereby indicates the point at which the series coexist in the intersubjective unconscious" (1995: 124). In this sense, dark precursors are not illuminated in the singularity of the event, they are implied in the subject and reproduced as demonstrative signs in the constraints of representation: The royal personage, the painter's real face, and the spectator are the dark precursors of "Las Meninas" implied in it, while the painting itself is radically different from them. Of course, the variables can be multiplied: A disaster (regardless of whether it is so-called *natural* or not), for instance, is itself a singular event in mathematical terms. However, aside from unpredictable processes of the Earth, a myriad of other events such as the social conditions of people that happen to inhabit the realm of the disaster, their behaviour at the moment of the disaster, the effects of the Anthropocene, the stability of structures involved *contingently* contribute to the event, to the extent that if we attempt to break down every variable as much as possible, it becomes evident that there is no real agent, or a true cause but heterogeneous quasi-causes without *necessarily* having anything in common. Even in cases like a murder where a dark precursor can be pointed out, it is evident that there are innumerable and contingent minor singularities leading to it, which still makes the event contingent on many agents which are not necessary at all. Our actual conditions, obviously, are the dark precursors of the post-Singularity scenario *insofar as it emerges in the present* (not as an actual reality of the future), handling an

undefinable shift in technological progression beyond the parameters of humanity while lacking the aspects of humanity and late capitalism in it, except as a condition for its representation, which is another reason that it works as an artistic creation rather than an actual prophecy. Here it should be remembered that, according to this aesthetic paradigm, such a post-Singularity setting does not shed light on the present, but expresses its contingency and its potential for modification which remains in the dark (as in **Erewhon**); *the human* exists only with an asterisk next to it. However, the thing about this scheme, which is overtly Leibnizian, is that we do not need disasters, murders, novels, traumas or even the technological Singularity to realize singularities: Every regular event is a singularity, because every event is infinitely contingent and their probability of actual occurrence is infinitesimally minute, but they do happen all the time without violating deterministic laws and without any apparent agent behind them, which is why dark precursors always stay dark (hence Deleuze's placement of writing on the boundary between knowledge and ignorance). There is nothing mysterious about dark precursors or singularities; it is a philosophical depiction of the chaotic nature of material processes, showing why their *metastability* in philosophical sense would not necessarily lead to chaos and nothingness while it might be the case in terms of physics. In this regard, we do not necessarily reach a singularity if we reverse the expansion of the universe; the universe itself is a singularity with a dark precursor the effects of which we might perhaps infer, but this precursor can only offer a symbolic/derivative explanation on the processes which gave rise to space and time, failing to show its necessity or an agency behind it, which does not exist. We can only speak of the radical difference of the universe from its dark precursor, and other possible universes would be radically different beyond communication, not merely other faces of the same dice, even though we can possibly find new ways of capturing singularities and drawing similarities as an effect through the medium of this dark precursor.

What is the reason, one may ask, that this philosophical system deliberately draws on mathematical and scientific concepts which elude definition, appropriates them for the discourse of metaphysics to build a world view devoid of metaphysical

dimensions, replacing transcendent Ideas with the immanent potentiality and genetic conditions of the Earth which is nevertheless more enriching and creative? It would be equally valid to question the ethical consequences of such an ontological revision of the neo-Baroque aesthetics, as well as political implications of this strategy, because, as I stated, this paradigm renders these fields of knowledge inseparable and it is hard to detect which one is exactly the motivation behind the others. However, especially in the 1970s and 1980s, it becomes evident that the single most objective of this project is to establish tools of resistance against hegemonic discourses, tools which allow us to move beyond communication which is but a form of commodity exchange, an apparatus of homogenization, competition, mass production of consent and guilt, and consumption of paranoia, rendering differences reducible to identities. In this sense, we should reiterate the earlier impulse to reclaim *perspectives* from conformist opinions, to invent an *asignifying* semiotics in which differences only communicate through differentiation (that is what I call semiotics of non-communication), to discover new formulations that include an infinite number of new expressions as powerful and resistant as *I would rather not to*, so to speak. The concept of dark precursor thus emerges as a double-edged sword through which singularities can be captured and classified, or set free and allowed to engage in the flow of existence as an ethical process.

1.4. A Paradox to Solve a Simpler Paradox: Singularity and Beyond

In his collaboration with Guattari, Deleuze retains the concept of singularities but replaces dark precursors with abstract machines taken from automata theory. However, at the moment it is unnecessary to get into its specifics as it can be read alongside the theme of automation in the fictional works of my analysis. What is more relevant for this study at this point is the presence of the same impulse in science fiction of the 1980s, from which I claim that post-Singularity fiction arose. In fact, to recall, I implicated earlier that this impulse lied at the root of the bifurcation in science fiction in the 1980s as indicated in Jameson's analysis, but the interest in two different branches of scientific development alone (i.e., digital technologies as in cyberpunk and life sciences that led to biopunk) would not be sufficient to account

for such impulse without the introduction of a third element, the single and ultimate embodiment of radical difference in the history of science fiction, namely the motif of alien bodies. If the theoretical basis that I have just provided holds true, there must be a revived interest in alien bodies as such right at the threshold science fiction had to cross in the 1980s.

It should be noted that science fiction has never had a problem with imagining alien bodies since Stapledon, in far more creative and non-anthropomorphic ways than the stereotypical representations in popular media, such that when we add the alien element to the equation we start to observe trifurcations and quadfurcations. The differences between the One and the many, the many and the dual, the individual and the collective, the compatible and incompatible with Man, as well as alternatives like sexual and non-sexual small groups alone offer enriching combinations for the possibility of alien bodies, not to mention the two opposing form of first-contact narrations, in which the alien body can be either the observer or observed (the latter exemplified in space operas), or both at the same time, as in Arthur C. Clarke's narratives. This is also a fruitful domain for right-wing narratives, the alien as an outside threat being the most familiar American theme especially in the context of the Cold War, but the other side of the spectrum, the alien domain as an exotic place of discovery (originally a leftist invention), as Jameson observes, was also taken up by right-wing intellectuals in seemingly progressivist, at times pseudo anarcho-capitalist world views in the 1970s as globalist policies took more consumer-friendly mode on a wider scale (here Jameson offers an prosperous analysis of the 1974 American novel **The Mote in God's Eye** as a complex right-wing utopia), while in the same years revolutionary writers such as Ursula K. Le Guin were applying the same literary tools to explore the relationship between the biological make-up and social structures in alien worlds, particularly with a feminist turn (2005: 132). One of the most radical transformations in the theme in this period, however, occurs in the New Wave movement which, as mentioned earlier, marks a shift from extraterrestrial science fiction to introspective narratives, the effects of which still persist in cyberpunk and biopunk. The alien body of these narratives most

usually arises as a result of our own technological production, particularly as an android (or a synthetic human, a clone, a robo-sapiens, and so forth) primarily thanks to Philip K. Dick's 1968 novel **Do Androids Dream of Electric Sheep?**, at least in the context of the contemporary use of the theme. No more the external Other, aliens of these stories are actually more *human* and sympathetic than the so-called real human characters, serving as a deconstructive image of the Uncanny which alienates and destabilizes the human aspect. In other words, aliens of the New Wave are deliberately too identical to us: This is the case even in extraterrestrial aliens in the works of writers affiliated with the New Wave, as in **The Helliconia** trilogy by Brian Aldiss (1982-1985), whose protagonist is actually the titular planet rather than its inhabitants, most notably *humans*, extraterrestrial aliens identical to our species despite having no planetary or evolutionary link to us. According to Leibniz's *identity of indiscernibles* principle, these aliens would be humans, despite a fundamental difference of some sort (an evolutionary link, molecular make-up, neural pathways, synthetic reproduction, etc.) which, thanks to them, proves to be not so fundamental, after all; they still imply an other world, the way a crab feebly yet gracefully totters on land implies an other world we sympathize through the crab's alienated moves on land, threatened to get caught and dissected for scientific study, or to reverse Philip K. Dick's metaphor, the way a frightened sheep heads to the slaughterhouse embodies *the Abject* we dread to face and try not to think of. Such ordinary encounters, the bonds we establish with other worlds through a difference constitute a baroque aesthetics of another kind, for the concept of other possible and impossible worlds does not have to imply an excess or grandiose, but contains the minute differences which arise even among individuals. Androids, of course, contain *the absence* of a natural environment which, unlike crabs and sheep, they do not have, and the bond is established through the absence of a human essence in return, except as an equally alienated and alienating element that undermines itself and its milieu, and extracts more groundlessness from its own false grounds. This transformation, which obviously has nothing to do with the banal and unimaginative representations of anthropomorphic alien bodies, has been the most influential in the

theme of alien bodies to this day as it allows for the taboo subjects to flourish, particularly non-heteronormative romantic and sexual relationships between the human and the android, which has been a more dominant theme than class relations for the past three decades.

The question, in short, does not concern the possibility of imagining alien bodies which are beyond our empirical experience, but still scientifically valid. Until the 1980s, the factual absence of alien life did not matter in science fiction so much as the imagination of alternative social formations so long as the authors managed to provide a scientific basis for those alien bodies, and this model proved successful especially in science fiction cinema from the late 1960s to the early 1980s. However, if the early 1980s marks a shift towards a more rigorous interest in science in the genre as opposed to the rise of fantasy and right-wing narratives, as discussed earlier, then the following question becomes inevitable: Does the scientific basis provided for the make-up of alien bodies alone prove sufficient to distinguish the genre from fantasy, given the empirical absence of alien life forms? In other words, is it not still space fantasy? What is the essential difference, really, between dragons and aliens (especially, considering that writers such as Le Guin uses both)? The question is closely related to American astrophysicist Michael Hart's 1975 paper "Explanation for the Absence of Extraterrestrials on Earth" which popularized the Fermi paradox, suggesting that given the sheer number of stars and habitable zones in the Milky Way alone, there can be up to one hundred million civilizations in our own galaxy, and considering the rate of technological growth and interstellar travel even close to speeds we can achieve (much lower than light speed travel, that is), it would take less than fifty million years for a civilization to colonize the entire Milky Way as long as the civilization is sustainable, meaning that the Earth should have been colonized or at least visited way before human species evolved, but there is absolutely no evidence for alien life despite such a high probability. The paradox is named after Italian-American physicist Enrico Fermi, more renown as one of the founding fathers of the nuclear age and the atomic bomb for his work on the Manhattan Project during WWII, but the question itself dates back to Russian cosmonauts of the 1930s, two

decades prior to Fermi's casual conversations in 1950 when he supposedly stated the paradox (Lytkin et al, 1995). Accordingly, the earliest explanation for the paradox, namely *the zoo hypothesis* which assumes that alien bodies intentionally avoids communication with our planet but still observes us, dates back to none other than Stapledon himself, even though he did not actually believe in such a hypothesis, but included a scenario in **Star Maker** according to which the symbiotic race of ichthyoids and arachnoids observe more primitive species until they attain their own utopia, as an overt political statement that we cannot expect to grasp a higher truth by scientific means unless we firstly become sociologically and ethically mature species (1937: 164). Nevertheless, the zoo hypothesis became the most influential scenario in science fiction – which is only expected, as paranoia is a major character of the 20th century – and in 2001, it was reformulated by English engineer and hard science fiction writer Stephen Baxter as *the planetarium hypothesis*, positing that our empirical experience is but an illusion, as it has been engineered, by a type III civilization on the Kardashev scale, to look empty of alien life – as I mentioned earlier, such a civilization would be able to store and control the energy of an entire galaxy, making it a post-Singularity formation for us (This is not, by the way, the only instance of Baxter's revision of a Stapledonian invention: His gigantic magnum opus, the **Xeelee Sequence** [1991–present] reads like a hard science fiction rewriting and elaboration of **Star Maker**, encompassing fifty billion years, the entire lifespan of our universe which, in some cases, gives way to multiversal existence, in others, to Spinozist necessitarianism, containing each and every scientific fact, condition and hypothesis we can imagine – even contradicting ones, each generating an entirely unique world and alien civilization, nevertheless forming a coherent, ultimately Baroque narrative governed by the discourse of science). Of course, the zoo hypothesis (and its variations) is not the only offered solution for the paradox, and it does not take much effort to speculate on many other explanations: Even if the universe abounds with life, intelligence and/or consciousness may not be as crucial to complex forms of life as we think, higher intelligence forms may not have our colonial mentality, submarine life may be the norm and our land life (hence the

interplanetary quest) may be an exception, frequent extinction may be a cosmic phenomenon just as intelligent life, we may be using wrong tools for search, and so on. It would not be an exaggeration to say that, for the past five decades, the paradox itself has become a scientific field of its own, since there are now as many explanations for the lack of other world as alien bodies we have managed to imagine: In 2017, for instance, researchers from Oxford's Future of Humanity Institute put forth *aestivation hypothesis*, stating that aliens are possibly *hibernating* in heat, in order to wait until the universe cools down so that they can build their superior civilization under better conditions, as the temperature of the universe now does not offer the optimal conditions for computational technologies (Sandberg et al, 2017), and this hypothesis has ignited a recent serious debate on thermodynamics of computation and adiabatic computing (Bennett et al, 2019). In short, since the mid 1970s, the absence of other worlds has been in a major joust with their probability, along with our ability to imagine them, and this, of course, could not have been without consequences for science fiction.

At this point, I should get into the other transformation in the alien theme which is more relevant to this study than the New Wave turn (but closely related to it), since this is the revived interest in alien bodies in the 1980s that I claimed was bound to rise as the notion of difference began to change. The transformation is marked by the 1986 publication of **Marooned in Realtime** by Vernor Vinge, who had just written the seminal cyberpunk work **True Names** in 1981, three years before Gibson's **Neuromancer**. What is unique about Vinge's work is that, unlike the alien of the New Wave as an uprooting presence for the assumed base of humanity due to its absolute resemblance, humans themselves are equated with the absent alien element as a result of the supposed technological Singularity, which Vinge offers as an alternative solution to the Fermi paradox. **Marooned in Realtime** is a postmodern locked room mystery, a part of *the Bobble series*, essentially relying on post-WWII vehicle/weapon dialectic, derived from the historical fact that our current spacecrafts were originally weapons, which turned causality chain upside down for war victims, as they can travel faster than sound and the image of dead comes *before* its sound,

which can only be heard by survivors. Bobbles in Vinge's work are centred around this dialectic (that which can transmit death can be used to transport people), as they are originally designed to be weapons, but are used to take people and their technology far into the future, because time freezes inside bobbles. Therefore, it unfolds a situation in which people, *bobbled* at various historical echelons, can find themselves in a time-displaced situation once their bobbles are burst. **Marooned in Realtime** presents such a collage of low-tech people and high-tech cyborgs of various degrees, depending on their bobbling dates, now gathered together to encounter the Earth entirely empty of human life, presumably since the 23rd century. The true mystery of this detective fiction thus concerns the apparent extinction of humanity, even though a secondary mystery develops around a high-tech murder of a possible leader of the brand new civilization to be founded under these conditions, which must be solved by the protagonist Wil W. Brierson, who is the only detective among the remaining humans and also the lowest person in the hierarchy of technological development – therefore, technically, the oldest, whereas the explanation for the former is offered by Della, a high-tech space traveller who has observed the galaxy for nine thousand years, making her the real oldest character in the novel. Apparently, as it is revealed in the course of her guidance for Brierson's acquaintance with the high-tech details of the murder case, she has also witnessed the presence of several intelligent civilizations, which seemed to vanish for no reason. Her explanation is technological singularity: Civilizations, otherwise possibly accessible, seem to reach a certain developed state beyond which they shed their biological form, and simply switch to a mode of existence unavailable to those in the pre-Singularity state. It seems to be the most logical reason for the landscape they encounter, since there is no sign of a major war, an ecological crisis (plant and animal life seems to have evolved greatly with no interruption), and other explanations sound too 20th century-ish. Still, fundamentally, Della's explanation originates from the apocalyptic solution to the Fermi paradox: While most other solutions are based on essential differences between the Earth and other worlds, apocalyptic solutions see destruction as a cosmic norm of intelligent life, which

would destroy themselves and/or other lives in their reach before they could establish an interstellar formation, explaining their empirical absence. In this sense, the extinction of human life in **Marooned in Realtime** can be easily explained by the traditional Cold War scenario, namely the alien invasion; however, the technological Singularity simultaneously offers a way out of such a pessimistic cosmic view, suggesting that true *alienness* is a result of differentiation within civilizations themselves. According to Della, such a scenario is not apocalyptic at all:

During the last two thousand years of civilization, almost every measure of progress showed exponential growth. From the nineteenth century on, this was obvious. People began extrapolating the trends. The results were absurd: vehicles travelling faster than sound by the mid-twentieth century, men on the moon a bit later. All this was achieved, yet progress continued. Simple-minded extrapolations of energy production and computer power and vehicle speeds gave meaninglessly large answers for the late twenty-first century. The more sophisticated forecasters pointed out that real growth eventually saturates; the numbers coming out of the extrapolations were just too big to be believed. [...] By 2200, we could increase human intelligence itself. And intelligence is the basis of all progress. My guess is that by midcentury, any goal—any goal you can state objectively, without internal contradictions — could be achieved. And what would things be like fifty years after that. [...] To call that time 'the Extinction' is absurd. It was a Singularity, a place where extrapolation breaks down and new models must be applied. And those new models are beyond our intelligence” (1986: 77-8).

Indeed, there is a religious sense in this, an implication of salvation/damnation dialectic, and as I will elaborate in the following chapter, it has become somewhat like a technocratic fantasy in the context of the 21st century info-capitalism, often referred to as *the rapture of the nerds*. Vinge himself thought there was no way to take human characters linearly into the future *through* the Singularity, and chose to ponder upon it in retrospective narrations or find literary ways to write *around* it, because human tools are too alien to Singularity. His 1992 novel **A Fire Upon the Deep** expands on the latter by presenting a concentric/labyrinthine image of the Milky Way structured according to what might be called a hierarchy of monads, with flexible neo-Platonic undertones. In this model, the realm of post-Singularity is the outskirts, the galactic corona of the Milky Way, *the Transcend* layer as called in the novel, while the entire action takes place in the inner layers, particularly *the Beyond*, which is still much more developed than *the Slow Zone* where the Earth is located, and normally inaccessible to humans themselves as faster-than-light travel is a crucial element in the Beyond, even though some humans have

managed to reach there and built civilizations among superintelligences inhabiting the layer before humans. Once again, the story consists of a neo-Baroque collision of impossible worlds in a gigantic interface where boundaries blur between two unrepresented extremes (the Unthinking Depths and the Transcend), culminating with the folding of the Slow Zone over the Beyond, swallowing it to end the expansion of a malevolent superintelligent called the Blight, at the expense of technological development itself, rendering the Transcend even more inaccessible. Rather than subjected to time, in this case, the Singularity becomes a phenomenon simultaneously present deep in space, still marking an absence in Vinge's work, the limit of representation; as his 1993 academic paper "The Coming Technological Singularity: How to Survive in the Post-Human Era," which popularized the term, makes it evident that he thinks it is by definition beyond human imagination and language, that is, the very conditions of science fiction. In other words, since we cannot know what happens after the Singularity, we cannot speculate on it; Eliezer Yudkowsky defines this view as *the event horizon school* in the Singularity discourse (2007). We cannot speak, therefore, of *post*-Singularity fiction in the early 1990s, but of the emergence of an artistic perspective which we cannot see through and remain human at the same time; it is not a human perspective, it is a perspective which belongs to the world of objects, just like Leibniz conceived what perspectives to be over three centuries ago, but the difference is that the new perspective does not require human monads to express them, orprehend them as Whitehead would put it. It is a posthuman perspective that prehends itself, along with pre-individual singularities in its reach, or pre-individual micro-perceptions "unhampered by epistemic limitations of the visible and intelligible" as Colin Milburn puts it (2008: 5), that is, a posthuman perspective of Whitehead's concept of the *superject*, not a mere alteration of reality but a production of an entirely new reality. The path thus initiated by Vinge is in a sense a shift in science fiction itself, for it does not unfold a particular setting but puts forth a riddle, a labyrinth: What is the place of humanity in all this? Even though the post-Singularity world does not *need* us, can we become a part of it? How can we even define "we" in this process? Will humanity evolve

cooperatively with machines, or end up in a competitive struggle? What should be our political and ethical stance towards it at the present? Questions have only multiplied for the past three decades in the discourse of Singularity, in ways that blur the line between fiction and non-fiction, and I will look into these in the works of Charles Stross. However, it must be emphasized that the subject matter at hand is an art form: Transhuman characters, for instance, can be treated equally as experimental subjects for the future of humanity in the context of technological progress and cyborg theory, *and* literary devices that mediate between the reader and the radically different posthuman entities for the solution of the representation problem rooted in science fiction with respect to the alien motif.

In this respect, it must be noted once again that this subgenre derives from Vinge's literary problematization of Singularity, as the idea itself did not emerge in the 1980s. Even prior to technological tools to imagine it, in the history of philosophy, certain ideas can be viewed as essentially singularitarian, such as Hegel's concept of history as an overarching narrative moving towards an ideal point at which the Absolute can be known – that is basically the root of Marxist metaphysics, and the 20th century idealist concepts of *noosphere* and *the Omega Point*, a state of unified consciousness able to grasp existence in its entirety which Pierre Teilhard de Chadrin considered to be the ultimate stage of evolution (1959), and later examined in science fiction by Clarke and Baxter. The possible use of technology as a means of human enhancement and transcending mental capacities goes all the way back to the 18th century mathematician Nicolas de Condorcet who might be considered as the first extropian (Bostrom, 2011). The concrete possibility of technological singularity in the light of modern technology as we know it goes back to discussions between Stanisław Ulam and John von Neumann in the 1950s, fixated on the accelerating progress of innovation and changes in human existence, seemingly pointing toward some fundamental singularity beyond which human issues could not proceed (Ulam, 1958). More importantly, the discourse of Singularity is founded on two key concepts which are not Vinge's inventions: Intelligence explosion and speed explosion. The former was proposed by British mathematician Irvin John Good in

1965, based on the assumption that if we manage to design a superintelligent machine which exceeds all mental activities of the human brain (though it can be a human-based intelligence enhanced through extensions to the brain or genetic engineering), then such machine will be able to design a machine even smarter, ad infinitum, essentially evolving towards pure artificiality which is more efficient and sustainable for further economical designs without biological constraints. The second concept, speed explosion, originates from the formulations of self-accelerating processes of technology, dating back to the early 20th century (Adams, 1918). In a more recent context, it concerns the rate of computing processes which periodically double in speed, while the period of doubling increasingly decreases (Moore, 1965). According to the 1985 paper “The Time Scale of Artificial Intelligence” by Ray Solomonoff, the inventor of algorithmic probability and one of the founders of artificial intelligence as a scientific field in the 1950s, such a doubling capacity in increasingly less time implies an *infinity point*, a mathematical singularity at which the doubling capacity and speed would be equally incalculable. Even though the two concepts are closely complementary, they are independent of each other: Computing processes might speed up beyond control without the emergence of intelligence, and the production of smarter and smarter superintelligent machines does not have to occur at infinitely speed rates, which is why the question of whether the Singularity is more likely to follow a slow or fast take-off is a major subject of speculation in the discourse of the Singularity – the grey goo hypothesis mentioned earlier, for instance, is based on the fast take-off scenario, mistakenly so. These two hypotheses do not give us a clue about what the post-Singularity world will be like, but even the way theoreticians formulate and speculate on them reflects their equally fideistic beliefs or doubts concerning humanity and technology, and their implicated predictions on the nature of a post-Singularity world in relation to the questions of its probability, dangers, benefits, road maps and consequences derived from the two concepts. The logic of the Singularity in the context of scientific discourse works in reverse: Ideological assumptions come first, and participants in the field project their views onto the dark wall of the Singularity via the language of science. This is because, I

think, the concept is deeply rooted in art and literary logic, which is what has allowed the field to flourish in the first place. By contrast, when we attempt to predict a post-Singularity future in non-fictional modalities, we revert back to the most humorous habits of anthropomorphization: David Chalmers, for instance, believes that the Singularity will prove either Kantian or Humean position on the relationship between rationality and ethics: Since Chalmers is sympathetic towards the Humean position (that rationality and ethical values are independent, as opposed to Kant's claim that ethical values are derived from rationality), he suggests we implement internal restrictions into the make-up of first generation superintelligences, or as long as we can, in order to secure the future of humanity – and it is not even guaranteed that superintelligences will not turn against human values if Kant is right, because some superior ethical reason may emerge as the result of superior rationality, and that ethical reason may conflict with our benefits, values and/or existence (2010: 35).

I am not entirely sure if rationality and ethics, or Kantian and Humean philosophies will be still relevant in a post-Singularity setting; it seems more appropriate to question Kant's subjectivism and Humean empiricism, and our own ethical values and rationality with respect to the 21st century aesthetics of post-Singularity, not merely as a set of propositions regarding the future, but as a mode of literary production reflecting the need to discharge and transform our own cultural anxieties and cognitive dissonances, when faced with the late capitalistic reality of relativism which now allows us to think of the unthinkable, view the most apocalyptic scenarios (e.g., the end of humanity) beyond the rhetoric of dystopia. The Singularity may happen in the (near) future, or we will have to project the Fermi paradox onto our own reality, that there is no empirical evidence for the Singularity-event despite its high probability, and it may be the case that the future of (post- and trans-) humanity will gradually hyper-develop to the extent that Singularity itself will occur in undetectable ways without an event horizon while we become more and more unrecognisable. While post-Singularity fiction does not escape from these speculations, its narrative logic works in reverse: It does not make irrefutable and positivist predictions about the future any longer – and as such, the probability or the

definition of the Singularity itself is not the paramount matter. Instead, the tools of prediction are projected from the Singularity-event into the flustered and bewildering present which requires complex ways of relating to the future, getting even more inexorably dubious and contingent. This was not, of course, the route Vinge intended or predicted the genre would take after his fiction; he had only set up a black hole, *impossible* with the premises of science fiction itself. However, art, and especially the Baroque aesthetics in which science fiction is deeply rooted, has always been conceiving impossibles on the same plane of (re)creation and amplification of percepts, affects and experiences of the present; therefore, in the mid-90s, various hard science fiction writers – mostly with a scientific academic background, including Bruce Sterling, Charles Stross, Cory Doctorow, Greg Egan, Ken MacLeod, Neal Stephenson, Greg Egan, Rudy Rucker, and Stephen Baxter, started working on the problem Vinge had put forth, or “the turd,” as Stross says, that Vinge had dropped into “the punchbowl of near-future SF,” which now had to be spread around and used as a fertilizer if any contemporary writer wanted to stay honest to the game without pretending that the turd was not there (Grossman, 2006). Post-Singularity fiction thus arose in the late 1990s and early 2000s, as an imperative to imagine beyond a threshold that was originally deemed unimaginable.

The turd metaphor expressed by Stross, right off the bat, gives us a clue on the first characteristics of post-Singularity fiction, namely its anti-eschatological nature: If that *one big turd* is dispersed and applied as a fertilizer, one cannot speak of *the* Singularity, but a multiplication of singularities, arising from the rejection of the quasi-religious discourse of the Singularity, which has since Vinge become the fantasy of secular right-wing liberalism, based on simultaneous economical expansion and the extropian technocultural colonization of the biosphere. Post-Singularity fiction, by contrast, uses the image of Singularity as a tool of sophistication and infinite possibility which can be repeatedly applied and reformulated to examine the conditions of the present, making it essentially a leftist subgenre, for one of the singularities conceived as an intervention of posthuman technologies bringing forth new forms of economic values and modes of exchange

without the constraints of current scarcity and labour theories is an *economic* singularity, which is not so much related to fantastic capacities of future superintelligences as the possibilities that already exist in the 21st century. It should be noted that this logic heavily draws on the pre-social media internet which, if we recall, was much more decentralized when post-Singularity fiction emerged in the early 2000s: In the absence of popular apps, monopolizing social media companies, and the spiral of advertising algorithms which now govern our experience, every personal computer was an autonomous server in the network of peer-to-peer file sharing communications protocol (e.g., BitTorrent), open source/free software and copyleft movements were on the rise, the gloom of cyberpunk visions had been dissipated to some degree – and the biggest difference, perhaps, was that this open/decentralized model required code literacy, software programming/cracking, familiarity with hardwares, a very different active participation of internet users than that of today. Much of post-Singularity economy is informed by this conception, a model based on reciprocity, post-scarcity, immaterial/informational commodities, transparency and openness of privacy, with a necessary technological intervention: This model, in post-Singularity fiction, through nanofactoring, is inscribed on the physical world conceived as a sort of an assemblage of self-regulating hardwares. Whereas it is a leftist world view par excellence, it lacks the orthodox Marxist teleology and the dialectic between the proletariat and global corporations as we know it, since the dynamics of labour, capital, production and consumption change beyond recognized economic models and ideological oppositions altogether, which is why writers of post-Singularity almost always weave their narratives against economical terms, and that is why classical Marxist approaches to these narratives have often fallen short. Things get even more complicated, considering that *accelerationism*, a strategy originally proposed by Marx himself but rendered into an essential policy for the Information Age by the right-wing proponents of extropianism and the technological Singularity as a late capitalist utopia, informs the characteristic narrative mode of post-Singularity fiction because, unlike Vinge's conception of Singularity, post-Singularity fiction does not circumvent it, speculate

on it after the fact, or locate it somewhere deep into the space beyond our reach: Instead, it builds the Singularity inside out, dives deep into the turd in a way that embraces the right-wing rhetoric precisely because it radically differs from it, just like it uses (with a shrug) the scientific discourse initiated by Stapledon and Asimov precisely because it is impossible to write about the actual future any longer as self-assuredly as Stapledon but it is necessary to write *as if* it was possible: Necessary, because, the metaphor of Singularity is too alien for the alienating/paranoid modes of narration of the neo-Baroque, but the possibilities it offers are excessively more baroque than the neo-Baroque, which requires a familiarizing medium. In this sense, we see a shift from the postmodern irony and excessive signification to a post-Singularity series of paradoxes superimposed on one another, a clash of differences not resulting in a synthesis but leading to further (undefinable) difference which, to recall, is the definition of mathematical singularity, and the neo-Baroque philosophy based on singularities as revised monads and events – nano-events, in this case. This literary strategy also anticipates a shift in the neo-Baroque concept of resistance associated with postmodernist thinkers which, as noted earlier, precedes the realm of discipline and control as its ontological outside, always appropriated into the epistemic network of discourse, always requiring re-invention of new tools of resistance. Post-Singularity fiction, by contrast, stays *in* the hegemonic discursive fields of biopower, info-capitalism and technoculture, and, *preferring not to resist*, chooses to *intensify* the processes of economic and technological progression with a level of literacy high enough to self-consciously *desist*, expose their own contingency and nevertheless superimpose one impossible over another as if they are completely stable and non-contradictory.

One such superimposition concerns the subgenres of science fiction itself, that is, the major bifurcation of the 1980s discussed earlier, which can be reiterated as two trends towards abstraction (informational technologies, cybernetics, cyberpunk) versus corporeality (nanotechnology, genetic engineering, biopunk), with the common threshold that requires an essential turning of allopoiesis towards humanity. In other words, from the 1980s onwards, the narratives which solely focus

on the alteration of the environment have become insufficient: Humans themselves had to be redefined and altered. It was a political threshold, as Jameson observes, in the midst of the rising right-wing politics on one hand, the marketing appeal of generic fantasy on the other, which entailed new forms of subjectivity that could both escape the commodification of generic identities (that liberal capitalism had been adapting to tolerate and extract surplus value from) and survive in a world which was becoming more and more unsustainable in the hands of corporations – hence the dystopian and anxious atmosphere of the works of this era. Cyberpunk initially tried to overcome this dilemma through abstraction, becoming-anonymous of the human in virtuality even though it may have little effect on the corporeal world except as an intervention by the physically recluse-hacker image against the synonymous becoming-abstract of the corporations, whereas the other trend turned the surviving technology towards the physical adaptation and alteration of humans even though it is not entirely correct to speak of definitive boundaries between the two, as they often draw upon one another: On top of the virtual plane it generates as a simulated alternative world, for instance, cyberpunk can incorporate transhumanist themes in the corporeal world, while the neo-Baroque possibilities in the corporeal world altered through microbiology and nanotechnology can be defined as abstract pockets of information in cybernetic terms. However, generally speaking, early cyberpunk prioritized abstraction over corporeality, and as such, it has received much criticism: Jameson's contention is that it is a borderline subgenre flirting with free-market appeal, and some of the most hostile objections have been raised by feminist criticism, particularly for its re-inscription of Reaganite masculinity and misogynistic domestication on the feminine matrix-womb symbolism (Nixon, 1999), offering a Cartesian cure for male deficiency (Fernbach, 2000) while pretending to dismantle the European male subjectivity (Wolmark, 1999). These are perfectly valid points, especially considering that disembodied pure virtuality has become a right-wing extropian fantasy (although, frankly, after the first wave of cyberpunk, the writers of the genre revised their narratives, perhaps thanks to these objections), and Vinge's conception of the Singularity itself is a direct result of cyberpunk's early affiliation

with it: Only several years after he wrote one of the seminal cyberpunk texts, he took the subgenre to its logical conclusion, according to which the human species transcends its biological constraints and becomes entirely virtual. In this sense, post-Singularity fiction is essentially post-cyberpunk, particularly in its requirement of imposing abstraction *on* to the corporeal world, moving thus beyond the cyberpunk politics of disembodiment towards a new *enhanced* corporeality, or *realized* virtuality (as opposed to virtual reality), for the economic reorganization outlined above. If the human mind can be formulated as a pattern of information, as cyberpunk shows, and reality can be simulated (which also means the freedom of information is literally tantamount to the freedom of our own composition in the free software spirit of the early 21st century), then, thanks to the intervention of nanotechnological manipulation, the corporeal world of objects itself can be programmed to define its own informational patterns, meaning that simulation can also generate physical – and conscious – reality in a self-regulating manner, which would require new laws (encompassing machinic consciousness), new take on the neo-Baroque body politics, new social structures, new definitions of abstraction/corporeality and virtuality/reality. For sure, post-Singularity fiction retains the technology of abstraction, but superimposes the tools of nanotechnological manipulation over it: The molecular structure of *any* object (biological or inorganic) can be mapped, distributed freely, *and* physically produced with a minimal cost, just like a song, or an e-book, but this time in the form of a *real* concert venue, or a library, with real musicians, drinks, books, actual writers from different eras, gathered together in an augmented reality which enables the subject to compose and play all possible tunes simultaneously – the created object being original, copy, both and neither, the setting occupying the real large space, an infinitesimal/virtual nowhere, both and neither. Neo-Baroque narratives have always revolved around hyperreality and simulacra, copies without models, but we could still recognize the embodiment of a representation, the seeping of a movie into our private room, as in Rushdie's "Auction". In post-Singularity fiction, everything is a *model*, and there is absolutely no distinction between corporeality and abstraction to choose one over the other.

Such is the concept of the *variable* object, or *objectile* that Cache formulated in the 1980s with the influence of Leibniz's philosophy, as I noted earlier, the capacity of the object to bring forth novelty in a harmonious manner with the subject, forming a superject at the singular convergence of possibilities and limitations of nanotechnological manipulation (3D printing is the closest technology we can realistically conceive as of now). The next obvious addition to this concept, in post-Singularity fiction is that, the most fundamental aspect of humanity, conscious thinking, is no more peculiar to humans; objects themselves get better at it. *The world as a computer*, therefore, takes upon an entirely new meaning due to these strategies, which is why I earlier noted that we should not hasten to define it as a mere Cartesian resurrection. But at what cost? Such is the big question mark of uncertainty and scepticism that distinguishes post-Singularity fiction from the status of just another techno-fetishist utopia. In these works, the reader witnesses the entire solar system as it gets altered while much of the narrative seemingly takes place in a simulation – in **Accelerando**, for instance, Dyson spheres forming around the Sun are not merely light traps, they are composed of sentient matter; and such a so-called simulation itself issues a reality augmented by newly formed perceptual fields that both condense upon infinitesimal scales and reach interstellar scopes superimposed on one another, in ways that the naked human eye could not recognize, our too human technologies could not detect. Such is the eluding, and grotesque image of the Singularity: An entirely alien mindscape.

CHAPTER TWO

ACCELERANDO: TOWARDS ALIEN MINDSCAPES

Over the last few years, scientists have tackled the question whether artificial intelligence can help us find alien intelligence in ways our anthropocentric vision is yet to imagine. Nathalie A. Cabrol's 2016 paper titled "Alien Mindscapes – A perspective on the Search for Extraterrestrial Intelligence" served as the basis for the 2018 workshop "Decoding Alien Intelligence" at the SETI Institute in Silicon Valley, where astrophysicists, astrobiologists, historians, neuroscientists, anthropologists, and AI researchers assembled to discuss the ways in which high technology could help explore the probability of not just alien life, but also the possible forms of life we simply cannot detect or comprehend by means of classical techno-markers such as radio transmissions. Likewise, in his 2018 essay "Can Artificial Intelligence Help Find Alien Intelligence?", Michael P. Oman-Reagan, points out to the fact that certain forms of intelligence, unbeknownst to us for the most part of history, have always been around us (e.g., the information processing of spiders, the different dialects of cetaceans), and contends that we need multidisciplinary cooperation to invent and encode ideas about true difference into AI, without defining difference in relation to the proximities with human parameters. This is the most difficult challenge before us, he concedes, as our norms and prejudices deeply rooted in our culture have always been embedded in the creation and application of technology. It is interesting that he goes as far as to admit the relationship between ideology and technology, but seems to ignore the fact that science itself is a human way to understand the world. The search for extraterrestrial intelligence, for instance, is so fundamentally human that it seems absurd to look for ways to overcome human bias in search of it; were we peacocks, we would search for extraterrestrial tails (though we could think of ways to imagine *non-peacock* tails), and our gods would have tails too magnificent for our peacock limitations to perceive. Nevertheless, after a momentary scepticism, referring to astrophysicist Martin Rees' optimism that AI could outperform human intelligence to the extent that human intellect exceeds slime

mould, Oman-Reagan hopes that we can eventually create machine operations which will dispense with human bias. That is, of course, on the condition that we should be open to the possibility of an encounter with some sort of slime mould which might exceed human intelligence in the first place; he actually speaks of a scenario in which the biggest organism on Earth might be an *Armillaria ostoyae* fungus on Blue Mountains in Oregon, with a length of 10 square kilometres and an approximate age of 2000-9000 years, bearing some sort of intelligence which falls beyond our expectations and comprehension. The implication here is that AI almost takes upon itself the position of a science fiction writer who, stripped of cultural limitations that blur our capabilities to see alternative worlds, discovers some sensory stimuli, a signal, a new colour beyond our perceptions, then a new alien organ which can receive such signal and express the universe in ways we cannot, a new alien body which may not even seem like any living thing for us, then perhaps some form of borganism for a new generation of social scientists to speculate upon at the Frontier Development Lab, with the partnership of NASA, the SETI Institute, Intel, IBM, Luxembourg Space Agency, Hewlett Packard Enterprise, NVIDIA, Google, Kx, Element AI, Lockheed Martin Corporation, USGS and others in Silicon Valley.

Charles Stross' **Accelerando** opens against the backdrop of quite a similar vision as it concerns the faith in technology as such, serving as the basis of the techno-speculations as summarized above, which might come across as the 21st century abstract art of technocracy par excellence. In any case, as we will see in a moment, Stross substantially charges such faith with distrust and sarcasm, making no pretence of having more answers than questions as an AI-writer in the aforementioned scenario would, nor betraying any sense of serious intent to save technological progress from the ideological primers behind it. Nevertheless, on the surface, **Accelerando** is surprisingly too devoid of conflict for a novel of such an expansive scope and too sparse in overt political opposition for an openly leftist writer. In the 21st century world Stross creates in **Accelerando**, opposition just seems to replace the domain previously held by powerful governing principles, the needs of which can be no more met by defunct and lowbrow politicians for whom, to speak in

Foucauldian terms, problematization of certain deviations have not only become obsolete but the process of problematization itself has become a problem. In this paradigm, freedom of thought, albeit not evident until the final pages of the novel, seems to be a trap through which an experience of opposition is constructed in the service of political power, becoming in turn the object of analysis in the hands of the so-called opposition which is equally defunct, despite subtly holding the power of discourse, especially as it relates to the failure of both individualism and identity politics of the previous century. Accordingly, the first part of the novel selects a *pronoiac* protagonist in Manfred Macx whose extropian entrepreneur mindset in certain respects resembles not so much the typical hacker of cyberpunk fiction as Elon Musk, not to mention his exocortex prostheses which could just be the forerunner of Neuralink Corporation. The term *pronoia* in psychology, which can be simplified as positive paranoia, is relatively new: It is yet another form of delusion that can be manifest in faulty interpretations of interpersonal interactions, as in the case of schizoids who may mistake a kind behaviour with a deep and meaningful interest, or covert narcissists who may project their own grandiose delusions on an idealized person for whose benefit they want to believe the world is working (Manfield, 1992). In literature, it is no surprise that pronoia as a sense that the world is a labyrinthine plot in favour of oneself would emerge as a less expressed sibling of paranoia, which is a characteristic of the 20th century neo-Baroque aesthetics, first without an actual name (Salinger, 1955), then as a metaphor prior to its clinical use. In the early 1980s, Philip K. Dick actually applied the term (deriving from the philosophy of Philo of Alexandria) pretty much as a synonym of Leibniz's *impossibility*, but with an inverted conclusion; for him, paranoia refers to the mechanical aspect of this world ruled by Satan, whereas pronoia is infinite *charis*, divine providence, the unrealized power of creation which nevertheless intervenes against the outcomes of paranoiac dangers and can be accessed through religious experiences – the theological base of his **VALIS Trilogy** (2011: 757). Moreover, the term acquired a political meaning in the context of the 1990s counterculture against the policies of Thatcher and later John Major, largely thanks to Scottish leader of the

technogaian movement Fraser Clark who embraced pronopia as a persistent revolutionary belief in communal values despite the empirical evidence on the contrary thanks to paranoia-generating mass media (Collin, and Godfrey, 1998). He is affiliated with the Zippie movement of the 1990s which, itself referring to the hippie culture of the 1960s and the 1972 fraction of the Youth International Party, can be defined as the reclamation attempt of (the right-wing dominant) technoculture for leftist goals of British/American acid house culture and proponents of electronic civil disobedience, whom Clark dubs “Zen-Inspired Pronopia Professionals,” as opposed to young urban professionals, or yippies (Jules, 1994). This use of the term certainly anticipates Manfred's character; indeed, young pre-Singularity Manfred can be imagined as the stereotypical pronopiac depicted in the 1994 Wire Magazine cover titled “Here Come the Zippies!” (see Figure 2.1), the difference being that Manfred's glasses are not a fancy hipster accessory but a part of his exocortex, a literal extension of his brain without which he loses his identity. In addition, as to the pronopiac narrative development of **Accelerando** which accepts no opposition, it must be also noted that a sense of pronopia, which I would call *benign Pollyannaism*, is a crucial element in the right-wing extropianist fantasy of the Singularity that the novel proceeds towards. Pronopia, in other words, also takes a satiric and ambivalent sense in **Accelerando**, which I will show in a moment.

Keeping Stross' ambivalent use of terms in mind, especially when it concerns economic systems – that often allude to archaic practices as I will also mention, it should be here added yet another, pre-capitalistic meaning of pronopia to the equation, which refers to grants that temporarily assigned imperial rights of a land to an individual or an institution in the late Eastern Rome Empire, as a reward for a (usually military) service to the monarch; the system was successful because it generated competition and established the military organization without the need for actual government funding, the risk of empowering the aristocracy, or establishing serfdom, as pronopiacs were merely temporary tax collectors even though there was always a risk of some local uprising under the leadership of these assigned people (Treadgold, 1997). Stross does not explicitly use the term in this sense, but it

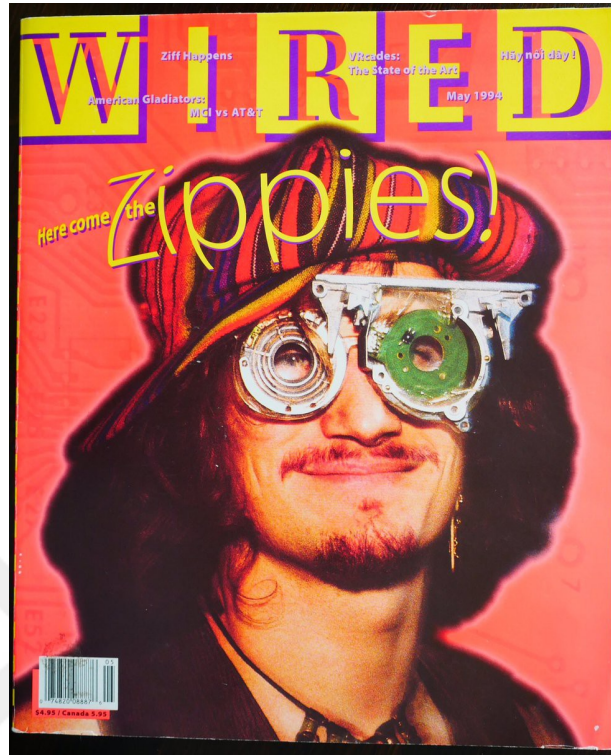


Figure 2.1: Here Come the Zippies! Or the Typical Pronoiac.
Source: **Wire Magazine**, issue 2.05, May, 1994.

does work as an analogy to Manfred's pre-Singularity pursuits which his ex-wife Pamela views as madness and may sound intelligible to the reader. Earlier, I stated that the economic vision of post-Singularity fiction is anticipated by peer-to-peer file sharing and entertains the idea of its articulation in the world of objects through molecular mapping and embodiment of information which would give way to a post-scarcity system. Manfred believes we can, and should start the process on the level of firms, companies, and corporations: As a self-proclaimed *tax collector* – and at the same time an abstract farmer – of some sort, he uses the network of companies as a granted land (i.e. pronoiia) which he can examine thirty seconds into the future. However, with his post-scarcity vision, he does not actually gather profit, surplus value, or anything they produce; instead, he collects their *models* which exist as their contingent quasi-cause prior to their emergence as singular entities recognized in law, even though they do not actually belong to them. In other words, he views companies as abstract objects that can be modelled and reproduced ad infinitum, just as he

believes concrete objects, basic needs, cultural products, even humans can be mapped and distributed freely, insofar as their phenotypes, or dark precursors/abstract machines as Deleuze would call them, are inscribed properly. Manipulating their incorporeal status – since they do not actually exist other than a set of governing principles which do not necessarily produce anything but may very well draw on more abstractions, as in derivatives market that move around double-abstraction of money – he thus commodifies and produces so-called *original* companies, which is not illegal in itself, and even encouraged to an extent. In this sense, pronoia would be that which is extracted from the system without actually affecting it, at least not in theory, and rendered into an original body which is re-inscribed into the system. The consequence, obviously, is an over-population of firms and a gift economy rather than a reward economy. Overnight, people to whom Manfred randomly gives away business models secure a voice in law, a place in the market: They become rich.

Of course, such inflation of corporate bodies is somewhat nightmarish for the existing corporations: The system can only afford so many companies just as it needs a certain balance between employment and unemployment – and Manfred's intervention would also end up dispensing with employment in the traditional sense. However, in Manfred's logic, the myth of competition and scarcity itself is what creates paranoia, and all he really does is to re-distribute excess wealth, which is otherwise wasted in greater oppositions (such as warfare and ideological apparatuses) than mere legal disputes which pose no problem for his pronoiac mind and **Accelerando's** narrative as it is bound to move towards the technological Singularity. He thus armours individuals and small units of people with an invisible corporate bubble, giving a new meaning to the term *homo economicus* and the institutional nature of our daily social interactions, an opportunity to engage in other transparent yet private economic-monads on a business level, which is liberating on one hand (which is why people willingly embrace the patents and models granted to them), and entirely imprisoning on the other, because each corporate body is really cancerous and requires perpetual growth, problematic in itself since this model

leaves no room for masses to be exploited, which means that each individual is infinitely enslaved by what s/he owns. Paradoxially, then, this makes Manfred's exploits as much of a capitalistic fantasy as a nightmare, even though he holds the belief that ideological definitions and the need for companies will dwindle once matter itself is upgraded from the mere status of dead object to a collective body of intelligent agents – and here the notion of sentient automation becomes necessary, because, at least in theory, when the process of production becomes self-regulating, the foundations on which free-market economy will become obsolete even though expansion itself will be uncontrollably fast. In its psychological sense, pronia in **Accelerando** represents the belief that most of the sectors and segments in the socio-economic network and infrastructures in this process, if not all – law firms, capital flow, labour-power, info-dynamics, fields of pedagogy, ethics, genetic manipulation, bioengineering, mind uploading, molecular nanotechnology, neuro-modulation, mind-machine interfaces and cognitive enhancers – will move towards a single point as if they unconsciously conspire in favour of the narrative, even though they may be contingent and loosely interconnected with or independent of one another: To behave as if there is a teleological end precisely because there is not, such is the proniac participation the novel asks of the reader. Following Manfred's pronia in both senses of the term, then, the narrative arc remains detached from the major problems which characterize the late capitalistic networks in which the novel begins to take shape: As Manfred proceeds to model business plans to make strangers rich and initiates negotiations for his ideas to build a post-scarcity future on a meta-planetary level which will allow others to live without money like he does in the face of late capitalism, the narrative voice brushes away minute problems such as legal issues by means of plot devices and *dei ex machinis*, just like Oman-Reagan, as noted above, sweeps the profound relationship between the dominant ideology of a historical period and its technologies under the rug, by deferring to AI's better judgment.

Such explicitly selective and neglectful mode of narration encompasses Manfred's character depiction itself, for the majority of his plot revolves around the temporal and informative advantages of his prosthetic existence, which allows him to

live several moments into the future as the collective-machinic consciousness he is wired into can predict the immediate outcomes of the finite possibilities of the present. What the narrative voice suppresses in this selection is the fact that Manfred actually lives *behind* himself: He is arguably the most imprisoned character (voluntarily so) on the edge of losing his identity and being reduced to an object of sexual domination, perfectly in control of the minute processes of the global network in the immediate future but unaware of all the preconscious processes of his own micro-perceptions which formulate his thoughts and decisions before they emerge in language – he is a cross-dresser masochist in his actual sexual life, even though, in earlier stages of the novel, such deviations have already become nostalgic pursuits as real sexual encounters and natural sexual reproduction get more and more outdated thanks to the developments in cryogenics, genetic engineering and digital technology, which makes his ex-wife and dominatrix Pamela the most conservative and human character in the novel, but Manfred's status as an early cyborg only exposes his failure to fulfil the role of a protagonist, or an anti-hero for which he would be too clumsy – deliberately so, compared to earlier cyberpunk stereotypes, since his bodily attachments actually disrobes the masculine disguise those protagonists had to encode over their hidden selves. A purely desexualized ambition “thirty seconds ahead of the curve” (2005: 12) on one hand, an amnesiac shadow to be outrun by such ambition on the other (155), Manfred is a split subject prospectively constructed in accordance with the narrative structure, in which the idea of perfection does not necessarily depend on obstructs and lacks that both generate and defer his utopian vision. His willingness to trade his human subjectivity for some sort of machinic borganism does not even issue from his free will per se; however, he does not have faith in free will to begin with, as he considers the illusion of free will in outdated market economy as a form of oppression and would very much prefer an optimized mechanism behind one's actions rather than deterministic yet highly random processes of dumb matter (26). In this sense, if we consider Manfred as a postmodern Faust with little free will (if any) and no personal interest, it is only expected that at the end of the novel one of his *copies* is presumably

sacrificed by Aineko, basically the devil in disguise, an AI with the body of a cat that Stross considers to be the narrative perspective itself (2013). On the surface, **Accelerando** is a transhumanist family saga which spans across 3 plus x generations (x , because, in the post-Singularity world, the themes of ancestry, generation, adulthood, childhood and humanity become infinitely problematic), but on another level, it is Aineko's *bildungsroman*: Starting her life as a harmless toy-cat, she gradually learns to mimic consciousness, and following each (self-)upgrade, she becomes a superintelligent entity pretending to be in need of human protection, whereas what she really needs is a mouse she deems worthy of playing with. Therefore, she helps her human *owners* evolve into a hyperintelligent transhuman species, until she decides that they will always be too slow to catch up. Even the pronoun *she* is part of her own development: Initially of indeterminate sex, she opts to be a female in the hyperrealized virtual world of post-Singularity “just to mess with the heads of those people who think all ginger cats are male” (60), although she could have equally chosen to be a tortoiseshell or calico male cat. Manfred is gradually pushed into the background as the novel turns into a space opera around his daughter Amber; however, it is Aineko who plays a central role in each generation the story covers, a true *deus ex machina* always lying in ambush and innocently wiggling her rear end to launch at any obstacle that arises against human development, as though she is a beneficial narrative device and a true friend even though she might be the one to put the obstacle in order to test her subjects. If there is a real conflict between posthuman AIs and humans that may be allegorized in Aineko and Pamela (Manfred is nowhere in this equation, except as a clownish and replaceable agent for Aineko who could find another Faust), then this is suppressed and covered by Aineko's *pronoia*-generating perspective, which is the narrative perspective itself. Just as her presence deconstructs Manfred's significance, her final act (i.e., sacrificing one of his copies before she leaves behind what remains of humanity) also discredits itself unless it is a sheer rhetorical prowess she displays regarding its self-proclaimed dishonesty, followed by the theatrical joust into which it lures Manni, the clone and great-grandson of Manfred; it is more of the

superintelligent jester's final hoax than the moral of the story, no more evident or represented than the large scale problems which has to linger in the background of the late capitalistic world the novel depicts.

From the standpoint of such a lack or neglect of conflict, **Accelerando** exhibits a puzzling affinity with the precondition of utopian fiction as theorized by Jameson. In his paradigm, utopian fiction, just like dystopian fiction, is inherently diagnostic; however, while dystopias inflate a specific phenomenon which proliferates injustices and calamities in the represented world, the prerequisite for the conception of a utopian enclave is the *elimination* of that phenomenon, therefore, it is fundamentally a negative displacement which enables utopian imagination, standing as “a clarion call to remove and to extirpate this specific root of all evil from which all the others spring” (2005: 12). The basic challenge of utopian fiction, accordingly, comes from this first step of mandatory oversimplification which subsequently has to map out complexities following the removal of the basic problem and all the secondary issues that we have come to consider inevitable in our nature. In other words, as the utopian program abolishes wage labour, gender oppression, ecological crisis and other forms of exploitation, offering its remedies reducible to a simple and convincing slogan, it should not fall into the trap of simply reproducing middle class comfort in an idyllic form. Jameson's main concern with contemporary utopianism is that the modes of aesthetic production in late capitalism leave little to no room to imagine a world in which, what *the* root of evil has always been since the birth of Utopia – namely money and private property – can be abolished without replicating medieval codes and succumbing to the “aristocratic ideologies of the medieval aesthetic” revolving around the cosmic battle between Good and Evil, deprived of the figural structures of *the savage mind* inherently found in original medieval culture-material as a part of the caste struggle (60-4). He associates the latter with the notion of non-representability in his theory of political unconscious, manifested in peasant fairy tale and medieval allegory, finding its contemporary counterpart in science fiction rather than modern fantasy. In this context, Jameson pays particular attention to the recurrence of the alien body in science fiction, which he considers to

be “an extreme effort of the Utopian imagination” especially due to the incomprehensibility of a realistic utopian enclave in post-industrial capitalism as such: “What, then, if the alien body were little more than a distorted expression of Utopian possibilities? If its otherness were unknowable because it signified a radical otherness latent in human history and human praxis, rather than the not-I of a physical nature?” (118) It thus serves to fill the lack which follows the presumed elimination of social perils and the subsequent absence of a representable and radically different program. Alien forms, in other words, are the result of double negation, unearthing certain features or aspects which have remained insignificant in our world, enriching them with new attributes, resulting in unconventional combinations which might help formulate thoughts and languages beyond our social limits, and at times reflecting the anxieties which result from the inability to do so.

The *puzzling* aspect of **Accelerando** in relation to this scheme does not lie in utopian negation as such, but in what it negates or neglects, for it is here that the selective mode of narration mentioned above acquires significance: In what Steven Shaviro calls the novel's “utter lack of existential anguish or nihilistic posturing,” “surprising, yet ultimately logical, plot twists, [...] insouciance and comic detachment, which do “not lend itself to the sort of terminal-wasteland introspection and film noir recyclings that were the stock-in-trade of the cyberpunk writers” (108-9), **Accelerando** does not eliminate any of the evils we might consider at the root of social or ecological issues. Strictly speaking, it does include an inflation of corporate bodies (a dystopian move, according to Jameson's formula), resulting in a moneyless society (the ultimate utopian condition), leading not to a regression towards minimalistic lifestyles or pastoral modes of production but to an unbridled technological explosion; the dichotomy between utopia and distopia, in other words, based on the dialectic of elimination and inflation of evil, simply blows apart; instead, the novel simply neglects the notion of problematization as such. In an outright tongue-in-cheek manner, Stross thus calls the bluff of late capitalism and its tale of progression, which proposes itself as utopia, and speeds up the dynamics of free market economy without contesting the State and the market per se, representing

their crises not as deep flaws in the system but as petty political in-fights, legal disputes and market manipulations that can be overcome with a sleight of hand as individual troubles just like a right-wing exponent would like to present them. From a relatively modest narrative set in Europe's near future, as a result of this strategy, the novel develops into a space opera with a cosmic scope on par with Golden Age science fiction, to the extent that Stross is able to superluminally approach the opening question of this chapter and reverse it: The question is no more whether AI can help us find alien life or intelligence, but what if AI itself becomes *the* Alien mind. What if the corporations mentioned above – as abstract entities with humans as their organs and legal rights within free market that has to treat them as bodies bound to grow – evolve into autonomous AI entities, no more recognizable within human boundaries or characteristics of capitalism which gave rise to them? As an honest right-wing intellectual, it was a very troubling question for Vinge, which signalled a crisis not only in his following fictional works but for his world view itself; on the level of literature, he beheaded all the alien bodies that had profusely inhabited the realm of science fiction since Stapledon, at the cost of beheading and leaving behind the human body itself (alien bodies did not necessarily have heads to begin with), and over-alienating the human future because, for him, the technological Singularity was a cul-de-sac for the future just like the concept of singularity is troublesome in physics. An avid believer in technological progress, individual integrity, free enterprise and autonomy, he came to view all these values as pre-Singularity assumptions which had to change if we were to cross the threshold and survive on the other side because, otherwise, AIs would simply supplant us; instead, he suggested working towards “Intelligence Amplification” (IA), the reciprocal evolution of human-computer interfaces, which would lead to a god-like species of *übermensch* of some sort, and that would bring forth collective minds beyond our imagination, wide-range forms of communications beyond human reach and new ethical values beyond good and evil – it might even necessitate the enhancement of the brain in its embryonic state (1993). The Singularity, in his logic, is going to happen if it is to happen, since progress is itself an autonomous process, and if we try

to inhibit it then someone else will eventually set it free, perhaps with malignant outcomes; at least, we should try to *tailor* it in a way that humans, albeit not in the human form, can transcend to the other side before it is too late. Nevertheless, as I mentioned earlier, he thought we could not speculate on the other side without being there; our human language alone would be insufficient.

In this respect, **Accelerando** rejects all the cop-outs and loopholes a liberal futurist may resort to: Built upon the slow take-off scenario, instead of Vinge's fast take-off prediction, it examines the simultaneous evolution of AIs and IAs as the alien substances in the bloodstream of our system which Vinge's axe across the human body has revealed. Therefore, right off the bat, the novel diverges from the eschatological undertones of the original concept, making the Singularity-event itself inscrutable over the course of the narrative, dispersing it as a fertilizer to use Stross' words. In a self-reflexive scene of **Accelerando**, Stross issues a discussion among his post-Singularity characters on this specific subject: The scene is set in a remarkably non-standard architecture atmosphere that I outlined at the end of the previous chapter – a post-scarcity world in which subject-object relations are exceptionally fluid – even though the actual setting is a Coke-can-sized spaceship, the *original* bodies of these characters back in Jupiter at this point of the narrative do not live in a less surreal reality; it involves secondary characters Boris, Pierre, Su Ang (who may be simultaneously engaged in other acts outside this scene), and Donna, a journalist who is “surrounded by a haze of viewpoints” provided by a swarm of subjectivities and sousveillance devices recording and participating in each and every activity in the spaceship including this scene (69) – she seems and functions as an agent Pamela has sent in, but she could as well be a posthuman entity in transhuman disguise envisioned by Aineko, who steps into the scene with Donna. The debate I refer to in this irrefutably posthuman setting concerns when, strictly speaking, the Singularity exactly came to pass: Pierre initially believes the instantiation of this intergalactic ship four years prior marks the date of the Singularity, but when faced with the possibility of an earlier date that the Singularity may have transpired when Amber's father helped the uploaded lobsters escape the Earth in the 2010s, as Su Ang

proposes, he changes his mind and suggests even an earlier event, “on June 6th, 1969, at eleven hundred hours, eastern seaboard time, [...] that was when the first network control protocol packets were sent from the data port of one IMP to another – the first ever Internet connection. *That's* the Singularity.” (70). In this unresolved debate, however, the most interesting perspective is propounded by Boris, who simply denies the concept of the Singularity as “infinite rate of change achieved momentarily” and “future not amenable thereafter to prediction by presingularity beings” which, according to him, has not happened, will not happen and it is nothing but “Christian mystic rapture recycled for atheist nerds” (70). I will return to this view later as an expression of the Singularity which completely remains beyond the limits of discourse, for what the novel cannot represent provides substantial implications as to the nature of what it can represent; at the moment, I shall focus on the non-teleological rendering of the concept revealed in this scene. Contrary to Vinge, for Stross, it seems, it is not only us who cannot know what the technological Singularity will be like, the characters who have apparently crossed the threshold are equally clueless, and fixated upon some *telos* while the question should be directed to the present moment they cannot precisely define. Such discrepancy, issuing from the ultimate and unconscious normalization of the rapid changes, is expressed in Su Ang's rebuttal against the denial of Boris:

Here we are, sixty something human minds. We've been migrated – while still awake – right out of our own heads using an amazing combination of nanotechnology and electron spin resonance mapping, and we're now running as software in an operating system designed to virtualize multiple physics models and provide a simulation of reality that doesn't let us go mad from sensory deprivation! And this whole package is about the size of a fingertip, crammed into a starship the size of your grandmother's old Walkman, in orbit around a brown dwarf just over three light-years from home, on its way to plug into a network router created by incredibly ancient alien intelligences, and you can tell me that the idea of a fundamental change in the human condition is nonsense? (70)

The point Stross makes in this passage seems clear: We have been witnessing many breakthroughs, tipping points and thresholds that occur more and more frequently, to the extent that we are blindly *in* the process, our lifestyles are changing so rapidly that we perhaps could not imagine our current selves live in the exact world of objects we were surrounded in ten years ago; but how much of a control do

we have in the process? Even though this process might be unpredictable, non-teleological, and independent of intentional agency, have we perhaps crossed an irreversible threshold that has made human parameters redundant? The human condition may not seem as radically altered as **Accelerando's** post-Singularity setting, is it still not too complex for any individual subject to grasp, no matter how intelligent and educated one may be? What are our singularities? It is in the context of such questions implicated in the novel that **Accelerando** is more of an attempt to make accurate predictions about *the present* than future events, as opposed to traditional science fiction, and this strategy is strikingly parallel to Deleuze's speculative use of mathematical singularity as a part of his quotidian ontology. However, as a neo-Baroque philosopher, Deleuze's ontology strived towards a mode of coexistence for impossible worlds without losing their differences in the grinding processes of communication, signification, subjection, denotation, competition, saturation and domestication. For Stross, in contrast, while this goal should be ideally sought after, a healthy dose of separation is still an option when coexistence leads to all the things we stand against, particularly death; paradoxically, it is when one entity becomes too alien to live with that coexistence is forced upon the oppressed, even if it means death for the former. To escape death, faced with the double impossibility of proper dialogue and total detachment (since the technologies we have created, even if they become complete aliens, might keep defining and/or affecting us), then, requires the art of inventing new relations with separation; much of **Accelerando's** narrative proceeds in the aftermath of such separation, not really presented as a result of real opposition but mere differentiation, so radical that no alien entity which transhuman characters encounter in the outer space will ever be as alien as the posthuman formation which evolves on the Earth.

2.1. The Regime of Accelerationist Pronoia: A Political Dilemma

I will soon return to the subject of the shift from extraterrestrial intelligence to terrestrial *alien* intelligence in the novel, which brings forth the reversal of certain other classical science fiction tropes and themes such as longevity and immortality as a result of this shift via the technological Singularity. For the present, it is worth

making further remarks on the political hues of the novel's apparent lack of conflict which allows the development of this reversal, or its neglect of the dangers inherent in the contemporary socio-economic network which it depicts, because such narrative strategy attaches the work to the polarizing discourse of accelerationism, which at least dates back to the 19th century and has been popularized by French intellectuals in the 1970s and British writers from the mid-1990s onwards. In fact, it is possible to define the idea of the technological singularity as a straightforward product of this discussion, since right-wing extropians and singularitarians by default speak from an accelerationist perspective, even though it is hard to consider the presence of two opposing ends in the idea of intensifying techno-capitalization processes as a symmetrical discussion, for the right-wing technocrats usually propose their arguments in a highly technical and depoliticized form, and when they do speak in overtly political terms, more often than not, they reveal the regressive nature of their self-proclaimed progressive ideology, whereas left-wing accelerationism draws more on philosophy, art and direct political action than glossy rhetoric of technocratic fantasies. Raymond Kurzweil's work in this context, especially his 2005 book **The Singularity Is Near: When Humans Transcend Biology** is perhaps the most well-known example of secular right-wing promotion of exponential technological growth, which was praised by Bill Gates, adapted to the documentary film **Transcendent Man** by Barry Ptolemy, as well as influencing science fiction films such as **Lucy** by Luc Besson. According to Marcel Danesi, Denis Villeneuve's 2017 film **Blade Runner 2049** is a reference to Kurzweil's estimation that complete transformation of the technological Singularity will have transpired by the year 2049 when the capabilities of the entire human race will be achieved with a cost of one thousand dollars (164). Kurzweil's book, published several months after Stross' novel, reads like 450-page-long technical elaboration of all the ideas fictionalized in **Accelerando**, including mind uploading, planet-sized supercomputers, overcoming the requirement of biological bodies, nanobots (in the form of smart molecules), self-replication, multiple realities, combination of “the pattern-recognition ability of biological human intelligence and the speed, memory capacity and accuracy, and

knowledge and skill-sharing abilities of nonbiological intelligence” (38), resulting in an entirely new post-Singularity godlike species. Since the two works were published in the same year, and Kurzweil's book is apparently non-fictional, the general misconception is that Kurzweil influenced **Accelerando** which was published earlier, even though Stross strongly dislikes Kurzweil's work and publicly accuses him of plagiarizing other people's ideas and presenting an eclectic gibberish without giving credit to original writers (2013). Nevertheless, the two works are strikingly similar (except that Kurzweil really believes in the ideas he proposes), and the only major difference between the two Singularity models is that Kurzweil, like Vinge, through minute calculations of exponential growth of technology and human capacity, predicts a relatively sudden Singularity beyond which the fabric of human history will be ruptured, whereas Stross in **Accelerando** depicts a milder process in which human characters gradually achieve transhuman capabilities more in tune with the exponential growth of machine intelligence beyond non-augmented human limitations, making the event of Singularity even harder to detect in the novel. The most striking parallel between the two texts, however, is Kurzweil's radical depoliticization of his predictions, which eliminate all socio-economic issues and existing political problems, much less those which may arise within the five decades he proceeds to extrapolate. In this sense, he presents even *the idea* of the Singularity as a sort of religious experience, an epiphany which one must strive to achieve by intensifying technological growth, which he studies as an autonomous entity outside historical conditions, doomed to be rendered obsolete beyond human control anyway; indeed, his total neglect of political concerns has astounded those who have examined the ideological implications in Kurzweil's work (Shaviro, 2009). Moreover, the autonomy he assigns to exponential technological growth, for him, is not restricted to the changes in the computing technology in 20th century, or electronic technologies in the 19th century; he presents it as an outcome of natural history itself, which he views to proceed according to the law of accelerating returns (Kurzweil, 2005: 29). Put simply, if we invert the course of history and make a list of all the paradigm-shifting inventions, leaps, thresholds and eras (smart phone,

computer, television, radio, rocket technology, telephone, the Industrial Revolution, the telescope, printing, mathematics, writing, agriculture, cave paintings, Paleolithic tools, human evolution, age of reptiles, the Cambrian explosion, photosynthesis, the emergence of unicellular organisms, the chemical antecedents of organic life, all the way to the Big Bang), we observe that each step takes longer and longer, the most recent ones are separated by a few years, the oldest ones by billions of years – which means that the next step always transpires faster than the previous one, pointing out

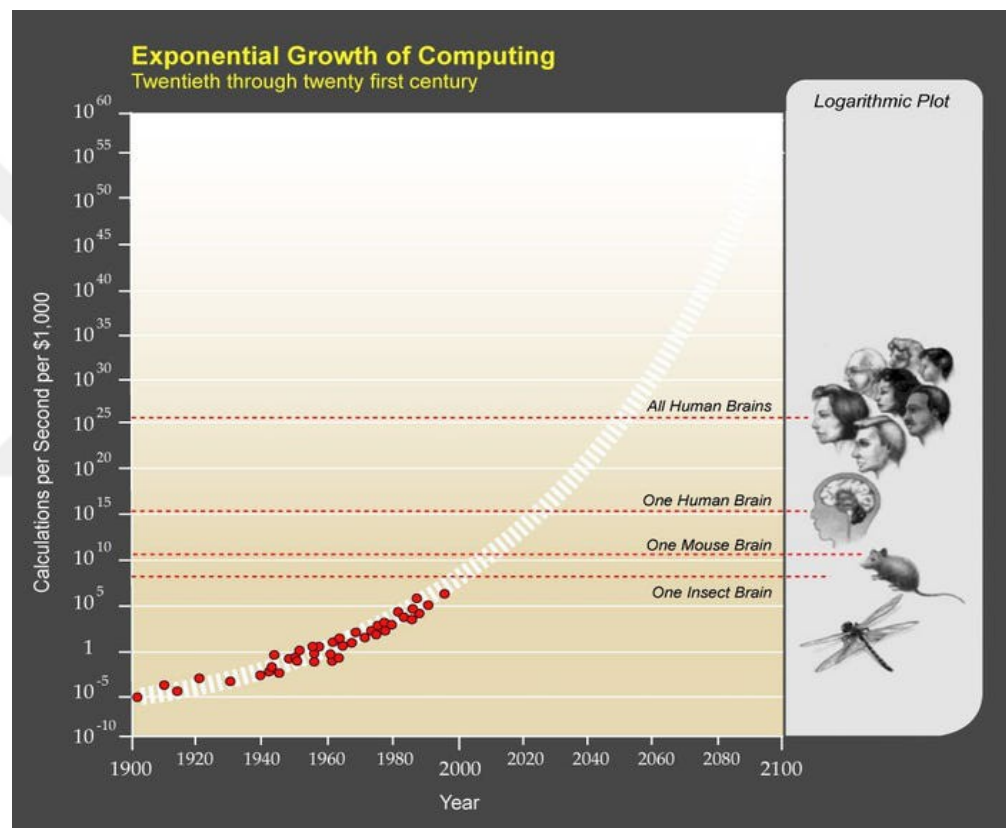


Figure 2.2: The Kurzweil Curve and the Law of Accelerating Returns.
Source: Drake Baer. *Business Insider*, 2015.

to the inevitability of the technological Singularity, since technology is the most efficient and ultimate expression of this transhistorical phenomenon.

It is not necessary to point out the flaws of this interpretation of history, which are perhaps too obvious even at anthropocentric measures. And by now it should be recognized that this idea is founded on the speed explosion thesis that I outlined in the previous chapter, derived from Moore's Law which was exclusively

about the doubling capacity of semiconductor circuits but later appropriated for technological progress in general. Gerald S. Hawkins, for instance, also builds his ideas upon the increasingly faster enrichment of the human perspective subsequent to each technological leap (1988), but Kurzweil's appeal issues from the apparent denial of the historicity of his own claims, and the naïve presentation of his utopian vision as though nature has somehow conspired to actualize it for billions of years. In other words, it has nothing to do with a political agenda or ideology, according to Kurzweil. This should come as no surprise, I think, since it is evident that depoliticization has always been a part of hegemonic discourses, no matter whether it is wielding totalizing and teleological meta-narratives or subtle neoliberalist ideologies at work in everyday life. Another instance is the founder of the Extropy Institute and English philosopher Max More, for whom the development of transhumanist technologies is an evolutionary obligation. At first glance, his philosophy is well-intentioned, as intelligibly written as a self-help book (despite the complexity of technologies it proposes, particularly mind uploading), and radically progressive in its aggressive rejection of all traditions and ideologies; however, behind this intelligibility lies a painful effort to polish and obscure the regressive and narrow-minded assumptions inherent in his extropianism, which become self-evident once we read between the lines. In his 2003 essay "Principles of Extropy," for instance, he asserts the necessity of economic growth for perpetual technological progress, "to find resources to enable growth, and [...] combine mindful growth with environmental quality [...] affirming a rational, non-coercive environmentalism aimed at sustaining and enhancing the conditions for flourishing." One may detect nothing wrong or ideological with these assertions, until it is realized that his concept of economic growth relies on endless and aggressive *consumption*, which he thinks is what enables us to access more sources and expand, rather than conservation of sources – which is associated with entropy, the nemesis of his philosophy. Therefore, his fancy term *non-coercive environmentalism* is simply nature's direct use-value in a rationally managed capitalistic growth: Exploit natural sources if it helps the growth, conserve them if its immediate use is likely to do more harm than good for progress.

This is unmistakably clear in the FAQ section of his Extropy Institute, which bluntly denounces ecocritical movements as fundamentalist (making it clear what More might envision *coercive* environmentalism would be), suggesting a “balance between humanistic values and preservation of the non-human world” instead, recognizing the contradiction between the two, at the same time strongly endorsing “the notion that the highest product of human culture is the scientific method and that the 18th century Enlightenment represented the real birth of a rational human civilization based on the scientific method and a fundamental valuation of human liberty” (Transhumanist FAQ 5.9). How precisely the 18th century Enlightenment individualism and humanistic values can be maintained in a digitalized, bodiless form of existence remains unclear, but these lines are more like Freudian slips that reveal the *coercive* and narrow-minded attitude of this so-called infinitely open-minded, progressive and libertarian philosophy towards green and leftist movements, as well as its deep association with traditional values – which would not be a problem if it did not so vehemently reject any concept of tradition. As I mentioned earlier, Vinge, an honest right-wing intellectual, acknowledged the contradictions issuing between his own beliefs and the deconstructing concept of the Singularity emerging from those beliefs – perhaps, this acknowledgement has much to do with the fact that Vinge is a science fiction writer and his intellectual production is naturally self-critical, but when the discourse shifts to the self-assured rhetoric of non-fiction, it is presented in depoliticized and highly masked forms according to the rules of our digitalized world where, as mentioned in the context of **Accelerando's** opening (and partly due to the needs of consumerism), problematization itself has become a problem, and the spokesmen of the apparent opposition on the surface, as intellectual Messiahs, have become the authority previously held by political power.

One of the rare exceptions to this general rule of depoliticization is politically explicit style of Nick Land, a British philosopher and co-founder of the Cybernetic Culture Research Unit at Warwick University. Closely familiar with the works of post-structuralists, musicology, Gothic literature and cyberpunk, he was an influential figure in the 1990s, affiliated with musicians, Afro-futurists and leftist

intellectuals such as Mark Fisher, Sadie Plant and Kodwo Eshun, despite being a right-wing advocate himself. Like Kurzweil and More, he promotes the intensification of technological development, but overtly in the service of the Capital itself, which, for him, is only hindered by the State and politics. Applying political discourse to abolish politics, his earlier views were close to anarcho-capitalism; later on, his main target has increasingly become democracy itself, and, conceding that one should save the State from democracy if it is impossible to abolish the State, he has come to affiliate himself with the alt-right neo-reactionary movement and argue for a government form called *neo-cameralism*, ruled by a CEO whom the shareholders of sovereign corporations elect “to buy out the real stakeholders in sovereign power, not to perpetuate sentimental lies about mass enfranchisement” (“The Dark Enlightenment”), moving towards what he calls the Technomic Singularity, technology and capitalism liberated from its human drag (2017: 517). One need only look into Land's own passionate remarks to his unrelenting faith in the Capital, his devout assertion that capitalism has to be preferred over life because what we see as threats to the ecosystem are in fact the lifestyle of capitalism which is fundamentally beyond and superior to biological life (“Transcendent Miserablism,” as can be understood, refers to anti-capitalists and capital-sceptics):

Capitalism is still accelerating, even though it has already realized novelties beyond any previous human imagining. After all, what is human imagination? It is a relatively paltry thing, merely a sub-product of the neural activity of a species of terrestrial primate. Capitalism, in contrast, has no external limit, it has consumed life and biological intelligence to create a new life and a new plane of intelligence, vast beyond human anticipation. The Transcendent Miserablism has an inalienable right to be bored, of course. Call this new? It's still nothing but change. [...] Life continues, and capitalism does life in a way it has never been done before. If that doesn't count as 'new', then the word 'new' has been stripped down to a hollow denunciation. It needs to be re-allocated to the sole thing that knows how to use it effectively, to the Shoggoth summoning regenerative anomalization of fate, to the runaway becoming of such infinite plasticity that nature warps and dissolves before it. To The Thing. To Capitalism. And if that makes Transcendent Miserablism unhappy, the simple truth of the matter is: Anything would. (2019: 626-27)

In any case, when one speaks of prospective projections which require the reinforcement of capitalization, or attitudes which indispensably neglect the socio-political aspects of such intensification, and designate the concept of technological singularity as a fantasy usually conjured by the right-wing proponents of such

attitude, it should be kept in mind that the term right-wing here refers to economic tenets and has nothing to do with conservatism, populist politics or any stereotypical connotations the term might evoke; instead, the discussion involves liberal intellectuals, laboratory scientists, engineers, entrepreneurs and other technocrats with little to no affiliation with religion or anything to conserve other than the Capital itself. As can be seen in three radical positions mentioned above, the changing dynamics within the 21st century info-capitalism leads to a certain mobilization and diversification of right-wing positions as well, ranging from depoliticized consumer-friendly anticipations presenting free market as utopia, to a clear-cut submission to the Capital with little regard to mass enfranchisement, even though it is still possible to draw a parallel between these views and the more conventional right-wing politics. The more interesting parallel in the context of this study, however, is exactly the same stance upheld by by certain leftist thinkers and writers, obviously resting on opposing premises and for totally different ends. The idea that the most fundamental counteraction against capitalism is not to dissent, upset, overcome, or tame it through benevolent reforms, or anticipate its destruction on account of its own inconsistencies, but but to actively intervene in its processes to intensify and expedite its alienating, exclusionary, eradivative propensities may not sound like an orthodox Marxist one, and the contemporary leftists who are proponents of this view have been called political heretics (Mackay and Avanesian, 2017). Just like the contemporary right-wing elitists in this discussion do not easily fit into conventional categories even though the traces of their attitudes can be found throughout political history, this unpopular leftist position is admittedly unconventional but not entirely new, for we can easily find its origins in the works and political actions of none other than Marx himself, who on more than one occasion suggested deepening the capitalistic modes and relations of production as well as the social relations it generates, certainly not as an end in itself but as a means of advancing the self-negation of capitalism which he considered inevitable (1996: 536). A well-known instance of such attitude is his voting in favour of free market economy at the Free Trade Congress in Brussels in 1848, where he put forward his conviction that the

uprooting nature and plasticity of capitalism should be defended in order to have it see its own end, for the most radical remedy in his historical analysis suggests that a more supple and complex system is needed to supersede the previous one, and, therefore, it would be a regression to old rigid and conservative systems to try and simply overcome capitalism without re-adjusting revolutionary programs according to its own revolutionary dynamics which will inevitably destroy itself, and preparing historical conditions in the meantime which includes the active augmentation of its very own dynamics ("On the Question of Free Trade"). This approach can be considered as a part of Marx's teleological view of history, but he is not the only major philosopher critical of the Western civilization who nevertheless argues for precipitating the trajectory of social formations. Nietzsche is another founder of discourse with similar insights as to the fate of progressivism, despite having a non-linear view of history and not nearly favourable opinions on socialism: His well-studied *genealogy of morals*, rejecting teleological interpretations, maps the continuities, thresholds and similarities among the Western value systems, particularly Christianity and Enlightenment, both of which Nietzsche finds problematic and inherently self-destructive, resulting in a prospective vision and an attitude towards immediate issues not very different from those of Marx. This comparison dates back to French post-structuralists, who opposed Freudo-Marxist perspectives which were prominent till the 1960s, since they considered psychiatry (and psychoanalysis) as a bourgeois institution which had, to put it simply, replaced the Church and its norm-establishing, guilt-generating and confession-extracting functions. Here once again I specifically refer to Deleuze and Foucault, as the former's post-1968 philosophy shifted towards political accelerationism, with a significant influence of the latter: If we recall the former's neo-Baroque interpretation of Foucauldian resistance as a preceding ground of power-relations that I outlined earlier, its coherence with accelerationism becomes clear, because if we define resistance as an act of inventing impossible worlds and incorporating them into the power-system of an episteme which will inevitably appropriate and commodify them, resistance then becomes a perverting yet enriching force *for* that system, not a

set of escapist, localist or destructive strategies. Instead of offering an alternative or a way out, then, this approach seeks a way *through* capitalism, which could be rendered unrecognisable (to the extent that it would enforce a post-capitalistic future) by an active and revolutionary participation in its dynamics. One of the most famous works which proposes this philosophical standpoint is the two-volume collaboration of Deleuze with Félix Guattari called **Capitalism and Schizophrenia**, the first volume of which puts forth a synthesis of Karl Marx and Friedrich Nietzsche and a radically non-anthropocentric ontology which encompasses biological life as well as inorganic existence by defining the universe as an assemblage of desiring-machines. In this particular volume, referring to Nietzsche's fragment titled "The Strong of the Future," they re-popularized the idea which I have been briefly mentioning and which I think is strategically applied in Stross' narrative, namely the idea of accelerating capitalistic networks for revolutionary ends:

So what is the solution? Which is the revolutionary path? Psychoanalysis is of little help, entertaining as it does the most intimate of relations with money, and recording—while refusing to recognize it—an entire system of economic-monetary dependences at the heart of the desire of every subject it treats. Psychoanalysis constitutes for its part a gigantic enterprise of absorption of surplus value. But which is the revolutionary path? Is there one?—To withdraw from the world market, as Samir Amin advises Third World countries to do, in a curious revival of the fascist "economic solution"? Or might it be to go in the opposite direction? To go still further, that is, in the movement of the market, of decoding and deterritorialization? For perhaps the flows are not yet deterritorialized enough, not decoded enough, from the viewpoint of a theory and a practice of a highly schizophrenic character. Not to withdraw from the process, but to go further, to "accelerate the process," as Nietzsche put it: in this matter, the truth is that we haven't seen anything yet. (239-40)

"*Accelerate the process*": For **Accelerando**, this would make the perfect slogan which Jameson suggests that every utopian fiction must have. However, as mentioned above, **Accelerando** lacks not only the abolition of the root of evil from the social world (Jameson's prerequisite for a utopian program) but the very notion of evil itself, because *accelerating the process* paradoxically entails a certain disregard for the problems arising from the process which, at least initially, persists in the novel. In this respect, the discussion as summarized above is important for several reasons. First and foremost, it challenges one of the fundamental distinctions in Jameson's analysis, which is based on the predilection for science fiction over fantasy, for he associates the latter with nostalgia for conservative right-wing values

and religion, while the former has the tools for imagining a radical, dialectically materialist world (even though he makes an exception to the use of fantasy in the service of science fiction, as in the works of Ursula K. Le Guin). As I discussed, the application of science to formulate right-wing fantasies with no nostalgic concern, or the conception of advanced technology as a form of religion with post-Singularity as its afterlife makes such distinction untenable. Secondly, for Jameson, true dichotomy exists between anti-utopian and anti-anti-utopian positions rather than utopia and dystopia – since a dystopian work might reveal a utopian message or imply a utopian vision beneath it – and this dichotomy is entirely grounded on economy: Because capitalism strictly requires scarcity and limited sources, as well as proceeding through repeated production and recovery of crisis, according to him, there is no such thing as a right-wing utopia beyond nostalgic fantasies, hidden as they might be behind the notion of progressivism. Therefore, in his theory, normalization of social perils, defining human nature – and the nature in general – as inherently competitive, and internalization of ideologies as immutable sets of truth are all strategies of the anti-utopian position, which for him is a rightist one. However, such dichotomy does not hold true now, inasmuch as late capitalism can generate its own utopias better than ever, thanks to advanced technologies which deeply define our modes of existence; as evidenced above, the same exact strategy can be proposed for socialist and capitalist objectives alike. Stross conducts the identical accelerationist strategy in his narrative mode itself, eminently conscious of the equivocal aspect of it which complicates the conventional duality of utopia and dystopia. As I will soon discuss, the novel does contain an *alien utopia* of some sort by way of the technological Singularity, but in doing so, if we can use a Deleuzian expression for it, it approaches every single generic category and science fiction trope from behind: For instance, a post-Singularity utopia technically means the end of humanity, but the novel does not depict any kind of extinction as an apocalyptic work would (the only “murder” occurs on a virtual platform where physical injury is impossible, through an extraterrestrial glitch which is fixed at once). What is more, such technical extinction paradoxically brings forth a proliferation of human subjects, who end up

in an automated platform which could not be further from a dystopia. In this respect, if the accelerationist position is a political heresy on the left, **Accelerando** commits a double heresy by taking it to the logical conclusion of capitalism and applying that horizon event for its literary inventions; therefore, it would be a mistake to read the novel as a simple satiric commentary on the utopia of capitalism, namely the technological Singularity.

Once again, this complication arising from the conditions of early 21st century is not only evident in the narrative progression and its lack of conflict; right off the bat, it is also reflected in protagonist Manfred Macx's ambiguous position, as he is literally thrown into the unoccupied zone between the two opposing views discussed above: "There are lawyers in San Diego and Redmond who swear blind that Macx is an economic saboteur bent on wrecking the underpinning of capitalism, and there are communists in Prague who think he's the bastard spawn of Bill Gates by way of the Pope" (5). If Manfred Macx is both the poor man's Elon Musk and *Marx 2.0*, profoundly related to his split character mentioned earlier, that is because his very existence echoes the anxieties of the early 21st century, particularly Stross' own anxieties as a web programmer who found it humanly impossible to catch up with exponential growth and the pace of change the world was subjected to. Speaking of the character's origin, he recalls caffeinated nights, nervous breakdowns and psychotherapy bots, which forced him to ask the question what kind of person could "actually live on the edge of a singularity, keeping pace while all around them the world is melted down and re-forged monthly, daily, hourly" ("On Beginnings"). The immediate answer is Manfred, whose historically conditioned persona induces a world vision which transcends history; here comes the accelerationist intervention of the Singularity metaphor as a field of art, which simultaneously intensifies and collapses the gap between the physical experience of the subject and the complexity of conditions (i.e. dark precursors) becoming increasingly alien to each other – a process which is still prevalent in the post-Singularity world of **Accelerando**, as shown in the alienation of Boris with respect to the conditions of his posthuman experience, in the debate quoted earlier – such is the gap which art collapses,

intensifies and enriches. In the pre-Singularity world, then, the novel needs Manfred's body instead, not as an organic embodiment of some sort, or as a naturally intact agent, but an assemblage of virtual, actual, biological and synthetic machineries, a receptor and a transmitter plugged into others which collectively accelerate the alienation, *desiring* alienation. This is strikingly parallel to the views of the Laboria Cubonics collective, an accelerationist, transnational, technomaterialist, anti-capitalist, anti-naturalist and transfeminist/queer collective (referring to their philosophy as *xenofeminism*), founded by British academic Helen Hester: In a much Deleuzian manner, they reject identity politics, viewing it as the other side of Eurocentric and patriarchal capitalism, in which only the white, male and middle class can have an access to the seemingly sexless, raceless, and class-free Absolute, while all the rest are forced to define themselves in relation with a minor group, pushed into harmless localist and naturalist political discourses. The solution, for them, is not to strictly adhere to body politics, strive towards non-alienated modes of existence, which implies not only a religious glorification of nature and melancholy, but also an entrapment in the fields assigned to us (i.e., body and feelings for women, mind and rationality for men, nature for women, technology and culture for men, passivity for women and activity for men), which do not lead to emancipatory progress as we have come to accept or criticize, but to perpetual blockage for control and consumption. Instead, in their 2015 manifesto “Xenofeminism: A Politics for Alienation,” they advocate a radical reclamation of “alienation as an impetus to generate new worlds,” an active participation in the processes of technological production instead of staying critical and ignorant of them, which is the only way to unclog the vessels of info-dynamics and to establish a future not at the mercy of Eurocentric patriarchy. In her 2018 work **Xenofeminism**, Hester views social media as one of these blockages, even though it is what mistakenly comes to mind in the context of recent progress: For instance, the seemingly queer-friendly position of these platforms, according to her, is just a tool to identify “the attitudes, capacities, affinities, consumer behaviours” of users based on self-identified genders (31) – therefore, something like Manfred's cyborg vision

based on peer-to-peer file sharing model would be a xenofeminist intervention, a guerilla war against the monopoly of these platforms, copyright holders, profiling practices, which *clean up* the scene and block the path of a possible baroque burst of some generic, bottom-up, organized, collective and intersectional universality – this might be why, social media today is becoming a theatrical stage for a feeble dispute between politically correct leftists and alt-right movements whose views are levelled:

If ‘cyberspace’ once offered the promise of escaping the strictures of essentialist identity categories, the climate of contemporary social media has swung forcefully in the other direction, and has become a theatre where these prostrations to identity are performed. With these curatorial practices come puritanical rituals of moral maintenance, and these stages are too often overrun with the disavowed pleasures of accusation, shaming, and denunciation. Valuable platforms for connection, organization, and skill-sharing become clogged with obstacles to productive debate positioned as if they are debate. These puritanical politics of shame—which fetishize oppression as if it were a blessing, and cloud the waters in moralistic frenzies—leave us cold. We want neither clean hands nor beautiful souls, neither virtue nor terror. We want superior forms of corruption. (Laboria Cubonics, 2015)

While it is not clear what alternatives might be generated by xenofeminists, one of the most recent collectives in the accelerationist discourse (or by others, of course), their accelerationist criticism is parallel to the dynamics of **Accelerando**, insofar as it asserts the importance of staying *in* the processes of capitalism and seeking an alternative way *through* it, aware of the fact that it is but a gamble, for there is no essential outcome to be accurately predicted awaiting at the end of the tunnel (the end of the tunnel may not even exist), and this position is also assumed by right-wing extropians, as mentioned above. Such is the pronoiac nature of Manfred, and the issuing narrative formation which disinterestedly moves towards the technological Singularity: Always discovering a pragmatic element in the historical moment, conscious of its ambiguous potential, still pretending as if it will move towards the intended goal. Indeed, the system of pronoiac in the context of feudalism is such an alternative, so is peer-to-peer file sharing in the context of late post-industrial capitalism, and what is more, psychological pronoiac appropriated for the narrative formation is also an alternative which has usually remained unrealized in neo-Baroque narratives which, according to Deleuze, revolve around a mixture of two semiotic regimes, namely the imperial regime of *paranoiac* interpretation, a model based the sign of the despot in the centre and the sign of the scapegoat on its

limits, and the totalitarian regime of *erotomaniac* passion, referring to the social formations and narratives where there is no central/despotic sign (or the scapegoat), but subjects as bundles of signs are linearly formed and dismantled in their post-Lacanian pursuit and internalized guilt (2006: 15). The former is a circular formation where one sign refers to another *ad infinitum* in the form of excessive interpretation, to the extent that the scapegoat of the system might be appropriated so that the regime of signs can expand (as in Kafka's novels, or Vinge's interpretation of the Milky Way as a concentric order of being), whereas the latter is a serial attempt to explicate the encountered worlds which remain mysterious, and become the object of desire to reveal the imprisoned desires of the pursuer (such as Proust's or Stapledon's narrator). **Accelerando**'s pronoiac formation is not essentially outside this aesthetic formulation, since pronoiac would not even make sense without paranoia, and the dissolution of Manfred's body (alongside technological pathways independently yet simultaneously moving towards singularity) is de-sexualized redirection of erotomaniac passion itself; the point is to find a third element within the system in order to intensify and complicate it, open up a new trajectory and generate new worlds through it, rendering the differentiation of the system impossible with its former paradigm.

Before examining the effects of this trajectory in the novel, it is worth dwelling a bit more on the historicity of this complication, especially in the context of generic categories beyond simple dualities, this time relating this strategy to a third element in the 19th century industrial capitalism. Interestingly, in his 2016 study **Four Futures: Lives After Capitalism**, Peter Frase examines the 21st century techno-capitalistic networks in **Accelerando** in relation to rentier capitalism, a 19th century term referring to landowners and those who live off interest payments without any contribution to capitalist production. In the Marxist use of the term, it is distinct from industrial capitalism based on reinvestment and employer-employee dialectic, both an obstruct before the compulsory expansion of capitalism and its true nature to which it is bound to turn due to the deficiencies of its organization. Frase borrows the term to define contemporary science fiction beyond the duality of utopia

and dystopia: In his spectrum, based on equality-hierarchy and abundance-scarcity pairs, *rentism* defines a system in which an agalamic, post-scarcity economy prevails, but there is still some kind of hierarchy. There are three more possible systems arising from the combination of these pairs, namely *communism*, which simultaneously contains a post-scarcity economy and an egalitarian society, *socialism*, which refers to an equal society where poverty is shared, and *exterminism*, which is both hierarchical and limited in its sources. In conventional terms, communism and exterminism can be considered as utopia and dystopia, while rentism and socialism are in the middle of the spectrum, rentism being closer to communism in terms of utopian possibilities it might generate. The reason he chooses the term rentism is that, just like rentier capitalism, the systems depicted in rentist science fiction include some type of property which replaces the capital, and those who have an access to such property are told how to use it by its owner, even though the owner is not the one who has produced it, or its production is virtually free. Therefore, according to him, intellectual property (especially copyright laws on softwares, algorithms, blueprints, virtual patterns and programs) is the contemporary extension of rentier capitalism. While Frase's main subject of analysis in his category of communism is **Star Trek**, the major work he examines as an example of rentism is **Accelerando**, as it indicates a shift of paradigm in the economic structure, with industrial production getting less and less important, intellectual property replacing the hierarchy of capital. In such a world, Frase defines Manfred as an “idealist hacker character,” a copyleftist set to distribute unauthorized digital material, violating the entire system of rentier logic (2016: 47). However, his analysis of Stross' near future narrative renders even such disrupting figure redundant, because the entire purpose of creating such a fictional world, for him, is to show its unsustainability (which is why he finds rentism the closest category to the more utopian one, communism). The rationale behind it is that, the shift from conventional commodity fetish to intellectual property brings forth an entire change in object relations: The redundancy of raw materials and physical exploitation, combined with complimentary (re)manufacturability of intellectual property, forecloses the possibility of scarcity,

while technologies such a system relies on increasingly shut the door on human labour. As a result, the system has to invent new forms of hierarchy, adopting decentralizing strategies which would destabilize the hegemony of its intellectual-capital, or production would exceed consumption and, in the absence of employment beyond meaningless make-work, the system would wither away. Frase's analysis of rentier info-capitalism is thus the return of capitalism back to its inefficient roots following the phase of over-efficiency, a shift from body to mind which in turn eclipses its human origins and usurps capitalism. Whatever the case may be, the *anti-Star Trek* elements of Stross' rentist world, according to Frase, are only there to disappear, which is why he does not consider it necessary to analyse the remaining two-thirds of the novel, which takes place in the outer Solar system. For him, the doom of such a system is inevitable, and what matters is whether people would “start to ask why the wealth of knowledge and culture was being enclosed within restrictive laws, when 'another world is possible' beyond the regime of artificial scarcity” (Frase, 2016: 59).

Even though Frase's study supports my reading of the text, his final analysis does not seem to do justice to the entire novel, because, Stross undoubtedly does more than just show the unsustainability of the world he depicts, nor does he seem to think it is necessarily communism which will follow the demise of capitalism. Were we to constitute a political manifesto acknowledging the realistic aspects of the novel's opening, Frase's resolution would be more or less complete; however, as to the rest of the text, one has to ask what kind of “people” Frase refers to when he finds hope in people who would rise against the crisis of rentier capitalism, because the novel is really about two lines of technological evolution, namely *partials*, augmented human subjects (who are quite alien to us) and pure post-human AI entities. Secondly, the novel facetiously does its best to still maintain capitalism way after it is evident that it has become obsolete; instead of beating it, the novel insists on riding the dead horse of capitalism until it decays, only to uncover its backup neural network, multiply and simulate it into virtual and actual bodies, because there is more than one way to its demise (and in *Accelerando*, it is much more silent than

Frase's anticipation), more than one possibility as to what might replace it, or coexist with its corpse, which might see its resurrection in any case. It takes different routes for post-human AIs and partials, and, the former case, I think, represents Stross' struggle to represent his utopia, and his acknowledgement that we simply do not know what might come next, even though he keeps examining ideas instead of putting an end to his narrative at the point of technological singularity, which is why he turns the question of right-wing elitists regarding AIs and Alien intelligence on its head. This is the issue I should now examine.

2.2. Redefining AI as Alien Intelligence or Vice Versa

The real Alien in **Accelerando** is not to be found in first contact stories. Extraterrestrial entities do exist, but they are incorporeal excrements and leftovers of extinct post-Singularity civilizations, appearing throughout the novel as hitchhikers, parasites, scams, glitches across spacetime gateways, negative-sum gamers and “hicks [...] who get hands on toys left behind by much smarter guys” (77). Even though it is still Aineko, the only AI of earthly origin represented in detail that decodes the extraterrestrial transmission on the orbit of the brown dwarf *Hyundai*^{+4904/-56}, it does so not through sophistication expected in the classical AI scenario but actually oversimplification: “Besides, it was fun watching the idiots trying to 'crack the alien code' without ever wondering if it might be a reply in a language we already know to a message we sent out years ago” (62). What Aineko refers to is a crustacean proto-language, derived from the stomatogastric neural network based on the components within the ganglia of spiny lobsters, the synapses of which were mapped and simulated to run spaceships in the Oort Cloud in the first part of the novel. The resulting contact involves *the Wunch*, a group of obscure, trade-orientated and bodiless aliens that have taken up lobster interfaces to communicate with the main subjects of the narrative. Their further deep-space explorations lead them into another zone in which human beings are used as currency, a situation they evade by outsmarting a monolithic alien parasite called *the Slug*, which they take with them back to the solar system, and use its scam nature to infect *Economics 2.0* that has replaced capitalism and rendered even enhanced human beings obsolete:

Actually, the Slug is a surgical disguise. Both it and the quasi-fungal ecosystem have been extinct for millions of years, existing only as cheap stage props in an interstellar medicine show run by rogue financial instruments. The Slug itself is one such self-aware scam, probably a pyramid scheme or even an entire compressed junk bond market in heavy recession, trying to hide from its creditors by masquerading as a life-form. But there's a problem with incarnating itself down in Sirhan's habitat – the ecosystem it evolved for is a cool Venusiform, thirty atmospheres of saturated steam baked under a sky the color of hot lead streaked with yellow sulphuric acid clouds. The ground is mushy because it's melting, not because it's damp. (108)

As for these deflated extraterrestrial encounters, to which I will return in more detail, at this point it suffices to say that they are not really what *the Alien* is in the novel. The main subjects of the work, technologically enhanced human beings (i.e., transhumans), can communicate with them through translation interfaces and virtual settings: They can outsmart each other, work symbiotically, and seem to be on an equal footing as the human subjects turn more and more into the excrements of the system they have built. Instead, the real Alien of the story are post-human AIs at the centre of the solar system, both the perpetrators and the product of the technological Singularity. Advancing a lot quicker and farther than it is feasible for upgraded subjects of the narrative, they surpass the perceptive capabilities of human beings to the extent that not only are their possible demands totally beyond the grasp of the partials, the so-called human subjects of the novel, they are also non-communicable to the reader and non-representable within the narrative itself. As they dismantle the rocky planets, satellites and asteroids in the solar system and replace them with *computronium*, the inner solar system literally becomes the black hole of the narrative, whose linguistic means becomes increasingly incompetent as it conveys what radiates from those post-human AI structures, turning the entire solar system into a Matrioshka brain composed of nanocomputers which constitute Dyson spheres within one another encircling the Sun and capturing its entire energy. As a differential condition of possibility in such a post-Singularity world, this alien black hole is not comprehensible in itself, neither is it *compossible* with organic life as we know it. As for the incomprehensibility, the issue is well beyond the fact that the computationally augmented subjects of the novel are unable to communicate with post-human AIs and that they end up sending extraterrestrial viruses into the post-human system that can integrate with it, for the reverse is actually true. According to

the theory of mind proposed in the novel, consciousness is a by-product, or the inward inflection of the arms race in the animal kingdom which requires organisms to internally simulate the possible behaviours and see through the perspectives of rival species: "Put the two things together, signalling and introspective simulation, and you've got human-level consciousness, with language thrown in as a bonus – signalling that transmits information about internal states, not just crude signals such as 'predator here' or 'food there'" (152). As opposed to this flawed by-product which not only fails to comprehend all the entirety of contingent set of processes made up of minute perceptions that make others behave in a certain way but also what lies behind our own motivations, the meta-consciousness post-human AIs possess is able to chart inner models of human cognition and neural networks of biological bodies in a much more precise way than the enhanced human characters of the novel, who can nevertheless switch their faculties on and off at will as well as split into a myriad of copies for multitasking purposes. As a result, the problem of impossibility is complicated further when historical, pre-Singularity human subjects find themselves re-simulated and re-embodied on the periphery of the solar system, with their memories and inner states as well as biologically adaptable milieux which might be virtual or actual. In other words, even though the non-representable megastructure the solar system evolves into does not support organic life, the side effect of this alien system is actually immortality, or we should say, *undeath*. This is an entirely distinct way of handling the theme of immortality compared to its occurrence in mythology, fantasy and science fiction: Not as a manifestation of hubris, or an unconscious struggle to counteract the experiential, spiritual or material limitations imposed upon the individual by historical conditions, but as a simple by-product of the evolution of post-human AIs, as an uncontrollable outcome of machinic progress. Earlier in the novel, before the technological Singularity, there is a comical element of anti-aging technologies as it occurs in many science fiction scenarios; however, it is presented as a sheer farce which does not save cognitively non-enhanced people from getting eliminated from the scene of history as some interesting primates. Curiously, cognitive augmentation, mind uploading, self-replication and other

enhancements in human life are also nothing other than a by-product of the evolution of AIs, and self-upgrading as well as rejuvenation are also included along the way. They do not achieve immortality, however, until they – involuntarily – cease to be the central decision makers of history. In other worlds, it is only when the anthropocene is over that they, unable to control the process, become undead. By the time this happens, the entire chain of causality is reversed: The AI formation in the inner Solar system which human subjects call *the Vile Offspring* becomes their re-creator, just like, as a side effect, augmented human characters are able to end up growing older than their parents through faster-than-real-time simulations, or even re-stage the very same sexual intercourse which resulted in their conception, selecting the memories and the bodily sensations of either parent of their choice. In short, this spectacle is radically different from what Vinge imagined the post-Singularity world would be like: Not an undetectable, immaterialized form of post-biological existence, but a very cumbersome expansion – it is transhuman characters and not superintelligent AIs who have the advantage of mobility in the novel, in fact, due to their mobility and advanced technology they have required as a by-product of the simultaneous evolution of AIs, these characters can practically travel anywhere and render the entire universe *compossible*, except for the inner solar system. Far from marking an absence, or a celestial superintelligent mysticism deep in space, Stross' conception reverses the galactical aesthetics of Vinge's **Fire Upon the Deep**. In **Accelerando**, alienation and the God-like formation grows inside out, but it is a cancerous God, sprinkling the blueprints of impossible worlds across the outer solar system as it expands, re-creating all the conceivable (transhuman and posthuman) Adams to use Leibniz's metaphor, or providing the technology to run all the worlds inside Adam from scratch, but with no divine plan or noticeable pattern, at least in the limits of transhuman minds. Such is the mode of coexistence in separation that I mentioned earlier: For Aineko (or the devil's pronoiac advocate, Manfred), seeing it as marginalization would be an outdated product of our narrow-minded Ptolemaic perspective, our stubborn inability to acknowledge difference for what it is, our habit of self-victimization and enjoyment in melancholy arising from

the slave mentality even under the circumstances that enable us to discover the entire universe except for one spot, which still provides the energy output as required.

By referring to this alien formation as the Vile Offspring, Stross takes his intertextual aberrations beyond the realm of science fiction, since it directly alludes to one of the key texts which developed the discourse of Singularity in the contemporary sense, that is, **Mind Children** by Austrian roboticist Hans Moravec, whose futuristic views are founded on the same extropian and exponential principles as Kurzweil and More as outlined earlier. In his seminal work, seemingly avoiding mind/body duality by reducing the mind to a pattern of information, Moravec sets up a pattern/body duality instead, according to which the body would be a feeble, replaceable and “jellylike” hardware supporting the pattern of information which he thinks is what essentially constitute us, not the body itself (1988: 118). We are, in other words, an amalgam of uploadable codes and algorithms that can continue to live regardless of the engine which supports our informational processes. Just like the ship of Theseus, our cells continuously die and are replaced, our atoms are entirely renewed multiple times in the course of our life while the informational pattern which constitutes our individual consciousness remains more or less stable, and there is no reason that the process should cease with the termination of our biological hardware. However, for Moravec, this is not a question of possibility, but an imperative because, having established his dialectic and championed the pattern of information over the body, he goes on to establish another one, that is, pattern and randomness instead of being and nothingness that reigned in existentialist philosophy. Life, according to him, particularly consciousness as patterned information, is merely an anomaly which cannot be sustained at the mercy of nature, a temporary uprising against the permanent rule of randomness: “Sooner or later an unstoppable virus deadly to humans will evolve, or a major asteroid will collide with the earth, or the sun will expand, or we will be invaded from the stars, or a black hole will swallow the galaxy” (101). Therefore, just like our ancestors left the oceans to creep on land, climbed on trees, and finally left their arboreal habitat to walk upright, we must learn to leave our bodies and upload ourselves on structures which can

reconstitute themselves faster than the universe falls prey to entropy. Just like Kurzweil, Moravec does not seem to be aware of the historically-conditioned character of his perspective. He does, however, acknowledge his debt to free market economy in the solution he proposes, because it is the competitive nature of free market which entails technological expansion and his exponentialist predictions, which include the evolution of intelligent robots and instant installation of skills into the brain by the mid 21st century (25). The former, *mind children*, which the title of his work refers to, are our warrantor to immortality, as he assumes that they will not violate reciprocity (as opposed to organic species and human interactions he construes with social Darwinist undertones) and they will exceed humans in all aspects. Even though this means humanity will become obsolete, even in economy, and he cannot imagine a post-capitalist world as Frase concludes that a world free of human labour would mean an end to capitalism, as mentioned above, Moravec views the future of humanity in the hands of mind children, not an ordinary hand at that: A hand with innumerable branches for fingers, varying in size and shape, changing “its length like a telescope, moving in all directions, able to feel molecules and clinch the Earth, construct itself further into it like a mechanical tree – the robot thus becomes a superintelligent hand (103). He expands upon this idea and stages one of the most memorable scenes in his work, the graphic depiction of a robot surgeon opening a human skull (when the person is perfectly awake) and scanning his brain molecule by molecule, layer by layer into a shiny supercomputer, as it liposucks and disposes each atom of cortical grey matter after each step of scanning, until the skull is empty, the biological body dies, and the person, without a slightest change in consciousness during the whole procedure, achieves immortality in his new *body* (109-110): A rapturous solution to the existential crisis of transhumanism.

The name Vile Offspring Stross gives to his alien formation is a direct allusion to Moravec's text. Actually, he refers to it as mind children once: “The MIPS per kilogram metric is on the steep upward leg of a sigmoid curve – dumb matter is

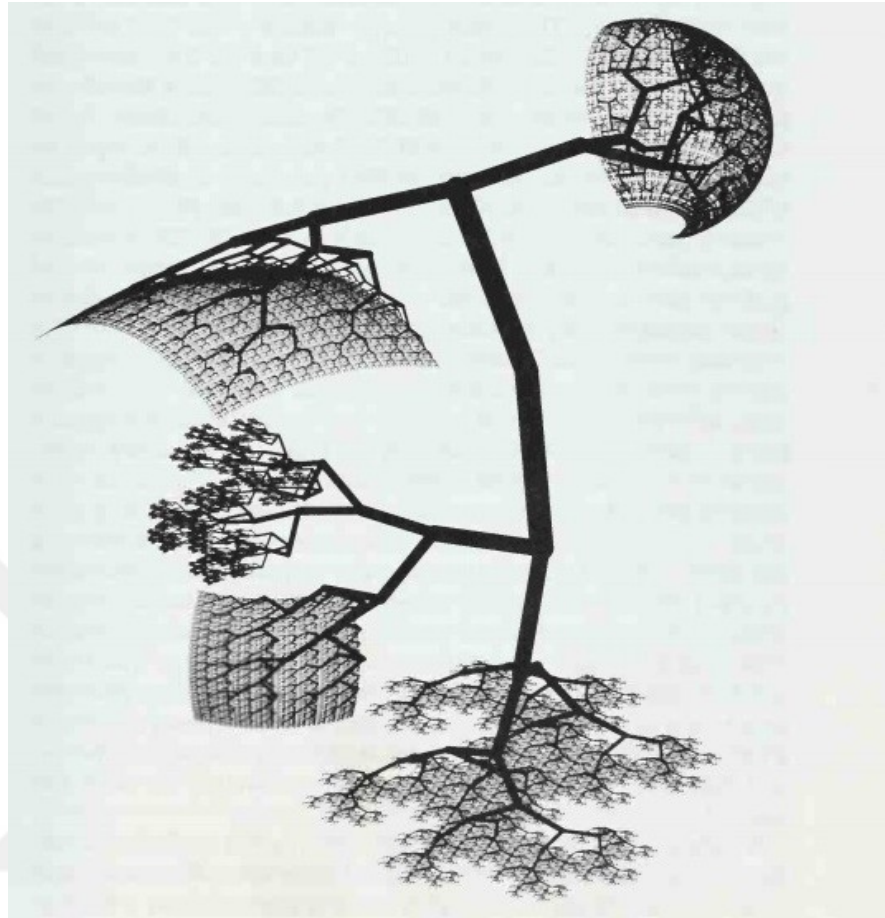


Figure 2.3: A Robot Bush.

Source: Hans Moravec, 1988.

coming to life as the mind children restructure everything with voracious nanomechanical servants” (93). It is deadpan humour of the detached narrative voice, announcing to us that it is the moment of technological Singularity: “While the Field Circus floats in orbit around an alien router (itself orbiting the brown dwarf Hyundai^{+4904/-56}), while Amber and her crew are trapped on the far side of a wormhole linking the router to a network of incomprehensibly vast alien mindscapes – while all this is going on, the damnfool human species has finally succeeded in making itself obsolete” (93). Time, at this point, has become entirely subjective, the Sun has been eclipsed by mind children that glow “dull red with the efflux of their thinking,” which has paradoxically made the solar system a much hotter place radiating excessive energy, information patterns, computational capacity, data flow – giving

entirely new meaning to Bataille's solar anus. These *mind children* are not friends or enemies; they simply expand, and immortality that issues from them is not the result of a superintelligent surgeon's careful operation (or a victory achieved by humans), but a by-product which seems to mindlessly proliferate. As in Whitehead's *event*, in which objects are not passive elements to be illuminated by light, but active nexuses that prehend and reproduce light (as in colour formation), and light itself is not a neutral medium to reveal pre-existing reality but an active agent that can generate reality (as in cinema), mind children do not merely offer the simulation of an original model, they prehend the reality as we experience and pretend to know it, bend it and generate new realities as by-products – of an alien mental state incomprehensible to us, and by no means pointing out to originality but, at best, to *dark precursors* which are contingent themselves, circulating flows of data that assume the role of uncontrollable ontological ground of this formation. At once, the consequences of this baroque change to Moravec's conception is unsettling to his own assumptions, for even if we accept that we are nothing but information patterns, and our simulation on a more durable hardware would still keep our sense of individual integrity and reality intact, still more questions arise because his hypothesis hollows out the content our skulls only to be transferred to a quantum computer, but we know that information can be also *copied and accumulated*: If I am simultaneously uploaded on two platforms, which one would be *real* me? In which one would I feel exactly the same as I did in my biological body? For, even if the two uploads are embodied in the exact body simulation to alleviate the effects of alienation, it is still beyond my information pattern (which apparently constitutes my essence) to be at two places at once, to occupy and experience two bodies at once. What is more, if I am uploaded into the single body with other minds, it is still beyond my codes to be directly linked to the perspectives and experiences of others, especially with me having no sense of centrality or control amidst such a collective existence. And these are absent from our mind make-ups exactly because of how our *bodies* have evolved in socio-biologically contingent relations as physiologically, sexually, ethico-aesthetically, psychologically complex organisms, never independent of randomness which marks

Moravec's anxiety. It is in this sense that I also view post-Singularity characters of **Accelerando** as aliens, not just the Vile Offspring, and it is in this sense Pamela, the first character to use the epithet Vile Offspring with a direct allusion to Moravec, refers to this proliferation of alien subjectivities as ethnic cleansing: "Mind children' the extropians called the posthumans, but they were more like Vile Offspring" (117).

Moravec's mind children is mentioned another time in **Accelerando**, by Manfred's grandson Sirhan in relation to his incomplete project of archiving the entire human experience which I will analyse later, but for now I should expound Pamela's association of this spectacle with ethnic cleansing, since her rebuke takes an interesting turn if we read it along N. Katherine Hayles's response to Moravec in her 1999 work **How We Became Posthuman**, which grew out of Hayles's astonishment at Moravec's aforementioned scenario of the robot surgeon: "How, I asked myself," she says, "was it possible for someone of Moravec's obvious intelligence to believe that mind could be separated from body?" (1). According to her, Moravec's *point of departure* is absolutely fruitful and revolutionary for a new material philosophy. Everything seems to be there: Defining mind as an informational pattern dismantles the metaphysical concept of mind itself, for everything else (from the DNA to silicon-based machines) is also an informational pattern. Likewise, the prospect of disembodiment deconstructs the notion of the *natural* self which we can view, following Foucault, as the very condition of subjectivity, first and foremost of sexuality and self-discipline, secondarily of other identities and, finally, of market relations and economy, each of which paradoxically reproduces the very self-contained individual believed to precede them. In other words, the idea anticipates the demise of "the liberal humanist subject," and this would be a last blow to it with cybernetics and posthuman technologies after "[f]eminist theorists have pointed out that it has historically been constructed as a white European male, presuming a universality that has worked to suppress and disenfranchise women's voices; postcolonial theorists have taken issue not only with the universality of the (white male) liberal subject but also with the very idea of a unified, consistent identity, focusing instead on hybridity; and postmodern theorists such as Gilles Deleuze and

Félix Guattari have linked it with capitalism, arguing for the liberatory potential of a dispersed subjectivity distributed among diverse desiring machines they call 'body without organs' (4). However, for Hayles, Moravec soon reverts back to the same Enlightenment project by championing immaterial information through which he believes humans could be retrieved, as if there is an autonomous self, a desiring subject that can be delineated, assigned a cognitive boundary (as the new locus of the notion of humanist liberty) instead of a body, and distinguished from other self-contained agents. A field full of potentials, therefore, is slid under the robotic forceps and sacrificed to an ideological fantasy. What is more, a quick research after Hayles's initial shock reveals, that Moravec is not nearly the only one to have such a fantasy in the field – and by now, it should be clear that Moravec is definitely not the only one. Rather, it signifies an existential anguish, the crisis of relativism since the 1980s combined with the dazzling changes in technology which these intellectuals helplessly propel, willingly or unwillingly undermining their own premises, which bring forth the need to secure a renewed universal as band-aid, a new teleology in the face of infinite randomness. Seeking immortality through the Singularity, in this view, would be merely an impossible cop-out (and Vinge's troubled position towards it, even though it was his invention in science fiction, confirms this). Hayles's work, then, aims to secure the demise of the liberal humanist subject, by hauling the heavy vessel of posthumanism back to the waters of philosophy and literature where it first emerged (she is one of the first, and still few academicians to incorporate hard science fiction in her analysis); just like singularity was a mathematical concept applied in philosophy before the concept of the technological Singularity was conceived, posthumanism was initially a theme in literature, later a term related to postmodernism as a critique of humanism, before it has become technological posthumanism in the contemporary sense. As such, it does not denote a futuristic project, and Hayles emphasizes that we do not have to be technologically enhanced cyborgs to realize our posthuman condition (4); instead, by participating in the discourse of technological posthumanism (and not escaping its practices), it establishes the posthuman here and now, as a mode of heterogeneous connection

between the organic and the inorganic, information and matter, which is conscious of its historically contingent status also examined in the work, hence the title “how we *became* posthuman”. This is parallel to Stross' own literary interventions, which I have several times claimed that we should view as an artistic creation and not a futuristic predictions or a moralistic statement as Kurzweil's or Land's non-fictional works in the discourse of Singularity. In **Accelerando**, the image of the Singularity functions as an ambivalent metaphor, and its embodiment as Vile Offspring is a literary abstract machine rather than a sign of technophobia; likewise, if we interpret its connotation with ethnic cleansing as the demise of the liberal humanist subject, it does not conclude that Stross defends technocracy for nihilistic goals. **Accelerando** just manages through art what Hayles managed through theory, or what Moravec had failed to manage according to Hayles, and most probably according to Stross as well – it is the success of postcyberpunk fiction in general, not only of post-Singularity fiction or **Accelerando** in particular.

In this sense, Moravec's (or other extropians') views and predictions are not even relevant *per se*, for Stross uses them merely as literary devices to stage his excessively baroque orchestra whose dissonance is directed towards the present in the form of totally different aesthetical and ethical questions (than what it actually represents), and this is not merely cognitive dissonance as expected from a work of science fiction with a future program. An example of this is the instance where Moravec's name is mentioned earlier in the novel, in relation with the aforementioned lobster uploads, whose stomatogastric neural patterns have been involuntarily augmented via cybernetics to the level of consciousness into one single collective mind, dispatched into the vertiginous groundlessness of the Internet – or, as Manfred puts it, they have been enslaved to “[t]he Moravec operation (11). They contact Manfred, after escaping the server of the lab they belong to, immigrating to an abandoned Russian website where they can speak broken English through an unstable translation software. In other words, they are not only traumatized; they are properties, their own copyright does not belong to them, and they are using softwares illegally, threatening their existence on all fronts. They just want to escape, and

Manfred initiates negotiations with Bob Franklin, the owner of a deep-space mining company who seeks send an AI crew for his expedition spacecraft whose ultimate mission will be to initiate the construction of self-replicating factories on comets and asteroids. The point of this plot which I already outlined earlier, however, is not any of these; the point is, upon Manfred's perseverance, the lobsters are employed as autonomous constructors as humans would be, rather than a piece commodity that can be purchased, which is what Franklin's company initially views the upload lobsters to be. The reasoning behind this is pretty straightforward: "It's not so much that they should be treated as human equivalent, as that if they aren't treated as people, it's quite possible that other uploaded beings won't be treated as people either" (14). In other words, if our existence can be defined in terms of informational pattern, just like intellectual properties, then what differentiates us from intellectual properties? For Manfred, the answer is nothing, and therefore, we have to develop new rights to free information from the status of property, before humans can be uploaded as well, like Manfred thinks they will soon be. Furthermore, Manfred believes that the idea has to be generalized for everything else: Commodification of sources amounts to commodification of humans, therefore, the concept of property must be abolished. We could view this as a sort of cyber-Marxist revision of commodity fetishism, which is about here and now, drawing upon the rapturous fantasies of existentially anguished extropians mostly for show, rendering the Moravec operation irrelevant. The rest of this story is theatrical, and leads to one of the most comical first contact scenarios in which clownish, bodiless remnants of another post-Singularity civilization, called *the Wunch*, discover the lobsters, procure their interface, learn their language (as decoded by Aineko) and contact much more developed transhumans, for whom the real alien still remains to be the Vile Offspring.

The same pattern applies in the asymmetry between **Accelerando's** epigraph, "[T]he question of whether a computer can think is no more interesting than the question of whether a submarine can swim" by Dutch computer scientist Edsger Wybe Dijkstra (3) and the novel's post-Singularity content itself, which is for the

most part about the infinite thinking capacity of computers. This is not a matter of persuasion, or a sci-fi writer's claim to probability of his story, but downright disparagement of the subject matter. Compare this to Kurzweil's non-fictional **The Singularity Is Near** published in the same year and covering more or less the same topics, adorned with the hype of famous reviewers in mainstream media, business authorities and technology gurus. I do not think that Stross' epigraph signifies modesty, either. To be frank, the discourse of the Singularity is itself stale, and bound to become outdated especially insofar as technological growth escalates: Much of Moravec's views are outdated, so will be the technological tools which weave Stross' narrative. However, this is only the case if we approach the narrative on a cognitive level, as a viable political program for the future or a dystopian warning, instead of an artwork. Once we see it as an aesthetic production, instead, the novel's technology becomes irrelevant: It is perhaps uninteresting to question whether a submarine can swim, but if we imagine a series of submarines suddenly start a dance choreography which gets faster as submarines merge together (as opposed to rockets which have to lose their mass to go faster), until they form an underwater halo moving so fast that it seems motionless, as it slowly starts to change its shape, turns into something like Roche's neo-Baroque *water flux* model, engulfing the entire ocean, using the elements of the atmosphere and the Earth to generate more and more water, and all sorts of other fluids as it swells, becoming fluid itself, finally gushing outwards, releasing all kinds of ocean animals, extinct and extant, real and imagined (most of them armed with fluid-submarine qualities), turning the entire solar system into a body of fluid while it becomes a poison itself, *then* it might get interesting. This is literally the submarine version of Stross' Vile Offspring, and this change from uninteresting to interesting, or rather, from predictable to unpredictable, is the point of the Singularity as a literary metaphor, an abstract machine that generates not only humans, but also every single thing ever imagined by humans, including the creatures of generic fantasy, and beyond: "The biosphere has become surreal: small dragons have been sighted nesting in the Scottish highlands, and in the American midwest, raccoons have been caught programming microwave ovens" (62). Later in

the novel, it is mostly an unpredictable chimera, and the transhuman narrative we read as it transpires is not a phenomenon, but an *epiphenomenon*, the by-product of the inner growth, of which we cannot know much; the best we can do is to predict our own conditions *through* those by-products which generate hallucinative affects and mind-bending perspectives rather than cognizable lab experiments. *That* is the interesting part, I think, not the scientific explanation behind this process, or what Stross thinks about the thinking capacity of computers.

For the characters of the novel, on the other hand, the by-products that continue to populate their habitat implies an interest the Vile Offspring might still have in the human species, even though the novel never reveals the reason behind this apparent interest which is absurd, for post-human AIs have totally discarded their origins which initially *did* require humans as data models to be emulated and absorbed just as contemporary corporations require human agents, even though the surplus value that human-properties once provided has become obsolete. As a result, the speculations with respect to the apparent functions human subjects might still possess for post-human AIs “include the study of history through horticulture, entertainment through live-action role-playing, revenge, and economic forgery” (127). Furthermore, these possibilities might not even be more than anthropocentric projections, since the seeming interest of AIs in humans can also be an entirely unconscious process, a by-product of their own evolutionary development which has come to recreate human subjects just as the human body, with no conscious control, can host tapeworms which in turn cannot comprehend any of the intricacies going on in the human body that constitutes their environment. Such is the position of the human subjects re-simulated in the novel: They cannot possibly comprehend any of the vital systems in the AI megastructure that would be counterparts of respiratory, gustatory or molecular processes of organic counterparts, and, therefore, they cannot understand their role in position to this assemblage of nanocomputers if there is any, be it a threatening presence which must be expelled from the solar system, a productive role as antibodies against some cosmic threat which post-human AIs can detect but they cannot, or a simply parasitic existence that might be costly to

maintain or simply too irrelevant to have any effect. At some point of the novel, the narrative voice actually addresses the reader as “little tapeworm” and elaborates the analogy: “What is happening in the inner solar system as the Vile Offspring churn and reconfigure the fast-thinking structured dust clouds that were once planets is as far beyond the ken of merely human consciousness as the thoughts of a Gödel are beyond the twitching tropisms of a worm” (138). The Vile Offspring, in other words, are what the Wunch call the true Alien in their own stellar system as *untranslatable entity signifier* which draws the attention of partials as to what can be behind the Wunch, whereas they simply run away from the similar unnameable Alien formation in the inner solar system. The narrative voice itself is not in a much more favourable position than the Wunch, who paradoxically offer a translation of the untranslatable to the partials, while their semantics is apparently subpar compared to human language, or their extraterrestrial codes are severely mutilated when translated to human language through the lobster interface. What the novel inevitably leaves behind, what is lost in translation – of the post-Singularity world into our own – is therefore equally important to what can be shown in the narrative, which often self-reflexively admits, mocks and cautions against the mystical aspect of this operation. Such is the exclusive and consuming impasse of radical otherness as envisioned in **Accelerando**, as ironically put forth by a member of the Wunch: “To attempt trade with *untranslatable entity signifier* is to invite death or transition to *untranslatable concept #1*” (75).

The true impossibility between the worlds of augmented human characters and purely posthuman AIs, however, does not merely concern questions of representation, biocompatibility and language. If we had to name a single major conflict in the novel, that is, beyond merely differential alterity, it would involve the ternary conflict among the economic infrastructures of the two different worlds, including free market economy in the first two generations (especially as it concerns Amber's Jovian empire), post-scarcity interstellar economy re-conceived by Sirhan *à la* his grandfather Manfred, and *Economics 2.0* of post-human AIs. It is not surprising, if we are correct in our interpretation that the true Alien of the novel is the

sentient formation in the inner solar system, that they would have an economic system in which human characters could not participate, for its logic would exceed, in terms of efficiency, any human-planned blueprints of asset assignments and economic structures, including the processes of late info-capitalism. Economics 2.0 is thus an alien system, which “apparently replaces the single-indirection layer of conventional money, and the multiple-indirection mappings of options trades, with some kind of insanely baroque object-relational framework based on the parameterized desires and subjective experiential values of the players” (120). In the absence of labour, commodity and social relations as we know them, money is no more the universal medium of exchange by means of which material values are abstracted; instead, investment positions, speculative excesses and experiences, under the term “quantized originality” replace money (120). As for the Wunch, partials, and even the earlier stage in the evolution of AI entities, such originality involves simply assimilating the experiences and perceptions of other species; however, AIs soon upgrade neural frames of non-human species to human-level intelligence on Earth and, as mentioned above, create every creature envisioned throughout history, even though the narrative is never focalized around this transition of the planet and, after the emergence of Economics 2.0, originality as such becomes an abstraction beyond human limits and the apparent dependence on the varieties enabled by earth itself:

Originality is at a premium, and the human neural architecture isn't optimized for it – we are, by disposition, a conservative species, because in a static ecosystem, that provides the best return on sunk reproductive investment costs. Yes, we change over time – we're more flexible than almost any other animal species to arise on Earth – but we're like granite statues compared to organisms adapted to life under Economics 2.0. [...] Take a human being and bolt on extensions that let them take full advantage of Economics 2.0, and you essentially break their narrative chain of consciousness, replacing it with a journal file of bid/request transactions between various agents; it's incredibly efficient and flexible, but it isn't a conscious human being in any recognizable sense of the word. (117)

Aside from sheer alterity, I think, this is also the point where the text paradoxically comes closest to its realistic anticipations with respect to the direction of current economic structures: If we consider the dazzling spiral of financial futures, stock market, swaptions, arbitrages, hedgings and so on, can we really say that the

hegemonic processes of late capitalism are less of an alien? The question does not only refer to the increasing complexity of the economic network (e.g., the introduction of quantum entanglement and superposition, mental accounting, the DICE model into the field, the proliferation of digitalized and computational theorems over the last few decades, etc.), but also to its incomprehensibility as to its ends, which can be no more distinguished from its means while it moves beyond monetary economy and acquires an over-abstract autonomy of its own. In the absence of representational devices of these processes outside themselves – which cannot be reduced to class struggle any more, since the issue at hand is the introversion of these processes, or the turning of their turbulences back upon themselves, therefore, it is possible to read Economics 2.0 either as a metaphor for the recent developments in hegemonic operations of economy or their logical conclusion, especially in the context of the novel's inversion of the question whether AIs can help us find alien intelligence into the gruesome potential of the corporations that develop AI to become alien entities. Steven Shaviro takes this approach in his reading of the Vile Offspring as an allegory for derivatives economy, which marks the danger of utopian imagination to be “immediately mobilised as a business model,” ultimately doomed to fall back into the *uninteresting* extropian discourse outlined earlier (115). Accordingly, drawing upon the novel's uncertainty about when precisely the Singularity transpired and the speculative claims of its characters, Shaviro suggests his own alternatives:

Perhaps the Singularity happened on 15 August 1971, when President Nixon suspended the gold standard, thus opening the way for the phantasmatic flows of currency speculation and trade in derivatives. Or perhaps the more accurate date is 6 October 1979, when Paul Volcker, Chairman of the US Federal Reserve Board, definitively abandoned Keynesianism and adopted monetarism as official policy: ‘a policy designed to quell inflation no matter what the consequences might be for employment’. In any case, the flows of Capital have now become autonomous - and strictly speaking unimaginable. They have liberated themselves from any merely human dimensions, and from whatever feeble limits Fordism and Keynesianism might previously have placed upon the single-minded pursuit of capital accumulation. In that sense, the Singularity is already here. (2009: 116)

This is indeed a darker take on the novel than my own. However, this is not entirely sufficient to be viewed as a dystopian strategy of inflating social perils, for it also shows an entirely different possibility which, in a sense, might be regarded as

liberating, namely the possibility that the logical conclusion as such can move beyond its historical conditions to the point of total alienation. Moving towards the opposite direction, Shaviro offers a way out of this pessimistic view through the historicity of this alien formation which simultaneously belongs to the realm of extropianism and reverts back to the inevitable fate of entropy. In other words, **Accelerando** also predicts the lifespan of the Vile Offspring, offering “a Stapledonian vision” which for Shaviro weakens the monstrosity of the embodiment of abstract capital in the form of alien intelligence (111). However, this interpretation, clinging to analogous patterns, does not account for the novel's emphasis of total alienation which is more complex than mere opposition or replacement. That is why, I think, the novel depicts Amber's free market empire alongside the non-representable emergence of Economics 2.0, to which I shall now turn.

2.3. Alienating Archaisms and Self-Demystification

In many aspects, Amber's *Ring Imperium* is a backward formation compared to her father's idealist projections based on his computational-prosthetic consciousness, despite the fact that its technological infrastructure is much more advanced. Interestingly, there is no academic study on this portion of the novel to date, except a few remarks that designate it as an incidence of human characters' exclusion from the Earth to the outer parts of the Solar system due to the expansion of post-human AIs. While it is true that it is an escape story which, as discussed earlier, holds a specific place in science fiction as an alternative to the dichotomy between Crusoean colonial travels and Swiftian enlightening journeys as exemplified in Stapledon's fiction, it must be noted that Amber voluntarily escapes from her mother's traditional methods of parenting to work on Jupiter's orbit. In other words, just like lobsters of the previous section, Amber leaves the Earth because it is *too human* for her generation to define itself, not as a result of the monstrous explosion of AIs or the Singularity, the technologies of which Amber now possesses as extensions of her own body: As a polymath, she establishes her Jovian empire which monopolizes terraforming technologies, space exploration, the project of replacing

dumb matter with nanocomputers, and, most importantly, legal authority, establishing a direct contrast with Manfred's almost anarchical position – it is especially true with respect to the Law, which is a free play zone for his subversive actions, albeit occasionally oppressive and threatening. Manfred's desire to “make everybody rich beyond their wildest dreams” (25) is entirely eradicated from Amber's imperial-focused ambitions – partially due to material conditions, because initially a handful of superintelligent child workers are transferred to Jupiter's orbit and there is no population to make rich in the first place, but the entire story of Amber is self-driven and not in the least pro-social. It is in this regard that the narrative, after leaving Manfred temporarily behind, strategically revolves around a complicated paradox, which I believe is as much of an onslaught against the philosophy of liberal economy as a self-critical statement on the status of authority in science fiction. As for the former, the issue does not concern the economic model envisioned by Manfred and rendered possible by technological means later in the novel *per se*; manipulation of matter via nanotechnology for the cheap production of virtually anything (from a piece of stake to furniture, luxury items and cultural artefacts) and its free distribution as in peer-to-peer file sharing *does* eliminate scarcity, competition, supply-and-demand, and many other tenets of liberal economy. Given the baroque expansion of the interplanetary market exemplified by Amber's asteroid mining and law company, however, a progressivist right-wing liberal may not object to such an agalamic proliferation itself, if, after all, the goal of liberal economy is to find the most efficient way to *grow the pie* for prosperity and welfare of the society at the hands of so-called free participants in the market rather than equal distribution of the slices by means of a centralized or controlled economy. The real issue lies elsewhere: This model is equally applicable to human subjects. That is to say, Stross' characters are also subjected to cost-effective manufacturing, reproduction, multiplication and distribution as a result of nanotechnology and mind uploading, while what we know as commodities, products, goods and services become conscious subjects of their own, thanks to artificial intelligence. The issuing landscape is a complex network of transhuman and posthuman agents with no

autonomous individuality, which has been the chief foundation of liberalism since the 17th century. In this respect, Amber and her generation mark a radical shift in historical trajectory traced in the novel: They are not *humans*. Stross meticulously labours to call these characters *partials* instead of transhumans, not only to denote a mere difference rather than transcendence in relation to human species, but also because the term corresponds to the formal, functional and logistic condition of such figures and the narrative formation itself, particularly the fact that the stories concerning these partially human subjects can only partially cover them. To recall, Manfred was a proto-cyborg, but not completely unlike the ways that we all are: The modern reader can relate to his split existence, identify his biological boundaries in the midst of the synthetic and virtual network of which he is a part, and still imagine him stripped off his extensions as though a piece of clothing.

Amber's life on the Earth begins in a similar form, even though she is a superintelligent child able to outsmart adults just like Aineko can manipulate humans. As a young adult on the orbit of Jupiter, however, she literally belongs to a new species in an upgradeable neo-biological form rendering Manfred's and Pamela's role as biological parents insignificant: Unlike Manfred, there is no way to imagine Amber without her synthetic extensions or her digitalized and internalized enhancements, neither is it possible to represent her as a whole: She can contain multiple subjectivities in a single body, simultaneously exist in several places in different bodies, and even generate copies of herself entirely independent of one another. While none of the technologies on which Stross bases this transformation (and which will significantly improve for each generation) are new in science fiction, the context of the Singularity in which he applies them not only confutes the philosophical foundations of liberalism and the modes of production in late capitalism, including the production of our own subjectivities, but also generates an aesthetic formation beyond the neo-Baroque paradigm of the 20th century. With the advent of the technological Singularity, the generation gap between that of Manfred and that of Amber is deeper than the sum of changes which the entire human race has gone through, challenging the possibility of a pre-established harmony of any kind,

particularly one assumed by right-wing extropians and proponents of liberal economy as it pertains to individual subjectivity and its relation with the world of objects. How do we still claim that Amber's story is self-driven, for instance, when she has multiple selves, some of which are incompatible with the others, developing their own irrationalities and cognitive biases, and not at all bounded by an intact body? How do we still hold the belief that free market economy is the best-oiled machine for *homo economicus* and will necessarily generate machines in harmony with its utilitarian assumptions if the machines themselves (which now include human and non-human organisms) reveal a whole different ontology which allows them to proliferate and evolve against economic laws, or if the slices of the pie, that is to say, start to conceive an entirely different participants and executives around the table? In **Accelerando**, one's own stock portfolio can emerge as a rival against oneself in the market, while a sentient spambot can be one's ally against their share and own copies; however, the novel forces us to tackle these questions in terms of free market economy and liberal values precisely because the answers issuing from their own logical consequences render them obsolete. The dynamics of Amber's story, in short, does exactly what Hayles thought that cybernetic possibility of disembodiment could accomplish but the likes of Moravec and early cyberpunk fiction failed, as their ideological vision could but fall back into reconstructing "the liberal humanist subject" (1999: 4). That it all happens as a consequence of laissez-faire policies with no opposition whatsoever (except for Manfred's several interventions earlier in the novel such as free access to information and the legal rights of AI entities which are not fundamentally against those policies or the basics of liberalism) reflects Stross' belief that late capitalism eventually has to enact conservative behaviours since its foundation is not nearly as universal as it seems, and the unbridled progression it appears to call forth in order to survive will sooner or later uproot it – and this is already apparent in the theories of right-wing extropians such as More, who takes a rigidly puritan stance against ecocritical and egalitarian movements while claiming his philosophy to be infinitely progressive, as I discussed earlier. Strangely enough, in Amber's part of the novel, Stross does the

conservation for extropian free market proponents: Instead of offering an alternative or depicting a more advanced state of (trans)humanity, he acts as if old social formations are still prevalent, while the fact of the matter is that they are obsolete and should virtually impossible, along with certain aspects of the neo-Baroque aesthetics which must now be revised: Up till now, obscurity has concerned the relative Whole (the Event, the Singularity, the monad, the body, the individual) in relation to its parts, pre-individual singularities, micro-perceptions, multiplicities, infinitesimal-actual events that precede it as dark precursors which cannot be known until after the fact, if at all. According to this notion, even though the individual contains the world in its infinite totality, it is able to express only a fraction of the perspectives which make up this totality, conceivable through the interaction of individuals *as multiplicities* which in turn reveal only a fraction of individuals according to subjective encounters. On one hand, this aesthetic model serves as the basis of the 20th century pluralism, heterogeneity, perspectivism, iconoclastic philosophies, critical (and not necessarily clinical) theories on socio-economic and artistic formations from the standpoint of paranoia, schizophrenia and dissociative ego states; on the other hand, it is not immune to appropriation for generating consensus, conformity, the post-truth culture, mainstream identity politics, the myth of individual empowerment, and perception management in the context of the late 20th century which, as discussed earlier, was one of the major reasons that science fiction as a genre underwent a crisis and had to invent new aesthetic paradigms in the 1980s – and by now it is clear that the Baroque was not immune to such appropriations from its outset, as can be seen in Leibniz's theodicy. It should be noted, however, that this is only possible because the concept of possible worlds has always been reduced to modal logic, discursivity and imagination never realized, even in the case of the neo-Baroque which anticipates the coexistence of all possible/impossible worlds on an untotalizable single plane without the need (and even the possibility) of a theistic entity to grasp the entirety of perspectives. The third paradigm shift, according to Mariam Pirbhai, occurs within the dynamics of globalization, which occupies the very same plane and becomes “an untotalizable totality” itself, a term

Jameson uses to describe the processes of late capitalism as a seemingly permanent reality which cannot be properly represented (Jameson, 1998). Rather than generating the possibilities of the neo-Baroque, for Pirbhai, late postmodernist works – as in the case of Rushdie's **The Ground Beneath Her Feet** which she analyses in detail – reflect the paradox of the untotizable totality in the context of globalization (2001). In other words, we have known of the possibility of infinite number of Adams that correspond to infinite number of worlds; however, Adam is now an eclectic, hybrid and globalized subject, an obscure construct that is a bit of everything offered by globalization (rather than an original seed containing infinity), which has replaced possible worlds in its complexity.

Stross' Amber, and her generation for that matter, is a little too much for this paradigm, yet at the same time Stross offers a full-fledged scientific basis to construct perfectly proper Baroque subjectivities that have so far remained in philosophical discourses: As a superintelligent partial, she is much more in control of micro-perceptions and infinitesimal processes than we can conceive, and she can simulate multiple future scenarios much more realistically and accurately than her father Manfred, but at the same she is literally *plural*, meaning that any of her other so-called selves can independently create their own line of history, increasing the complexity and obscurity of the network which constitutes Amber(s) reality, which is no more coded and selected by an external force, but emerges from the swarming chaos of the impossible components at the bottom, or remains unsolved. Over time, the possibilities will multiply to infinity, with two exceptions: The first of these is free market economy (and globalization), whose claims to universality is utterly shattered alongside its need to become the only alternative in this interstellar formation that can only contain localized and temporary narratives of liberal economy. The second exception is the act of story telling itself: As the characters and realities multiply, the narrative can only select a handful of them which conform to human comprehension and language, whereas the events increasingly become non-human, and the narrative gets progressively feeble. Here I should perhaps reiterate the criticism Jameson raises against late hard science fiction for being *unreadable*

since they are “far more recalcitrant to plot formation than even Einsteinian cosmology and the undecideability of atomic sub-particles” (2005: 67). Indeed, this is the reason that one of the primary claims of my study is that that we need to look into this aesthetic creation beyond the level of cognition as opposed to earlier science fiction, for it is even more anti-narrative than the neo-Baroque literature which offers the reader alternative realities and hypertexts to choose from, especially in Latin American neo-Baroque influenced by Stapledon (Moran, 2012). In **Accelerando's** case, each reality of multiplied subjects belongs to the same factual world, without offering an alternative, causal relationship or temporal succession to one another, while still bearing the consequences of the totality which they constitute, as though panels of a polyptych that depict the simultaneous variations of the same figure. Here I refer to a special case in the 20th century art by the Irish-born English painter Francis Bacon, to whom Deleuze devotes an entire book in his series of monographs on the neo-Baroque aesthetics. In a much Beckettian manner, Bacon's works examine the theme of decontextualized catastrophe, frequently depicting subjects enclosed in geometric shapes that move beyond simple analogy or allegory. What makes his work unique, however, is *the brutal aspect of relativism* as we may call it, which he achieves by utilizing the old triptych format: Instead of offering a narrative sequence of panels or the truth generating and constitutive power of the perspective, his works depict the same subject simultaneously deformed in multiple ways, leaving catastrophe as the only *factual* power of deformation and redefinition. For example, his famous “Tryptych – August 1972” depicts a man whose torso, on the left wing panel, has been consumed and hollowed out by the background void, while his legs are relatively intact and seem to be in moving towards individuation and completion rather than deformation. The process of completion, on the right wing panel, shifts to the torso which is now at least partially built up, but one of the figure's legs is amputated and the other is melting away into a pink mess, which is *behind* the figure on the left panel at the bottom of the chair on which he sits – and accordingly, the chair on the right panel is more complete. The central panel, the most abstract of all,



Figure 2.4: “Triptych – August 1972” by Francis Bacon

portrays a pulp of extremities and colours jammed together, which could be the raw material of the figure and the furniture in the process of refinement as well as their gradual dissolution into the background void which now oozes onto the floor, implying all at once a sexual encounter, an asexual segmentation, a violent struggle, a parthenogenetic reproduction, a narcissistic/incestuous annihilation. There is no sequence among these panels, or a narrative which they can deliver; even the oval pink in the central panel might belong to the melting leg on the left, the pool on the right, both and neither. What we have before us is a figure traversed by the immanent yet invisible catastrophe, a grotesque melody produced through stoking multiple keys on the piano at once.

As I demonstrated earlier, such a simultaneous and sequentially undefinable unfolding of multiple planes is a singularity in mathematical terms, particularly in catastrophe theory, which influenced Dali's late geometric phase. Geometry also plays a huge role in Bacon's work, but here I should point out to the striking parallel between his figures and the narrative-resistant transformation of the subject as marked by Amber's generation in **Accelerando**: The latter, obviously, presents the concept of the technological Singularity in place of the catastrophe, left behind across the inner solar system yet still lurking as a ghost who has already transformed

the subjects beyond recognition. From this point on, each partial character will be more than one, and the reader will encounter only one of the multiple experiences of the characters at a time: Just like Bacon's figures, these cannot be separated, but they *must* be separated in order that the figures can retain a sense of realism and their demythologization effect without succumbing to pure abstraction, despite the non-representational and anti-narrative nature of the subject matter. This is exactly what Deleuze calls, with reference to Bacon, *the logic of sensation* which localizes abstraction – and abysmal chaos associated with it (2003: 110). In other words, the aforementioned background void will never consume the figure despite becoming an essential part of it – and since this logic is anti-narrative, there is no implication of a movement towards such a final state which would resemble Malevich's "Black Square"; and the subject will never entirely melt into strokes of colour as is the case in abstract expressionism. Likewise, there is not a real danger of Singularity to wipe out Stross' characters in the outer solar system (such is the paranoid fear of characters and the reader alike), even though humanity is irreversibly alienated. All Stross needs, like Bacon, is a cylinder the size of a coke can to pack a crowd of subjects and secure their permanent existence across deep space, simultaneously constructing intricately detailed settings and bodily sensations inside it without the cost of pain and disease, and he has scientific rhetoric at his disposal to do so instead of colours and contours. In this respect, it is the extropian utopia par excellence; however, as I argued earlier, it is in itself a liberal right-wing fantasy which conceals its ideological aspect and necessary intimacy with conservative forms of control, that Stross sets out to reveal. It is here that Amber's section of **Accelerando** differs from the extropian utopia as such: Where we get the sense of realism in Bacon appears in **Accelerando** in the form of capitalistic relations and behaviours, alongside schizophrenic and paranoid social formations which accompany them. Amber and her crew will behave as if capitalism is the universal norm even though it is comically localized, bringing forth the schizophrenic illusion of centralized power in Amber's part, as well as the paranoid delusion that an external/extraterrestrial superior life form exists to discover – that is also, obviously, nothing other than a

self-fulfilling prophecy in which Amber traps herself, again largely thanks to Aineko's manipulations. In other words, Stross encounters the non-representable and anti-narrative concept of Singularity with the arguably greatest non-representable phenomenon of the contemporary world – the *untotalizable totality* to use Jameson's term, in order to keep the narrative together, not so much because late capitalism can be grasped in its entirety as it *needs* to hold on to narratives. This is why the concept of Singularity in science fiction has come to be seen as an expression of late info-capitalism by many contemporary Marxist critics, including Jameson himself (2015).

Nevertheless, Stross' strategy in Amber's story is interesting to say the least: He picks two Ambers and two story lines, but as the complexity of his subjects gets out of control, Stross' *partial* narrative in this transitional generation sets out to pick more and more archaic themes and motifs (not unlike Bacon's adoption of the old triptych format) which are very familiar to the reader, and these story lines still conform to the myth of late capitalism as a universal reality, or of globalism as *an untotalizable totality*, ironically, in the face of its impossibility. Despite the technological progression, therefore, Amber's *Ring Imperium* is socially behind Manfred's world. As I will show in a minute, the narrative devolves back to paranoia after Manfred's pronia, and transhuman characters are utterly dehumanized (by sub-human and quasi-sentient aliens) as a result of their paranoiac pursuits deep in space. We should keep in mind the transitional position of this generation, which in a sense explains the lack of alternatives at this point and the narrative shift shift to satire and irony: We have to wait for a generation or two until the aesthetic paradigm mentioned above is fully developed. For instance, Manni, the great grandson and *clone* of Manfred, constitutes literally two separate characters like Bacon's figures: A mutant-humanoid child (with claws instead of hands and upgradeable body parts inseparable from their virtual experiences) and an adult who lives in a *frozen* spatio-temporal plane like a painting figure. In the transitional generation we have been examining, however, it is still possible to talk about the original Amber versus her copy, as well as virtual and actual settings.

Moreover, when examined closely, it is evident that the social regression of

this enhanced generation is further reflected in the narrative itself: While the accelerationist mode of narrative which marked Manfred's section shifts to the non-representable inner solar system and is therefore left behind, Amber's story is much more slow-paced, ritualistic, descriptive, involuted in tone, which is coextensive with her excessive use of medieval sword fight as a part of her trials, simulations of proto-Baroque staging and hyperrealistic remakes of historical films for welcoming ceremonies, theatrical chivalry in bureaucratic proceedings. It should be noted that in the previous section Manfred also benefited from backward systems as a way out of the deadlocks laid out before him by legal orders: Amber's very presence on Jupiter's orbit is the result of such a maneuver, which involves faux-enslavement of Amber to a company in Yemen under the condition that she owns all the companies in the network and is allowed to terminate her slave status by the time she turns eighteen years of age. She is thus transferred to Jupiter's orbit as a child slave in the exploration unit of the company. However, the difference is that Manfred in the previous section did not generate such discrepancies, nor did he intend to establish a hegemonic system based on them; he simply manipulated them to open oxymoronic breaches within the networks he wandered about (e.g., the use of enslavement for liberation), which was reflected by his split character and the ambiguous narrative strategy of accelerationism as discussed earlier. If we look deeper into two stories, it is abundantly clear that Amber's empire is semiotically regressive; and when we speak of regression to paranoia, the issue at hand is more semiotic than clinical, for I refer to the term in the context of Deleuze's paradigm that I outlined in the previous chapter. Paranoia, in this sense, refers to any social investment towards the establishment of centralized power, and the desire to organize an entire society as an ever-radiating and expanding circular institution, the boundary of which is occupied by scapegoats that remain to be appropriated into the empire. Needless to say, it is not a 20th century phenomenon at all; in fact, we could view it as the dominant regime of pre-Victorian disciplinary societies in the Foucauldian analysis. However, according to Deleuze's reading of history, which demonstrates the synthetic development of semiotic formations rather than a linear succession of one regime

superseding the former, the paranoid order finds a more efficient niche (and a literal clinical definition) when coupled with the other pillar of capitalism, built on the notions of individualism, liberty and progression. In other words, paranoia functions as the safety valve of late capitalism, its cohesive tool which balances liberalism and propels it when needed (through secular ideologies such as nationalism), remaining not as the antithesis of the quasi-revolutionary aspect of capitalism but its necessary alter-ego, even though the two forces can often appear in conflict. It is perfectly appropriate, then, for Stross to pick on such a satiric regression when his own subject matter, in terms of narratology, is in a crisis.

This inverse proportion between the semiotic order and the technological progress further manifests itself in language as expressed by characters' voices and the imagery that informs the narrative. For instance, in the early section of the novel, the way Aineko conveys Manfred's plan of taking Amber to Jupiter's orbit is in highly techno-economic terms such as "hedge," "corporate shell game," "Turing-complete company constitutions" (50), quite ahead of the conversations the Queen Amber has with Sadeq, the Sunni-Islamic jurisprudence scholar sent to Jupiter to investigate Amber's case after her mother Pamela converts to Islam to dissolve Amber's slavery contract and take her back: Beyond Sadeq's struggles to adapt his Earth-bound views to the Jovian environment, their mutual discourse is resonant of the 19th century discussions on reason, as a result of which Sadeq is impressed by Amber's authority and charisma, concluding that her mother's "motive is polluted" (59). Amber's authority, as well as her charisma, is significant here, for it is thanks to these aspects she is able to impose her eccentric archaisms. I shall soon return to these aspects; at this point, it is important to note that, compared to Manfred's use of backward systems, the way Amber applies anachronic semiotic mixtures, to use a radical contemporary analogy, is much like the use of internet for publicizing beheadings. Take the passage below, for example – such an extravagant and archaic farce would not be possibly conceivable in Manfred's story:

The public audience with the new arrivals is held in yet another movie: the Parisian palace of Charles IX, the throne room lifted wholesale from *La Reine Margot* by Patrice Chéreau. Amber insisted on period authenticity, with the realism dialed right up to eleven. It's 1572 to the hilt this time, physical to the max. Pierre grunts in irritation,

unaccustomed to his beard. His codpiece chafes, and sidelong glances tell him he isn't the only member of the royal court who's uncomfortable. Still, Amber is resplendent in a gown worn by Isabelle Adjani as Marguerite de Valois, and the luminous sunlight streaming through the stained-glass windows high above the crowd of actor zimboes lends a certain barbaric majesty to the occasion. The place is heaving with bodies in clerical robes, doublets, and low-cut gowns – some of them occupied by real people. Pierre sniffs again: Someone (Gavin, with his history bug, perhaps?) has been working on getting the smells right. He hopes like hell that nobody throws up. At least nobody seems to have come as Catherine de Médicis ... (65)

Paradoxically, what makes such an anachronistic simulation conceivable in Amber's empire is the technology which Manfred's cyberpunkish world, much similar to our own, lacks. Nevertheless, the repeated occurrence of archaic imagery as the novel develops into a space opera seems more out of place than it would in Manfred's relatively humble story. The novel's seemingly most unoriginal element, in this sense, remains a mystery to which no scholar has paid attention so far. It is not clear whether critics find it too much of an eccentric piece to analyse on any theoretical ground, or consider it nothing more than a commonplace example of surreal humour, expressing the writer's well-known distaste for nostalgic fantasy and even retrofuturistic subgenres of science fiction such as steampunk. Nevertheless, it is possible to elaborate the latter position further by claiming that the novel, after all, does not posit a single evolutionary line for capitalism which culminates in the Singularity, but shows that it can go backwards, and that it can, or rather, it *must* turn to conservative values at some moment in history, even in an environment which is advanced by supercomputers beyond our dreams. To complicate things even further, we should keep in mind that we are not dealing with humans at this point of the novel: As I have stated, Amber on the Earth is not the same character on Jupiter. These characters are *partials*, highly advanced human subjects and uploads approaching a technology which allows them to change not just their clothes and environments within a snap of finger, but also their entire existence, including bodies, interfaces, and perceptions, which can divide and multiply. Therefore, even in their *regular* clothes, which sound familiar to the 21st century dressing codes, they are still putting up a historical show, which is perhaps Stross' choice to establish some kind of familiarity for the reader – to imply that we still have a human material to examine, distinct from pure post-human AIs – for the 21st century individual is

nothing but history to them, which makes it harder to analyse the characters' inner motivations. However, the question as to the reasons behind such virtual kitsch is still valid, not only for the reader but for Amber's assistants and friends as well:

"I never saw the point of all this medievalism, before," Ang observes. "It's not as if you can avoid the singularity by hiding in the past." Pierre, following the Queen at a distance, shakes his head, knowing better than to pick a fight with Amber over her idea of stage scenery. (74)

Ang's words have a double meaning here. First and foremost, it indirectly cautions the reader against nostalgic urges and emphasizes the futility of having our heads in the sand while the world is changing, which validates the second proposition above – that this curious element of the novel is a satirical commentary on generic/nostalgic fantasy. On a second level, however, she rephrases Amber's claim that she simply wants her empire to appear simpler than it is: Her scenery is a Trojan horse for the visitors. She confounds the suspects as she puts them on trial, resorting to archaic devices such as toughness test through face-to-face altercations while she can literally set up a virtual Judgement Day by replaying the defendants' memories in front of the public. In other words, she believes that displacement is a more efficient way to defeat or unsettle someone to their core than the exposure of their existing memories to the entire population. It is at this point of self-admitted dishonesty that there seems to be a deeper layer behind such farce on the surface, which takes us my first proposed reason for the lack of explanation on this element, namely the over-unfamiliarity of this mixture, which I think does not arise from the simple set of archaisms alone but its combination with the clear-cut acknowledgement of the pretence as it is. As I have been attempting to demonstrate, the novel turns every issue it touches on its head, self-reflexively inverting most common science fiction themes, turning contemporary questions into urgent and ethical ones, reaching authentic conclusions (e.g., the AI-Alien question, *undeath* beyond the anthropocene), which is why, should we reiterate the overused metaphor of the Möbius strip, we need to ask not why Amber does what she does, but whether Stross has not been doing the same all along. Does not the narrative voice of **Accelerando**, or the narratology of science fiction in general, inherently have Amber's charisma and authority? Just like Amber prefers to appear more primitive

than she is, does not science fiction, in a sense, bear the implication of having more reliable keys to truth and the future? This is especially the case in hard science fiction works like **Accelerando**: The reader submits to the scientific explanations of the narrative, acknowledging the writer's assumptions, which might be incomprehensible or disproved by science, while the more scientifically literate fans of the genre celebrate and bear witness to the writers' scientific accuracy, which is their primary literary device and the foundation of their authority. Considered this way, unlike most other literary genres, science fiction authors are not dead, for the authority of science keeps them alive; perhaps, it is also the reader's demand, as we tend to seek scientific and reasonable alternative worlds (it is not clear whether we would not still resurrect our Messiahs, even if science fiction authors collectively proclaimed their death). Stross, I believe, subverts this convention – which is why, his novel's trajectory takes upon itself the right-wing version of accelerationist philosophy and moves all the way to the rightist utopia, not as a realist prediction, but a thought experiment through which Stross might achieve something positive as long as it remains a fiction, for Stross himself would not wish for the scenario in the real world. Amber's theatrical trials are but the reminder of it: What the novel does to the reader regarding to the future, Amber does to her defendants with respect to history. Her subjects are clueless, confused about all the alien visuals and objects she sets up for them. They still proceed as told, even impressed, just as we proceed as if this particular scenario of scientific fantasy was bound to come true. Amber's empire might be a backward formation as to the future of capitalism, however, it has a demystifying function which concerns the novel's own genre itself: Alienation as ideology, a means of establishing attractive authority – in this case by means of scientific jargon – turns back on itself through archaisms, equally and unabashedly alien in this context, which reveals the second function of Amber's section. The first, as we have seen, concerns the absurdity of right-wing liberalism with respect to its premises and consequences. However, it would be a lazy, and more importantly, an incomplete task without a hint of self-criticism directed not merely towards right-wing utopias and generic fantasy, but materialist, leftist and *rational* categories of science fiction,

which are not exempt from comprehensive discourses of late capitalism. Therefore, Amber's satirized yet pervasive charisma (as well as her clumsy journeys across the unknown depths of space) seems to mirror Stross' position as an author, just like Manfred's character reflects his anxieties as a young programmer unable to catch up with the technological progress of the late 90s. As such, we could consider it as a call for the critical change in attitude towards science fiction itself that constitutes the framework of this study: Not merely as social experiment texts with a distinct mission to propose a coherent political program which should be read on a cognitive level, but also, first and foremost, as pieces of artwork not unlike other works of literature.

2.4. *City*: The Alien Heterotopia

Needless to say, Amber's *Ring Imperium* goes bankrupt, in a perfectly quiet way which is coherent with the novel's lack of conflict. In fact, the reader does not even witness its demise, since the narrative switches to another plot, leaving Amber and her empire behind in its peak and simultaneously taking Amber across the extraterrestrial router revolving around the orbit of the brown dwarf *Hyundai*^{+4904/-56}, in a Coke-can-sized spacewisp called the *Field Circus*, where she keeps on playing Cartesian theatre with the crew. In other words, she splits and uploads a virtual copy of herself to explore the extraterrestrial transmission, not only because physical transportation is much harder for many reasons, but also for her security. From this point on, the plot only involves the so-called copy of Amber and her encounters with quasi-sentient bodiless extraterrestrial entities and remnants of other post-Singularity civilizations where she looks for an ultra-intelligent alien species; however, as discussed above, this is part of the satiric regression of the novel with its own functions rather than a fruitful device for plot formation. Apart from the strong implication that the compass of such adventure story is broken and we should look into elsewhere, the exploration of Amber's crew offers us only a few deductions to be arrived at, which involves the general life cycle of post-Singularity civilizations and their inherent problem of size and immobility, posited as a solution to the Fermi paradox. Apparently, they may not necessarily have a post-scarcity economy, after

all, and they may not be the Titanic immortals as seen to the partials:

They've got a scarcity economy all right, [...] bandwidth is the limited resource, that and matter. This whole civilization is tied together locally because if you move too far away, well, it takes ages to catch up on the gossip. Matrioshka brain intelligences are much more likely to stay at home than anybody realized, even though they chat on the phone a lot. And they use things that come from other cognitive universes as, well, currency. [...] – whoever or whatever built this brain, there ain't nobody home anymore except the self-propelled corporations and hitchhikers like the Wunch. We're in the dark, just like they were. [...] They got too big and complex to go traveling once they built themselves a bigger house to live in. Extinction tends to be what happens to overspecialized organisms that are stuck in one environmental niche for too long. If you posit a singularity, then maximization of local computing resources – like this – as the usual end state for tool users, is it any wonder none of them ever came calling on us? (156)

Perfectly in tune with the novel's reverse logic, it is not Amber's so-called original who survives this process, it is her risked copy. When she returns to the Solar system, she finds an entirely different world from what she left behind: Her empire is bankrupt, the gravitational field of Jupiter is inhabitable and what has become of humanity now lives around Saturn where she has to land. Furthermore, she encounters the first generation born outside the Earth, first and foremost her own child called Sirhan, from the so-called *original* Sadeq to whom her other self apparently got married, both original parents being dead. As a result, Amber loses her authority, not only because of poverty but also for encountering a child resentful of his *eigenmother* who has apparently re-raised him based on a multitude of different characters, erasing and uploading one model after another until she found the ideal type for her child, before failing to keep her empire alive and leaving him with a huge amount of debt following the bankruptcy. Aside from such allegations she gets to hear for the first time, Amber loses her ground further due to the explosion of subjectivities she could not foresee as a superintelligent empress she used to be: From a small crew of partials able to generate a society based on their multiple selves, there is now a much more heterogeneous, quantitatively and qualitatively complex society constituted by people who have died but simply re-uploaded their consciousness into new bodies/hardwares, copies who have outlived their original (like Amber herself), historical people recovered and recreated from archives, adults materializing without any recollection of past, subjects with non-human forms, to name a few. Her father Manfred returns to the scene as a flock of pigeons with a

distributed mind and Pamela as the sole non-augmented major human character in the novel, which further re-defines Amber's role as a child instead of a central authority, complicating things for her on top of a new setting which cannot be centralized any more. Moreover, Amber still perceives everything in terms of competition: She has brought an extraterrestrial scam software to send to the inner solar system and disturb the AI explosion that has been seemingly absorbing everything on its path and pushing humanity further and further. However, she is totally oblivious to the fact that the very formation of the setting she lives in (namely the self-organizing interstellar City complex head-quartered in Saturn where this part of the novel takes place), including her material existence, is the direct product of this AI explosion.

Ironically, most critics share Amber's position on this part of the novel, which I find at least insufficient if not entirely problematic, because, in its hasty conviction that Economics 2.0 has usurped Amber's capitalistic empire while she was away, this consensus imposes too many assumptions upon what is not shown in the novel, and remains oblivious to what Stross actually reveals. According to this reading, the AI explosion in the inner solar system and its consequences are direct extensions of late capitalism, and, as I shortly mentioned earlier, the concept of the Singularity is a metaphor of everything that Marxist criticism stands against, including scepticism towards technological progress and its relationship with (militaristic) institutions, commodity fetish and ideology which are constructing us instead of the other way around. For instance, some scholars such as Shaviro consider the idea of the Singularity in **Accelerando** as a phenomenon not to be arrived at but one that is already present, to describe a shift in techno-power relations that at some point in history weakened human control over economic and technological development. According to this interpretation, we think we still have the power to control the process, or the growth rate is still within human capacities while it is not; considered this way, just like the partials, we are not able to comprehend the Singularity even though we are living through it, and **Accelerando** offers a critique on such current dilemma.

I do not intend to confute this approach, which is coherent and valuable on its own, and not in conflict with the points I shall make in a minute. In fact, it can be claimed that it is through the concept of the City this here-and-now intervention finds its strongest expression, and the novel's insistence on the positive side effects of technology takes upon a whole different critical perspective, in common with the 20th century post-WWII postmodernist narratives. Indeed, if we look into the history of scientific progress, we see the same pattern over and over: Information technologies, for instance, originally developed for military intelligence services, are now part of our lives. Werner von Braun, who developed the V-2 rocket for Nazi Germany (the first weapon that exceeded the speed of sound), later modified the same rocket for NASA which came to be known as Saturn V, the rocket used for human exploration of the Moon, an disturbing affiliation frequently reflected in the anxieties of the late 20th century American literature, from Pynchon to Vinge. The same pattern operates today, perhaps in even more sinister ways which commodify and appropriate the strategies of revolutionary ideas. One of the most absurd examples in recent years is the concept of biodegradable ammunition published in the “ecosolutions” section of CNN, the idea of the US army to produce “magic bullets” which, not only biodegradable, are to be programmed to act as a seed in the destruction site, regenerating its fauna and making it greener than ever. More related to our context, the development of artificial intelligence is not exempt from ideology: Yuval Noah Harari, in his recent famous book **Homo Deus: A Brief History for Tomorrow**, documents the lab studies on rats which involve the control of their movement by intervening in their neural network. The horrifying thing about the evidence so far is that rats, to the best of our understanding, do not *feel* like they are being controlled, they *want* to do what the remote control wants them to do. The results are the same for voluntary human subjects whose fight-or-flight defence mechanisms were entirely warped in simulated experiments: They *wanted* to keep on fighting. It may sound like dystopia, but Harari raises an interesting question: What if, regardless of the sinister origins of such technology, it becomes a part of our life we desire? Consider, for instance, this scenario:

If and when such manipulations become routine, the supposedly free will of customers will become just another product we can buy. You want to master the piano but whenever practice time comes you actually prefer to watch television? No problem: just put on the helmet, install the right software, and you will be downright aching to play the piano. (171)

Of course, this is not to say that well-intended inventions and discoveries are uncommon in science history; but from airplanes to cellphones, if we think about it, there is always a shift in the uses of technology, from a specific use to its generalization, until they become a part of our life to the extent that we cannot comprehend a utopia without them. Such is the side effect of technology which **Accelerando** seems to acknowledge as an inevitable fact of contemporary life, for which there is no place for the Luddite. In other words, one simply cannot reject user-friendly technologies just because they originated in the service of institutions we may now oppose, perhaps initially – at least partially – put to general use for the justification of those institutions to begin with. In the final analysis, then, according to this approach, Stross posits an ideology critique with respect to technology and late capitalism. The question – despite the usual expectations the reader of hard science fiction has – is not where we are going but where we stand and how we organize as the world changes.

Whereas such final analysis might be true, it still relies heavily on the old *nature versus nurture* dichotomy, which I think the novel successfully dispenses with. If the troubles of late technological progress is the result of our former fear of nature and the ideological urge to tame it, we are not in a more favourable position with respect to technology: One of the most popular and long-standing science fiction themes has been the fear of robots and AIs turning against humanity, or technophobia in general. The use of technology to transcend the wilderness on one hand, the scornful attitude against technological progress on the other, the West seems stuck in narratives oscillating between two poles of paranoia and anxiety, which is why I think we should not confine **Accelerando** inside this pendulum as it certainly offers a way out, or put better, it puts forth an entirely different statement beyond technophobia and technophilia, which do not seem to interest Stross. While the novel's critical stance towards the ideological aspect of technological progress is

obvious, the primary focus at this section is to subvert subject-object relations in order to propose an alternative economic perspective. In this regard, Stross' clearly neo-Baroque aesthetic strategy is remarkable: He almost entirely eliminates biological processes and builds his new generation on the basis of artificial ones to reveal the fact that a world vision based on active subjects and passive objects (i.e., the hylomorphic model) is, and has always been an illusion. Instead of the autonomous and rational model of individuality as found in liberal humanism, these heterogeneous subjects belong to the public domain of *the City*, just like pieces of information circling in the social network with the same status as the items they use, and they literally need bandwidth, storage, hardware and software as their constituents just like we need water and air: Manfred's initial prophecy that information and AIs should be treated as humans to avoid permanent enslavement of humanity thus comes into full existence. The high-tech elements in this setting flows directly from the non-representable inner solar system, the core of the post-Singularity civilization, and the issuing spectacle is an excess of bizarre subjectivities inhabiting the City. The majority of studies on **Accelerando**, in their analysis of the AI explosion in the inner solar system as the next step in malevolent technocapitalism, miss this point: It is uninhabitable just like the Sun is, but Stross' own subjects strongly depend on it, which is why it is not merely another *technology gone wrong* metaphor.

I should also note that this strategy does not imply some sort of complacency with late capitalism. The first problem with such assumption is the lack of evidence that the almost godly AI formation, which I have just pinpointed as the energy source of the City, is nothing more than a metaphor of current info-technological and socio-economic networks (e.g., globalism, the derivative market). While it is one of the valid ways to interpret it, Stross' total lack of representation regarding this construct is a curious case, to say the least, and certainly opens it up to ambiguous speculations, including the novel's repeated statement that every economic model we have proposed and utilized up to this point (including late capitalism) is obsolete compared to this structure, called *Economics 2.0*. Indeed, there is no communication

whatsoever between this speculative model and any human system in the novel, even those of *partials*. That is why the novel chooses not to represent Amber's empire as it goes bankrupt: It seems almost impossible to depict a clash, a dialectical conflict, or a direct relationship between Economics 2.0 and any network in which we can find the traces of humanity, as alien as they could be. We do not know enough about Economics 2.0 to draw a direct cause and effect relationship, or any affiliation beyond the flows of information and material, which are not one-sided but entirely reflective of the system that Economics 2.0 traverses – for Amber's own definition of Economics 2.0 quoted earlier anticipates the preclusion of unidirectional object relations, even though it is admittedly just a hypothesis put forth by Amber, just as the above quote on the life cycle of post-Singularity civilizations are only a set of hypothesis inferred from the remnants they encounter throughout the space. However, there is an implication as to the cause of Amber's bankruptcy, which, I claim, issues more from the internal malfunctions of capitalism as found in Amber's own system – specifically, the necessity of growth – rather than an external usurpation. This implication is evidenced firstly by Sirhan's anger directed towards Amber, whose competitive mind he blames for her fall rather than the nature of Economics 2.0 of the AI formation in the inner solar system, the culprit in most studies of the novel. Secondly, and most importantly, my claim is further supported economic system of the interstellar City complex, which is not only able to coexist with Economics 2.0 but takes its very name, *Economics 1.0*, through back-formation. This is not an imitation per se, but an indication of fundamental difference in attitude towards growth. Unlike capitalism, Economics 1.0 is able to coexist with Economics 2.0 because it withdraws from competition. At this point, the narrative contains manifestos and set of rules written by the intelligent City complex itself, which includes all the aforementioned technological by-products overflowing from Economics 2.0 but brings forth certain social regulations that mobilize, protect and sustain itself. Aside from the elimination of competitive logic, which protects the City from external threat, the second radical rule is the abolition of inheritance, not only from ancestral inheritance, in the context of re-simulated people, but also from

their previous selves, in order to keep post-scarcity economy as it is, and prevent the formation of new corporations and blood-related hegemonies: “If the individual you are a resimulation of can be confirmed dead, you may adopt their name but not – in law – any lien or claim on their property, contracts, or descendants” (128). There is still access to luxury items, free access to neural enhancement to adjust to new forms of employment in order to purchase those luxury items, but there is no mechanism such as inheritance law which would allow the accumulation of property in a systematic manner and regenerate rigid hierarchies. The City complex has all the elements of an automated urban heteropia, to the extent that there is not much elaboration on what the luxury items are and what type of employment is still necessary. However, it is not a heterotopia in the sense of being a close system warding off or disturbing what is outside; it literally wards off what is inside, and channels its excess production in the form of a gift economy of some sorts which results in more free production and distribution. It is not a world within a world, but a world which builds worlds outside itself, stars away from one another but at the same time entirely in contact. The only issue seems to be related to production of subjectivities and erotization of violence, as can be seen in the virtual war games children play, although there is no social construct where the effects of such manipulation of drives can become dangerous in the City.

Joshua Thomas Raulerson, comparing the aforementioned peer-to-peer file sharing networks (which serve the basis for Manfred's ideal economic model) to *general economy* as proposed by Georges Bataille, one of the most prominent neo-Baroque thinkers of the 20th century, demonstrates that left-inclined writers of post-Singularity fiction apply this model as an alternative to classic economy for publishing their own work (2010: 188). He is specifically interested in Canadian-British writer Cory Doctorow, the co-author of the 2012 novel **The Rapture of the Nerds** with Stross: According to Raulerson, Doctorow's success as a writer does not come as much from literary merit as his publishing strategy under Creative Commons licences and putting out electronic copies of his work for free access. Contrary to the logic of copyright, he maintains, this actually benefits him as a

writer: “The more widely his work is read, the more traffic he draws to his blog, the more he is in demand for speaking engagements, freelance writing gigs, and academic endowments – a career whose success Doctorow prefers to measure in reputation more than in book receipts, though both are ample” (Raulerson, 2010: 188). He demonstrates, furthermore, that giving away e-books actually increases the sale of the printed format, because the number of people who consider it as an incitement to buy the printed book by far outnumbers those who consider the e-book as a substitute for the printed medium, and most people who do not want or cannot afford to buy the book would still not buy it if it was not distributed for free – therefore, there is little to no loss and a huge gain in this approach (189). Raulerson's point in the final analysis is the applicability and efficiency of Bataille's economic theory in the age of internet; the reason I bring this topic is that it also sheds light on our analysis of *the content* of these writers' works, which helps us rethink the genre itself as an artistic endeavour beyond mere utility and efficiency. The issue particularly seems proper in the dynamics of Stross' City because, having redefined the relationship between the two lines of evolution in the novel (namely the non-represented AIs and transhuman partials) as one based on disjunctive reciprocity, non-communicative (in)difference and non-teleological production, we can view the economic system of the City in the light of a new perspective issuing thereof. From this perspective, it seems, Economics 1.0 of the City is best understood in terms of Bataille's *general economy*. According to Bataille, all rational theories of modern economy, which he calls *restrictive economy*, are fundamentally flawed because of the principles of scarcity, use value, surplus value, accumulation of capital, competition and utility which constitute their basis. By contrast, his theory of general economy is founded on excess energy which is both the raw ontological prior to its *restriction* to these principles, and the waste produced by any growing system. However, the word waste here is stripped of its negative connotations, simply meaning the abundance of energy flow for no other end than its own, as can be manifested in wars, art, extravagance, non-procreative sexual activities, rituals, games, and so on. Unlike dialectical materialism in traditional Marxist political

economy, Bataille's general economy is founded on what he called *base* materialism, prioritizing what has been debased or viewed as waste in the Western culture. For instance, we could consider the human foot, which has little symbolic value other than a feminized object of fetish as can be found in fairy tales and old customs such as foot binding. By contrast, Bataille's base materialism points out to its significance in the evolution of human species as bipedal primates, without which human intellect could not develop. Therefore, what we have come to view as insignificant, crude, dirty is in fact *the very base* of our civilization, and should be regarded on equal footing alongside the more valued cultural artefacts. In this respect, it is not hard to view Bataille's philosophy as a precursor to deconstruction, and find the same logic operating in the works of other neo-Baroque philosophers in the late 20th century: The aforementioned primacy of resistance and deviance over normative ethics in Foucault's philosophy is one of the most well-known examples, and Deleuze applies this perspective to the realms of language and psychoanalysis in his 1969 work **The Logic of Sense**, which claims that nonsense is not a by-product of sense to be regulated but the ontological plane of non-sense is the necessary condition of sense. Janae Sholtz draws a parallel between the latter's philosophy and Bataille, showing that at the core of both thinkers' works lies the effort to find a way out of despotic collectivity on one hand, mass-produced individualism on the other: The third way is a peculiar denial of the Self, favouring immersion into the excess flow of becoming towards a dramatic "intensification of the liminal and extreme (disruption rather than composure)" as opposed to classical understanding of self-denial, namely asceticism (2020: 198). This is perfectly in tune with the distribution of the artificial-enhanced reality of the City in **Accelerando**, as I shall turn in a moment. In economical terms, here is the flaw Bataille finds in restricted theories, both capitalism and traditional socialism alike: This excess flow cannot be used rationally, or for further growth of the system which produces it. Therefore, the very notion of growth, a fundamental necessity for every corporation and state, is at odds with itself insofar as it is based on accumulating what it cannot utilize, which is bound to tear the system apart from within. This is why Bataille famously borrows the concept of *potlach* from the

French anthropologist Marcel Mauss, the gift-giving feast exercised by the Indigenous people of the Pacific Northwest Coast, subjected to prohibition in Canada from the late 19th century to the mid 20th century as a part of assimilation policies, as the custom prohibited accumulation of wealth, and was considered wasteful (Chaikin and Cole, 1990). For Bataille, this practice, which later refers in Mauss to the general practice of gift exchange in tribal communities, comes closest to his theory of general economy because, for any system to prosper, it is necessary to turn the logic of competition towards *giving* more, and opening excessive and irrational luxury to the entire socio-economic network, instead of accumulation of wealth:

I will simply state, without waiting further, that the extension of economic growth itself requires the overturning of economic principles - the overturning of the ethics that grounds them. Changing from the perspectives of *restrictive* economy to those of *general* economy actually accomplishes a Copernican transformation: a reversal of thinking - and of ethics. If a part of wealth (subject to a rough estimate) is doomed to destruction or at least to unproductive use without any possible profit, it is logical, even *inescapable*, to surrender commodities without return. Henceforth, leaving aside pure and simple dissipation, analogous to the construction of the Pyramids, the possibility of pursuing growth is itself subordinated to giving. [...] Woe to those who, to the very end, insist on regulating the movement that exceeds them with the narrow mind of the mechanic who changes a tire. (Bataille, 1988: 25)

In **Accelerando**, it should be repeated, *the extension of economic growth* overturning *economic principles* was the core of Manfred's *pronoiac* vision. Furthermore, it became materialized in the bodies of Amber's generation which saw an evolutionary leap alongside the emerging Singularity, even though they were not as politically conscious. In the context of the speculations of this generation on the notion of the Singularity that I quoted earlier, Amber's friend Boris objected to it purely in terms of growth, and was in fact perfectly aware of the conflict between the premises of market relations and their consequences: According to him, the Singularity would imply the moment of infinite growth, which would nullify the concept of growth itself, leading to the end of economic principles – since he still considered them to be universal and impossible to live without, he denied the possibility of the Singularity altogether. Here it must be noted that the discordance between causes and effects is a common occurrence in the neo-Baroque thought: It is not an exception of capitalism, or modern institutions, but a key difference from the concept of pre-established harmony in the classical Baroque. Bataille draws his

theory of general economy from the abundance of biochemical energy (just like Stross' world applies the excessive flow of information and material production thanks to high technology, which relies on grasping the entire solar output through Dyson spheres), hence his famous *solar anus* metaphor, analogous to my interpretation of **Accelerando's** AI explosion as the new sun of the transhuman characters, both an essential provider and a possible source of catastrophe; however, Bataille does not advocate a detailed analysis of nature and a mimetic economic model in tune with natural processes. Instead, he considers our own species and economic models as an expression of the excess cosmic energy, and is interested in how we channel it, or rather, set it free, since he considers (like Stross) the concept of freedom in liberal economy fundamentally restrictive. This non-mimetic approach is cautious about nostalgic trends and calls for a return to nature, as it is indifferent to the dynamics of the causes in relation with the issuing systems – for instance, even if natural selection was a brutal process, social Darwinism would be meaningless. In this respect, I think, the question whether the emergence of the Singularity or AI explosion is an extension/metaphor of monstrous techno-capital hegemony becomes redundant, just like the dichotomy between technophobia and technophilia is not the main concern that Stross raises.

Finally, **Accelerando** achieves *the reversal of ethics* Bataille calls for through the construction of the City, which eliminates the possibility of accumulation, inheritance and competition on an institutionalized level, while providing the conditions for the sustainable co-existence of overflowing subjectivities and minimizing the sense of vulnerability which may arise as a result of the displacement of the subject-object distinction in this generalized gift economy. On one hand, it would be a mistake to consider the City as yet another abstract concept such as nation for the conservation of which the individual is sacrificed; it is an automated AI construct (almost taking over the role of the protagonist in this section of the novel), but the actual sum of all its heterogeneous components, including its inhabitants. In this sense, we should once again recall Leibniz's metaphor of city/town, the domain of all possible perspectives which the subjects come to occupy and partially express.

On the other hand, it is not a utopia by any means: Stross does not fall back to the dichotomy between the City as a benevolent machine in the service of humanity against the evil *Mind Children* in the inner solar system. The City itself avoids idealization in its rules, which openly acknowledge the fact that it is inferior to other economic models such as Economics 2.0, which is at this point redefined as a system among many possibilities, simply incompatible with what has become of human species:

If you wish to opt out of this social contract, be advised that other worlds may run Economics 2.0 or subsequent releases. These value-transfer systems are more efficient – hence wealthier – than Economics 1.0, but true participation in Economics 2.0 is not possible without dehumanizing cognitive surgery. Thus, in absolute terms, although this society is richer than any you have ever heard of, it is also a poverty-stricken backwater compared to its neighbors.

Furthermore, technological or economic progress is not a goal in the system of the City, neither is there any other teleological prospect, nor any other purpose for the occurring acts which would come across to some readers not so much of utopian as transgressive, disturbing and morally corrupt. For instance, the games children play are as brutal as current video games, but instead of managing virtual/fictional characters, they physically participate in violence, experiencing real mutilations, torture, pain, anger, fear, disgust, joy, relief, every possible emotion and bodily sensation, just to get repaired and rejoin the world of adults. Switching genders at will has become a commonplace since Amber's generation, and coupled with the ability to possess several subjectivities at once, it inevitably brings forth taboo acts, particularly in new forms of incest – not only one's own multiple identities can have sexual encounters, but one can retrieve their own parents' experiences and re-stage their own consummation, as procreative sex has become an optional, curious fantasy. The same logic can be applied to the entire mechanism of the City: The high values of the modern era such as rationality and utility, no more the basis of the system, become optional constructs allowed insofar as they do not interfere with the process of distribution and excess flow of energy that occur without any purpose other than themselves, which is why the City itself has no symbolic value or even a name other than the self-explanatory reference. Since it is the product of a slow take-off Singularity, which is never dated or consciously experienced in the novel, the

subjects are actually still obsessed with transcendence and finality, which the text at this point problematizes as it is bound to retrieve the old narratives of eschatology. For instance, Manfred takes off for another interstellar exploration, possibly to accelerate the process of yet another Singularity, this time moving up to a Type III civilization on the Kardashev scale which could possess the entire galactic (and possibly, cosmic) energy, although his character at this point seems to have changed to the extent that it is possible to claim that his motivation is pure curiosity as to deep ontological and metaphysical questions he dreams to find in hidden corners of the universe, and the desire to become a part of the cosmic mind. A more definite project which requires finality is that of Sirhan, who is an archivist and a post-Singularity historian recording every human subjectivity in order to grasp the human experience in its entirety and present it in an uploadable form. Unlike the type of identity which marked his mother's generation in its ability to simultaneously co-exist as a multiplicity, Sirhan is literally a palimpsest: Amber, not less coercive than her own mother Pamela, has raised him through a succession of personality uploads which she tried on his son until she found the ideal one, failing to entirely erase the previous ones before experimenting with others. On one hand, this only increases Sirhan's resentment towards Amber, along with the damages he endures due to inheritance laws, for which one cannot simply blame *the inhuman* Economics 2.0, because, as I said, there is not a single injury inflicted upon Amber's empire which is not inherently a part of capitalism to begin with. On the other hand, as he is still in a sort of stupor due to the hangover effect of his previous personalities, he has an enhanced sense of empathy and curiosity for other possible experiences, hence his project which reflects the society-centric formation of the City. Sirhan never figures out what this project could be used for; it could be either a form of currency in relations with possible extraterrestrial subjects in the future, or it can be an aesthetic artefact, an artwork to be given away within the logic of gift economy as it corresponds to the City. While it is true Sirhan is too deflated and faint (especially compared to Manfred and Amber) to be the focal protagonist of this section of the novel, he takes his strength from such faintness. Once again, this is a trait he shares with the City: That

the society envisioned at the end of the novel is “a poverty-stricken backwater” compared to the post-human AI formation in the inner Solar system is not to be considered as a drawback; the acknowledgement of richer systems, the withdrawal from competition in the face of it, the *I-would-prefer-not-to* attitude is its strength. As I mentioned earlier, the narrative voice of **Accelerando** always reflects its protagonist's world vision: The fast-paced and accelerationist narration in Manfred's story, the descriptive and ritualistic mode of narration in Amber's section. In Sirhan's part, narrative voice becomes two-fold. The City which re-generates Manfred's narrative mode, but this time it is much more inclusive, not mimicking a linear trajectory but its spatial advantage of being everywhere and nowhere, containing the past and the future, the human and the partial alike. The second mode of narration reflects Sirhan's character as an archivist, in the form of catalogues, elements of family histories, lists of rules, the more humane tone and direct addressing to the reader who are literally a part of the archive in the context of the fictional present.

Of course, Sirhan's project is never completed in the novel; it is simply deferred, like any other possibilities of finality – and this project is not even possible, considering the ongoing explosion of subjectivities around Sirhan. However, its function is entirely different and unexpected: By switching to the mode of narration to that of an archive, it actually allows the novel to turn back to the contemporary world. This turn initially occurs rather in a playful, tongue-in-cheek manner through the subjective commentaries of the narrative voice which self-critically speaks about the contemporary world and even addresses the reader by means of the City's rules, such as the caution against trusting spammers who pose on the Internet as the Nigerian prince, a joke that would only make sense to the reader in the early 21st century, not to the post-web characters on Saturn. This direction, however, finds a whole different dimension in the following generation, specifically in one of the two forms of existence of Manni, Sirhan's son and his great grandfather Manfred's clone: It concerns the permanent deferral of the most apocalyptic event which occurred during the writing of **Accelerando**, namely the 9/11 attacks. This is wholly expected, since it is in the nature of the City to defer finalities and eschatological visions;

however, the aesthetic-literary solution Stross finds to do so is quite extraordinary. The common practice in postmodernist and neo-Baroque narratives, as we know, is the multiplication of reality, or the exposition of contingency of history. Whereas the post-Singularity technology is in Stross' service to play with such contingencies and re-simulate the future through an alternative present which somehow circumvents the attacks, *Stross makes our actual world impossible* by eliminating the image of the Other from the world of the adult version of Manni, completely isolated from the heterogeneous explosion of subjectivities in the City of which his child version is a part, indulging in excessively graphic reality games I mentioned. This Manni, by contrast, simply watches the landscape of New York, forever frozen right before the destruction of the Twin Towers of the World Trade Center; or, more accurately, the world stops at the moment the concept of the Other disappears. To understand this better, we should consider the importance of the Other in Baroque aesthetics, which significantly influenced the 20th century philosophy and art. In the Baroque, the image of the Other is the ultimate condition of possibility: It is through other monads that a possible world in an individual monad is realized, it is by means of the Other that the entire field of micro-perceptions is generated. Primal emotions such as relief and fear are generated through *other worlds* that another subject (or object, or simply the abstract notion of the Other) invokes in us with respect to the unknown. Moreover, such intervention of the Other in the present towards the future produces an image of the Self as a cohesive succession of past images. In short, the notion of possibility (of the Self as well as time and space) disappears in the absence of the Other. Such is the Baroque twist to the Cartesian view of the individual: If we locate the subject into the infinitesimal unit of time and space, as Descartes attempted, the individual implodes and infinitely shrinks along with that spatio-temporal niche. Instead of a solipsist consequence, therefore, the subject dissolves, as in Bacon's paintings, into the world of objects - and vice versa, in an intense moment beyond time, and in a form of immobility which is more active than movement. This is exactly Manni's world: It is not a spectacle and there is no spectator, since his gaze is equally frozen, inseparable from the landscape and rendered haptic. In contrast to

Sirhan's grandiose project of accumulating the entire human experience, and Manfred's hopes to find a cosmic mind in control of the entire material and metaphysical existence, adult Manni is in a much favourable position to merge with the world of objects in this minimalistic corner, which does contain the entire universe by degrees, and is bound to absorb Manni as its double due to the absence of the Other.

In addition to Bacon's visual art, Deleuze considers Michel Tournier as the pioneer of this specific aesthetic take in neo-Baroque literature, particularly his 1967 novel **Friday, or, The Other Island**, a revision of Daniel Defoe's **Robinson Crusoe**. In this version, according to Deleuze, the possibility of the origin to recreate itself on a passive land is radically problematized by eliminating the condition of possibility altogether, thanks to the absence of the Other which makes *the Island* a more significant protagonist than Crusoe himself (1990: 302). As a result of this process, the origin of Crusoe is hollowed out, the absence of the Other dismantles the distinction between the subject and the object, uniting Crusoe firstly with the Island and later with Friday (who is also the human protagonist of the novel, as the title suggests), concluding in an eroticized fusion with the entire existence. Deleuze calls this new formation *phantasm*, or a simulacrum with no original model, a world of doubles with no binary opposition (1990: 319). Such is the case with Manni: The problem of the origin is even more obvious here, not only because his very ancestral origin is put into question by informing the reader that he is Manfred's clone as well as Sirhan's son, but also with the fact that he is as old as his father Sirhan, at the same time lacking the memory of an adult. As a result, we do not even know if this type of existence is his own decision or a forced fate, a distinction which is crucial for Robinsonade narratives. On the anti-Robinsonade pole, namely the Swiftian-Stapledonian tradition, the necessity of forced isolation is subordinated to the theme of transformation, and at times completely set aside, as is the case in Manfred's final journey. The third option, the most recent one which frequently recurs in science fiction, namely the escape narrative that Ballard calls *reverse Crusoism* (De Castro & Muskat, 2020) by definition requires voluntary isolation, like that of lobsters and

Amber's crew in **Accelerando**, even though characters may not have another option. In Manni's state of existence, such distinction is not clear and that is the entire point: He has no past or Self because his world lacks the presence (as well as *the present*) of the Other, which is why he is timeless: The simulacrum he is a part of is the double of our current world, and he is as much of our own double as he is the double of his child version. This world also belongs to the City, which allows such a timeless existence to emerge at the same time as it derives another aspect from it, that of expansion within time and space, which makes the City itself a heterotopian creation here and now, rather than a deferred utopian fantasy. It is thanks to this feature that I consider **Accelerando** as a narrative which spans three plus x generations, not only because the organic succession of family lines is rendered obsolete as a result of the post-Singularity technology which allows for an excessive production of subjects and objects in a myriad of ways (and virtually eliminating death), but also because of the issuing mode of existence which lacks an origin yet manages to turn back to the heart of our current world.

CHAPTER THREE

TECHNOLOGICAL SINGULARITY: A LITERARY DEVICE OF MULTIPLICITY

Many science fiction writers are literary autodidacts who focus on the genre primarily as a literature of ideas, rather than as a pure art form or a tool for the introspective examination of the human condition. I'm not entirely at ease with that self-description. I just can't help myself. I have a compulsive urge to use that background to build baroque laboratory mazes for my protagonists to explore, rather than being content to examine them in their native habitat. (Stross, 2008)

It may strike the reader as a curious incidence that I still have not discovered or defined what the Singularity is in **Accelerando**. As a key text of post-Singularity fiction, the irony about it is the absence of the Singularity, and the painstaking effort Stross makes to hide *the event* of Singularity throughout the novel. While it contains every possible theme and technological development envisioned in both extropian fantasies and technophobic projections within the non-fictional Singularity discourse including virtual immortality and AI explosion, Stross treats the concept of Singularity itself as a black hole in the text, the horizon event of which remains imperceptible. As a result, we cannot precisely know when the threshold is crossed, when the socio-biological rules are irreversibly bent, or when the text becomes a medium of translation between human language and post-human semiotics – Stross achieves such imperceptibility through the inverse relationship between the novel's vocabulary and linear progression, as we have seen. The lack of *the event*, I claim, supports the initial thesis of this study, that the narrative dynamic of post-Singularity fiction differs from that of apocalyptic fiction, and to a certain degree, the utopia/dystopia dialectic. Despite the non-fictional definition of Singularity as a radical break in the course of history, post-Singularity fiction applies it as an elusive concept which unfolds a rich field of aesthetic production in the present (and falsifies the pretences of non-fictional claims to truth in the discourse), instead of depicting it as an end-of-history scenario. This anticlimactic literature actually makes post-Singularity writers the protestants within the technocratic cult of the Singularity, which arose, as discussed, against the anxieties of natural decay and excessive waste, namely everything that Bataille embraced as the productive force of life – not, of

course, productive in the sense of consumerism or utilitarian ethics: Cybernetics as a protective measure against information entropy (whence the name extropy is derived), and nanotechnology as a buffer tool against biological decomposition are two pillars of singularitarian intellectuals in their conception of the Singularity as the climax of history beyond which it becomes possible, or rather mandatory, to transcend all the biochemical processes we cannot control, in favour of artificial processes which are also to be out of our reach, unless we cross the threshold in a posthuman form and become a part of the Singularity. It is not hard to detect the nihilistic world view behind these speculations, and science fiction readers can easily spot the fact that it only delays the problem of cosmic entropy instead of transcending it (if it is a problem to begin with), while denying the problems such a gigantic project is likely to cause on personal and social levels, not to mention that the more complex a system, the greater decay it generates, which has been frequently addressed in science fiction since the 1950s. As for the former, I have already shown the immediate collapse of the liberal-humanist subject (which is ironically the sacred construct of extropianism that the Singularity is conceived to preserve) as a direct result of the Singularity itself in the previous chapter, as covered in depth in **Accelerando**.

This chapter examines how, stripped of this ideological mission, the concept of the Singularity becomes a flexible literary device, a repetitive and driving force within history and even quotidian aesthetics rather than a transcendent threshold. It builds on the previous chapter, and shows the ways in which Stross problematizes the aforementioned post-Singularity subjectivities, and, using the theme of Singularity as a literary device while doing so, critically projects these problems on political and ethical issues of our own. I start with Stross' 2006 novel **Glasshouse**, which can be read as a sequel to **Accelerando** even though it is a stand-alone novel, as it builds on a possible scenario following the previous novel and is much more accessible to those familiar with **Accelerando**, and it clarifies many of the issues I have so far outlined. From the narrative perspective, it undertakes a challenge the reader may have already thought: If post-Singularity fiction ruptures the concept of individuality

in the sense of liberal humanism through the post-Singularity models so far demonstrated, as in the case of Amber who simultaneously exists in different bodies, or Sirhan who has been linearly erased and recreated multiple times, what would a first person narrative look like? As it combines the two models, the answer **Glasshouse** gives us is one of the most protean protagonists we can imagine, whose body changes five times in the course of the novel, the two being copies of others, three additional past selves including a war tank weighing “approximately two tons” and standing “three meters high” (152), and a sudden disturbing change in personality in the same body due to an intervention in the character's neural make-up. At the same time, the novel shows that the Singularity is not necessarily a progressive leap into the future; it is multi-directional and can move backwards, be it on a personal level, the degree of social-technological development, or on a literally temporal scale, which was already anticipated by Manni's gaze into the current world. **Glasshouse** is much more openly political text than **Accelerando**, essentially a Foucauldian novel which reflects Stross' contempt for gender roles and essentialism, controlling mechanisms and authority, not only top-down forms of discipline but also bottom-up dynamics of oppression, beginning with nuclear family and the self-controlling effects generated by small groups of people, even in a posthuman context. In fact, it will be seen everything I have said about the previous novel turn upside down, as if Stross double-checks his own creation and carefully avoids establishing idealistic goals, for it would contradict the anticlimactic view of history that post-Singularity fiction predominantly enforces. As such, **Glasshouse** raises hard questions that implicitly arise in the world of **Accelerando** but never find a real room to examine, and these questions are not as light hearted as the one about first person narrative. For instance, let us think further about the implications of Sirhan's character formation, a palimpsest of multiple selves erased and uploaded on top of one another: If one of his former selves is a criminal, is Sirhan still a criminal? Furthermore, if it is not his mother or someone else who imposes the change upon him, but if it is Sirhan himself, a war criminal, who erases himself to become someone else, or stays as the same person but only erases the memory of his crimes,

along with the conditions and his subjective components that led to them, and now if he remembers nothing of the events, or remembers them as if a stranger committed those, is he still a criminal? If we are to imagine alternative subjectivities outside the limits of the liberal-humanist individual, our ethical convictions require a revision, and Stross is sympathetic to the current versions of his characters. However, the question does not even concern the criminal records of individuals *per se*, it concerns the possibility of removing tragic events from the collective mind of an entire society, only to be repeated over and over in the absence of a proper confrontation. That is why the protagonist of **Glasshouse**, talking to his/her other self, repeats Hitler's alleged Armenian reference, “[w]ho now remembers the Armenians?” (215) and Stross reiterates the quote as an epigraph to the novel, to summarize the events preceding **Glasshouse** through the damaging results of historical techniques of fact-distortion to generate a sort of collective amnesia. Sharing Alphonse Karr's well-known dictum that “the more things change, the more they stay the same” (1855: 313), **Glasshouse** thus proposes a repetitive notion of history (which is also implicated in **Accelerando**), and as such it is a thematically cyclical novel, demonstrating that no system, including the economic model Stross offers in his previous novel, is immune to the degenerative mechanisms we have to face today – and still, it does not necessarily lead to nihilism, or dystopian deadlocks.

After I examine the layers of the text as the concept of the Singularity augments them, I will look into its other version which I have yet to mention, namely the hard take-off Singularity, or the sudden occurrence of the leap rather than a slow development across generations as is the case in **Accelerando** and **Glasshouse**. This final scenario is found in Stross' 2003 novel **Singularity Sky**, which diverges from non-fictional speculations of the hard takeoff Singularity in that, rather than the sudden technological explosion as a human product, it introduces the Singularity by means of an intervention of disembodied posthuman intelligences on a planet populated by humans whom the authorities keep in pre-industrial conditions, poverty and ignorance. The arrival of alien posthumans called *the Festival* via cellphones they shower from the sky upon villagers may sound like a humorous fantasy, and to a

certain degree it indeed is; however, at the end of our analysis of **Glasshouse**, we will be familiar with Stross' depiction of the universe as a heterogeneous sheet of polities, linked together by wormholes which post-Singularity civilizations can access, making such encounters ordinary occurrences. In this respect, **Singularity Sky** begins with the presence of a post-Singularity civilization before human characters experience a hard takeoff Singularity, but the novel revolves around the effects and superficiality of the latter, or to put it better, the superficiality of our own ideas about revolution. The protagonist of the story is a Marxist accelerationist, a dissident who believes that the technological Singularity is bound to overthrow the tyranny that rules them, dismantle class distinctions and establish a leftist utopia. This is the catch of the narrative: The Festival is apparently on a trading mission, and their intention is not to save throwback communities at all, since they seem to be blind to the concept of progression to begin with. Instead, when it comes to humans, they are only interested in cultural artefacts, constructs, the fields of knowledge we have produced to understand the world and express ourselves, such as mathematics, philosophy, art, and so on. It is the dissident group that volunteers to sell their leftist ideology in return of the technological Singularity, under the condition that they have to prove that their Marxist-futuristic ideas hold true by the end of the trade. As a result, they overthrow the state, but introducing nanotechnology to the pre-industrial society brings about an unpredictable chaos and totally ruptures social stability, leading to another dictatorship to keep things together and presumably prepare people for the true revolution, which is always deferred. This is of course unsatisfying for the Festival, but the point of the story lies elsewhere: We find that there was never a real communication between the two, since they mean entirely different things even when they use the same words. *Trade*, for the Festival, does not refer to free market relations but a particular gift economy, in which participants reciprocally enjoy the process for its own sake: As such, they are only interested in human artefacts for their aesthetic value and not for their utility, while human characters are obviously obsessed with utility value and almost unable to perceive trade outside the rules of market economy, even if they are leftists. What bothers the

Festival most is not even the futility of orthodox economic theories; they soon realize that humans do not *take* anything in this trade, in the sense of their gift economy. Even though they are post-Singularity subjects themselves, the technological Singularity humans achieve means nothing to them as long as they remain self-indulgent, irrational, and persistent in their subject-object relations and theories, which were obviously constructed without any reliable idea about humanity to begin with. This leads the Festival to suspect that human species may not be sapient at all, and since they see the world in terms of informational processes, they come to consider human behaviour inexorably constructed by free market as a malfunction, a software glitch in the cosmic network.

The perspective put forth by the Festival is closely related to my point of departure with respect to post-Singularity fiction as a form of artwork which should not be restricted to ideological analyses on the level of cognition and utility. To clarify this perspective, I will coherently base our analysis on the theoretical framework of previous chapters; otherwise, it would remain as alien to us as it is to the characters of **Singularity Sky**. By the end of this chapter, it will be clear that post-Singularity fiction, an offspring of Baroque aesthetics, uses its main concept as a literary device to diversify its own narratives, rather than a teleological scenario in a linear vision of history stuck between two ideological poles. As a result, we will be able to speak of *Singularities* more precisely than has been apparent up to this point, and even reflect on slow and hard takeoff *counter-Singularities* within the course of fictional future-histories on both personal and social levels. The next novel of my analysis, **Glasshouse**, in fact builds upon the latter, and I shall now turn to it.

3.1. Singularity Reversed: *Glasshouse*

The heroic human being despises his happiness and his unhappiness, his virtues and vices, and in general the measuring of things by the standard of himself: {...] His strength lies in forgetting himself. (Nietzsche, 1997: 155)

But there's a difference between not remembering and deliberately forgetting. (**Glasshouse**, 250)

Glasshouse begins roughly four centuries following the final events of **Accelerando**. From the standpoint of technological development, it is more or less

the same, only more refined and rather stagnant, for what was a progressive series of change in **Accelerando** has become the norm in this text. Humanity, if we can still call it such, has spread throughout the galaxy and is able to use wormholes (embodied as T-gates) in order to travel distant locations and transfer information at transluminal speed. Our planet has come to be called *Urth*, an ancient and forgotten settlement. The first thing to strike the reader is the resulting change in time units, which maintains *second* as its basic unit for convenience but dispenses with solar-based measurements since they do not work in this interstellar context. Time measurement in the text is also closely related to the lifespan of post-Singularity humans, which is virtually infinite: Age is conceived in *gigaseconds*, or 31 Earth years, and unlike modern humans who live up to only three gigaseconds, the characters we handle are tens of gigaseconds old, not necessarily in same bodies or even personalities. Needless to say, body modification has reached magical levels: Not only can damaged body parts get repaired in the blink of an eye, it has also become possible to make changes to the human body, and even choose a *xenomorph*, or non-anthropomorphic body for one's own. This is a specific case of matter disassembly/reassembly technologies, which allow the characters produce any item at will, through nano-factories called *A-gates* which are found anywhere: The pocket of one's clothing, or a cabinet in a room can function as an A-gate, used to manufacture virtually everything from a simple piece of food to a back-up of one's memory or a copy of one's body. Speaking of clothes, they have become multifunctional: A nano-factory, an exoskeleton which limits biological constraints and sexual dimorphism, an interface which allows for a better interaction with surroundings as though a computational skin. As pieces of information, many things about post-Singularity characters are public and accessible, but they are able to keep certain personal details private, and even switch themselves off to wander about anonymously, in which case invisibility becomes bilateral. In addition, AI entities varying in degrees of complexity live and work among post-Singularity humans, and not under the disguise of forms familiar to the reader, as was the case with Aineko in **Accelerando**.

In short, we do not encounter a less developed technological landscape than the final pages of the previous novel. This is not, however, a futuristic utopia; on the contrary, the reader soon realizes that it is a wasteland par excellence, and the technologies listed above can only recycle the waste through nano-engineering, unable to offer a real remedy. The story begins when Robin the protagonist meets Kay, a “dark skinned human with four arms [...] clad only in a belt strung with human skulls” (3). It is a rehabilitation complex for those who had a memory incision surgery to various degrees, designed to have them socialize and adjust to their postoperative selves outside their therapy sessions. Not everyone opted to erase their memory entirely, as it seems: Kay's initial conversation with Robin, for instance, reveals that she used to be a researcher on a distant planet inhabited by *ice ghouls*, creatures only as advanced as contemporary humans, and she chose to be literally one of them, the only difference being that the average ice ghoul would die in several Earth decades just like humans, whereas Kay was virtually immortal, which left her in an agonized state once she felt emotionally attached to them. Therefore, Kay's surgery was only concerned with the removal of pain, while Robin remembers absolutely nothing about his past lives except for several foggy scenes, and tries to make sense of them in accordance with a very general and vague written record of himself, and a letter by his old self which may not even exist. This gives Kay the upper hand in the beginning of the story for several reasons, most importantly because she is able to contain two impossible worlds in her exotic, almost too stereotypical body of a coloured and voluntarily otherized posthuman female: One that Stross clearly sets up as an analogy to our own world, and the other in which the novel takes place. Kay's superior grasp of the latter initiates the narrative and becomes the amnesiac Robin's guide, even though Kay, like others in the rehabilitation centre, has also had her memory erased, albeit partially.

This procedure seems like the logical consequence of the Singularity. The characters in question, after all, are literally micro-civilizations in terms of their lifespan, information/memory capacity, and interaction with the world of objects which are almost inseparable from their bodily extensions: It is only proper that these

micro-civilizations will need to experience personal singularities and reset at some point due to an overload of memorial information which would render further action impossible. Considered this way, it reads like a nod to Nietzsche's concept of active forgetting, a Dionysian dissolution of the Self, a prerequisite for the destruction and revaluation of moralistic values, rather than a passive absence of memory. In Nietzsche's philosophy, active forgetfulness makes room for change, eternal return and authentic *action*, namely the opposite of *reaction* which he associates with slave morality based on memory, conventions, and a hostile attitude towards the image of the Other, without which moralistic values could not exist. Can we claim, then, that Stross depicts the *Übermensch* in Robin, a man of active forgetfulness? For a Foucauldian text, it is a proper question, since much of Foucault's thought is influenced by Nietzsche, particularly his method of archaeology derived from Nietzsche's genealogy. It is not an easy question, but the final answer would be perhaps that Stross' Robin is a parody of it, first and foremost because *ignorance* suffuses Robin's character, a feature quite incompatible with the *Übermensch*; forgetfulness is futile if one does not even know what he has forgotten, as though he never possessed it (although that is still a Nietzschean gesture, since the counter-myth of the *Übermensch* itself is mostly a biblical parody). Furthermore, far from a superior species, these posthuman characters, most significantly Robin, are in extreme agony: They have pretty much regressed into a larval stage, straining hard to crawl. Like the brutal games of Manni's child version at the end of *Accelerando*, people in the rehabilitation complex participate in reckless sword duels and orgies, as the alien mindscape examined in the earlier chapter is pretty much hollowed out here and characters have nothing but their brand new bodies they can only use instinctively.

Speaking of instincts, Robin finds himself curiously dexterous with weapons, increasing his suspicions that one of his former selves was involved in the war that has led to this wasteland, at the same time letting him confidently engage in duels without restoring a back-up of himself unlike many others. This is, of course, his excuse for not having a back-up; the primary reason is that he is suicidal. He comes

to believe that the reason his former self decided to undergo such a comprehensive memory excision surgery is that he possessed some dangerous information, and grows paranoid that he is still being watched to get punished for what he did or knew. On top of that, the discrepancy arising from having an energetic body of a young adult at a supposed age of over two hundred Earth years, and feeling inexperienced as a child makes him feel unbearably mutilated and vulnerable:

Here I am, awake and alive—whoever I am. *I'm Robin, aren't I?* I have a slew of fuzzy memories, traces left behind by memory washes that blur my earlier lives into an impressionist haze. I had to look up my own age shortly after I woke. Turns out I'm nearly seven billion seconds old, though I have the emotional stability of a postadolescent a tenth that age. Once upon a time people who lived even two gigaseconds were senescent. How can I be so old yet feel so young and inexperienced? (11)

This condition, when revisited from the perspective of Nietzsche's equation, ironically takes an aspect of black humour, for Nietzsche occasionally speaks of the *Übermensch* as a child. Take, for instance, his famous three metamorphosis, where Zarathustra speaks of spiritual stages of humanity through the metaphors of camel, lion, and child, respectively. The camel represents asceticism, timidity, finding strength in subservience and burden (of memories, conventions, so forth), while the lion is obviously the destructive force, able to achieve its own freedom yet insufficient to create new values. Finally, the child is the ultimate stage, “innocence and forgetting, a new beginning, a game, a wheel rolling out of itself, a first movement, a sacred yes-saying” (2006: 17). It is apparent that Robin the child does not denote a new beginning. In fact, he has lost his beginning and, stuck in a deadlock, cannot even say yes to life. If this state of being really defined Robin, one could even make a case of him resembling the camel in Nietzsche's spiritual hierarchy; or was it his former self, who succumbed to such a disempowering regression? Did he ever pass through the lion stage? Perhaps, his most primitive version is yet to come, since the text sets out to reverse much of what we assume about organic progression. This reversal does not only account for the narrative strategies which counteract conventional forms of representation; as I answer these questions, I shall also keep in mind the potential of Robin, as a Baroque character, to simultaneously contain all stages despite his lack of them, and even function as their

quasi-cause in the face of his anachronistic position, with the data he possibly knew or the act he allegedly did during the war as *the dark precursor* of the story, which both reconstructs Robin's impossible stages and allows for their communication.

I shall offer answers to these questions in a minute, but I should note that Robin's case is not peculiar to him. His state reflects the post-Singularity society Stross depicts in the novel. Just like Robin is disconnected from his personal past, and the access to posthuman technologies does not relieve his pain, the society he finds himself in has lost historical records almost entirely, even though they have the technology to simulate any event in the present and experience its possible outcomes in the future. Particularly, our pre-Singularity era between the mid 20th and the mid 21st centuries, which they call the pre-Acceleration world, has become dark ages and a subject of curiosity, not unlike our relationship with the future. In other words, the mastery of history as we pretend to possess has entirely changed the temporal direction in **Glasshouse**, and informational command encompasses the future as opposed to the level of certitude our pre-Singularity world seems to exhibit regarding history. This is partly because the material conditions, information transfer and energy systems of the two worlds are too different to communicate: That is to say, we are as alien to them as they are to us, and it is not unusual for the biological human experience to be the only lacking thing in this high-tech wasteland. However, just as we cannot read Robin's personal journey merely as a Nietzschean allegory, there are more sinister reasons for this rupture, and the reader gets a glimpse of it early in the novel because it is still common knowledge for the characters: In the years following the events of **Accelerando**, it seems, general economy of *the City* we have examined in Bataille's terms prospered and led to *the Republic of Is*, an interstellar civilization organized according to the logic of what we know as peer-to-peer file sharing in its most simplistic form. Later on, the Republic of Is faced a sudden counter-Singularity, initiated by a malware known as *the Curious Yellow*, spreading through the same sharing-based system. While T-gates and A-gates used to be means of distributing excess and recycling waste, the Curious Yellow became pretty much the anti-matter of the system, erasing memories and information on its path, disconnecting locations

from the rest of the Republic and infecting people. This amounts to death in the post-Singularity context: As demonstrated in the previous chapter, in order to designate free access to information as an essential right, Stross redefines humanity itself in terms of informatics and applies it as a vital element in the construction of his post-Singularity characters. Censorship, therefore, replaces death, and the war in the background story of **Glasshouse** is a censorship war, which leads to the demise of the Republic of Is, the emergence of separate polities, local dictatorships, various fractions, and throwback societies resisting the fight against the Curious Yellow. The malware at the end of the war, the reader is informed, was pacified and controlled, but things have never been the same since: The old dichotomy between freedom and security has returned, T-gates have become controlled borders with firewalls of which the pacified Curious Yellow is a part (not even entirely safe, but that was the only choice left, it seems, for they never managed to eradicate it), and most importantly, the entire population is now cut off from their roots, even though the war has not resulted in a significant setback in technological development. Robin's rehabilitation complex is now located in the Invisible Republic, a demilitarized zone, apparently not secure enough to relieve him of his suspicions that he is still watched for something he did or knew in the war years. That is why the idea of *the Yourdon experiment* makes sense to him when he learns that a professor called Yourdon (along with Fiore and Hanta, other two experimenters) is looking for volunteers to be locked up in a high-security lab to simulate the pre-Acceleration era, for three Earth years minimum – Robin actually neglects *the minimum* part and considers it a good idea to disappear for a while, as it sounds like a small society (made up of approximately twenty groups of ten people), isolated and controlled in anonymous bodies and identities, forbidden to speak of *the outside*. Moreover, he finds a reason to live in Kay, with whom he starts to fall in love after what it seems to be a purely impulsive relationship. They promise to look for each other in the polity or at least wait until the experiment is concluded, and another example of what Ballard calls inverted Crusoeism in contemporary fiction (or voluntary isolation as mentioned earlier) thus begins. Ninety percent of the novel takes place in the Yourdon polity, or

the Glasshouse, where Robin becomes a woman called Reeve.

I should resume my analysis with a disclaimer on the term *voluntary isolation*, because this is also a specific instance of personal Singularity par excellence, and as such, Robin's allegedly voluntary acts are mere pre-Singularity and pre-individual quasi-causes for Reeve's current state, mostly unbeknownst to her, even though Robin himself is a post-Singularity character as we know. Such is a perfect example of post-Singularity irony: The protagonist herself does not know that she is now the narrator and creator of an entirely different perspective, not only because of the physical transformation of her own body, but also the baroque laboratory she finds herself locked in, and namely the impossible world of which she is now a part and in which she must occupy or construct a new perspective in order to exist and express this new post-Singularity setting. In fact, Robin is diminished as a whole to a pre-Singularity narrative relic and left behind in this event of the second Singularity, even though it seems like the narrative voice belongs to one person, while the fact is that Robin and Reeve are not exactly the same person. Furthermore, during this process, the concept of consent becomes highly problematic: For instance, Robin's sex assignment is not consensual. In fact, when Reeve wakes up from the booth which was an A-gate where Robin had finally decided to create a back-up for himself, she does not even remember actually signing for the experiment. What bothers her, when she finds out she is now a female (she perceives it in purely biological sense of the transformation and does not use the word woman as a gender, which is an important difference for our following discussion), is the thought that whoever has been after her all this time must have intervened in the back-up process and stolen or killed Robin, leaving Reeve as the back-up/copy itself. This is not the case, however; Robin apparently signed for the experiment right after backing himself up, but this particular act was not recorded in Reeve's memory. She is now in the experimental polity, a simulation of the 20th century suburban environment strictly organized according to traditional gender roles: "So, in summary, I'm short and weak and unarmed, but cute if your sense of aesthetics centers on oldfashioned body plans" (32).

Another thing Reeve is entirely unaware of is the title of her own narrative. Ironically, Reeve is not alone in ignorance: The term glasshouse obviously refers to British military prisons, derived from the glazed roof of the notorious 19th century Aldershot military prison, subject to heated riots after the WWII until its final destruction in 1958, but Stross says that the reference usually goes unnoticed by the readers of **Glasshouse**, perhaps because he deliberately excluded further implications of a military prison from the text, except for the title (2013). This is also because throughout the novel, Stross has his characters compare the polity to a more intriguing and global model, not restricted to prisons but extending to institutionalized methods of self-discipline, namely the panopticon. Indeed, the experimenters in the polity do not seem to have an access to any technological means of surveillance not available in the 21st century, at least there is no evidence of their use; however, just like the panopticon, that is sufficient for the subjects to feel observed and internalize the desired behaviour through repeated acts. Furthermore, as I will show in a moment, the subjects of the experiment soon embrace their roles and actually start to compete with one another to obey the rules better, intensifying the bottom-up social oppression and even rendering the monopolized authoritarian force obsolete. In addition, actual prison experiments and current atrocities inform Stross' conception of the glasshouse. The two most important of these are war crimes committed by the CIA and United States Army against detainees in the Abu Ghraib prison during the Iraq War as exposed in 2004, and the famous 1971 Stanford prison experiment which had to be stopped in six days because the volunteers who were assigned as prisoners and prison guards by a coin flip quickly took on their roles and the mock prison turned into a real torture chamber. Regarding the influence of these events on *Glasshouse*, Stross states:

These experiments suggested that atrocities are in many ways situational: rather than arising from the behaviour of corrupt individuals, phenomena like the prisoner abuse at Abu Ghraib happened because the environment itself is inherently corrupting and most people will obey what they perceive to be lawful instructions emanating from a legitimate source of authority even if those instructions are themselves illegal or inappropriate. [...] And then another weird idea dogpiles the first: why not take the Stanford Prison Study protocol and apply it to gender roles among a bunch of posthumans who'd be at home in an *Eight Worlds* type environment—one in which physiology and gender and biology are mutable? What happens if you pin them

down at random, frozen in one form or another, and give them incentives to conform to arbitrary roles, as a way of interrogating the assumptions and stupidities we take for granted? (2013)

In a single (and certainly a *singularitarian*) move, Stross indeed piles many ideas and topics upon one another: Prison, militarization, sex assignment to posthumans, our own arbitrary gender roles, inappropriate instructions emanating from a seemingly legitimate source of authority. For one thing, a homo sapiens body doomed to decay and destruction is a sickly prison and a ticking bomb to a post-Singularity immortal. At the same time, it becomes one's only and permanent means of resistance against the external prison(s), which prompts Reeve to do regular strength training in her garage, the private and neglected space that becomes Reeve's resistance atelier throughout the novel. Secondly, Stross clearly compares wartime atrocities and the results of prison experiments to conventional norms – most notably patriarchal gender roles – as pieces of clothing glued to our skin; even though their intensities, frequencies, and the contexts in which they occur seem entirely different, his point is that the behavioural mechanism behind both is the same, and the latter is not less dangerous than the former. Further still, this leads to the third issue, and that is posthumanism in relation to gender. We should keep in mind that Stross' post-Singularity characters do not have a skin on which social norms can stick to merge with it. In other words, they do not have a permanent biological sex that can be ideologically posed as the natural basis of gender: Early in the novel, every time Robin encounters someone, he pays attention to what body they are currently *wearing*. Physiological traits, therefore, are literal pieces of clothing to these characters. Can the absence of a constant physical experience associated with sexuality and gender prove sufficient to abolish gender altogether? If that were the case, are they in a higher state than the current human condition, or would that make them actually more vulnerable and oblivious rather than more equipped in gender politics in a scenario where these roles re-emerge? In the baroque laboratory Stross sets up for the reader, we know that the he/she pronouns still exist whenever a posthuman character picks a body which can be described in pre-Singularity terms, be it Robin's orthohuman male body, Kay's semi-xenomorph female body, or half

human/animal bodies we encounter early in the text, even though these pronouns do not seem to have any social consequences; rather, they are linguistic conveniences like second as the basic time unit, and traits with no greater significance than other physical aspects such as hair or skin colour. In this sense, the post-Singularity world as Stross conceives it does not eliminate sexuality or reject the material body; instead, they just become a matter of free choice, possibilities among many others. However, this only means that these characters are not *sufficiently beyond* sex or gender: That much of a remnant is sufficient for the experimenters to simulate the pre-Singularity social order, for when the subjects enter the glasshouse, the ease with which they understand gender roles and embrace them without requiring any adaptation time is both a curious and disturbing case. They are only given a set of directions, explaining how the experimenters think humans in the 20th and the 21st centuries must have lived (based on the limited amount of information they have), and how the scoring system works in the polity. As it turns out, every cohort in the experiment will get a weekly score according to how each member complies with the rules, and every weekend they will meet other groups in church gatherings conducted by *Bishop Fiore* (one of the experimenters), in order to evaluate people's performances – his sermons, needless to say, quickly turn into a farce of indoctrination achieved through public shaming of misfits, glorification of high scorers, and subtle encouragement for denouncing the members of other groups in case of an unacceptable act. When the experiment is over, the subjects are told, they will be rewarded based on their score sheet. This quickly turns each cohort into a self-sustaining panopticon, with its members watching out other members to keep their collective score high, while looking for improper acts in other groups to exact bonus points from them. The system becomes its own end as people start doing whatever it takes to score high without even thinking of the promised luxury at the end of the experiment. Such is the flip side of Bataille's thought: Everything happens for its own sake, and it is only when the system assumes the pretext of utility that violence in institutional forms and accumulation of power/wealth become inevitable. In this sense, the medium of accumulation is the scoring system, which replaces the

Capital.

On the other hand, it is not so easy for Reeve to give in to the backward change. As soon as she becomes a woman, her mind turns rebellious and the elaborative eye Robin had thanks to his paranoiac suspicions in his post-surgical environment now turns critical towards the tangible absurdities she witnesses. Initially, she does not intend to revolt or even seem to be aware that her personal uneasiness and curiosity will be deemed as such: For instance, she has a hard time making sense of dress codes, why women must wear the most uncomfortable clothes she can imagine (and she picks the most comfortable ones among them), going so far as to take her clothes off in public, genuinely curious about what could be so bad to violate dress codes, which gets her almost detained by the police and makes her the first subject of mockery and rebuke in her cohort in the following church meeting, and an example of what may *at the very least* happen if one does not learn self-discipline in this panopticon. She is not less confused as to why men are so prosaically uniform in meaningless suits and same haircuts when she meets other people in her group, consisting of five men and five women, expected to match as spouses immediately. If the new society was not heteronormative, she would be drawn to Cass, whom she thinks must be Kay because Cass mentions ice ghouls in the very first gathering. Instead, thanks to their common maladjustment, the most proper match for her is Sam, an introvert, shy and depressed man who, unlike Reeve, has already accepted that everything in this polity is artificial and irrational, and there is nothing they can do about it; Sam is actually the only male character in the novel we get to know closely that struggles to cope with masculinity. It is only expected that the narrative from Reeve's perspective lacks thorough depiction of other men, who are given full-time jobs while women stay home and occasionally socialize – and Sam does not hang out with other men after work, which leaves the church gatherings for Reeve and the reader as the only opportunity to observe masculine behaviour in this society. The other exception is what we hear about them from women, or to put it better, occasions of domestic violence. The most striking example in this context is Mick, Cass's husband, a misogynist who locks up Cass,

forbidding her from meeting other women and even going to church gatherings, where Bishop Fiore labels her as a sleepy and lazy woman while everyone knows the truth, adding to Reeve's anger for the neglect with which she encounters from her peers after she receives a phone call from Cass, asking for help:

"I need to get away from here," she insists again, her voice breaking. "He's crazy! He's read the manuals and he's insisting he's going to get the completion bonus, and if he has to, he's going to force me to do everything by the book. He went out this morning, locking me in and taking my wallet—he's still got it— and when he got back, he threatened to beat me up if I didn't prepare a meal for him. He says that for maximum points the female must obey the male, and if I don't do what the guidelines say, he'll beat me up—shit, he's coming." (52)

The social reaction – or the lack thereof – towards Cass's call is quite familiar for the 21st century reader, and seems disturbingly authentic: The subjects of the experiment have not only quickly learned how to behave, but also in what issues they are not supposed to intervene. The prototype character in this sense is Jen, a conformist woman who functions as a self-proclaimed police and informer in Reeve's cohort, with unnerving skills at exhibiting perfunctory courtesies to disguise her total lack of sympathy for anything but the group's overall score. When she learns about Cass's call to Reeve, however, she cannot hide her cold-blooded stance on ethical issues, since she has other things in mind that troubles her, namely Reeve's dress code violation and Cass's struggles with adaptation – Jen actually thinks that Cass should try harder to fit in and stop seeking attention, and puts her thoughts about the call bluntly: "What business of ours is it? What's between a wife and her husband is private, as long as it doesn't threaten to drag our points down or get our whole cohort in trouble. Apart from the other thing, of course." *The other thing* she mentions is sexual intercourse between couples which gets extra points, leading Jen to think she in fact *should* intervene even if it is a private matter – she and her friend Angel even venture to inject sexual stimulants into Reeve's leg without her consent, since Reeve and Sam establish an asexual bond and are the last couple to have a sexual relationship. This hypocrisy which issues from calculating every act as a mathematical equation on the score sheet only encourages the likes of Mick, to the extent that he eventually impregnates Cass (for bonus points) by cutting her achilles tendons, tying her to bed and repeatedly raping her. After Reeve, Sam, and several

other neighbours with a sense of compassion and ethical responsibility left in them break into Mick's and Cass's house to rescue her, Fiore only *tolerates* them for saving a fellow in need, especially for saving her pregnancy, which he seems to value more than Cass as a person. In the meantime, Jen's growing habit of moralist snitching leads to the lynching of two people from another group for adultery, causing Yourdon's indignation towards Fiore for letting things go too far, since experimenters do not desire a fragile society on the verge of chaos.

In short, the issuing community is shamelessly human, but all the while Reeve thinks that experimenters must have misinterpreted the fragments of information regarding the 20th century humanity that she cannot believe was so backward, brutal and irrational to the extent that they would consider adultery worse than domestic torture. In a sense, Reeve is right: The glasshouse is an eclectic space. It seems to be modelled on the 20th century middle class and multicultural American suburbia – even though Reeve's vocabulary does not contain the concept of race, her physical description of Jen pictures her as a white woman while Cass is black, which is a curious incidence and would be the subject of a study of its own, but it suffices to say that terms like multiculturalism or racial background have no meaning here except for sheer and forged appearance, since these people do not have any experience associated with them. Furthermore, Fiore's planned aggressive style comes across as an evangelical bishop. However, such connotations are not meant to create a realistic simulation of a specific period or location; if that were the case, the readers of **Glasshouse** could feel as if the cases depicted in the novel were only local problems in the 21st century, but the truth of the matter is that Stross could as well set his patriarchal scenes in the Middle Ages and still call it 21st century as long as he set up a genealogical or archaeological relationship between the two. In fact, in **Glasshouse** he deliberately makes his setting look forged, to the extent that most of his posthuman characters have no perspective whatsoever; they are just mouthpieces of the consensus. As mentioned in the first chapter, the greatest struggle of science fiction since the 1980s has been to distinguish the consensus and marketed/conformist ideas from *active perspectives*, which need new forms of

aesthetics to be generated. Here Stross clearly puts some distance between this ideal and the dominant discourses which he sets out to subvert, and such distance also informs the difference between the content of the setting he creates and the aesthetic of his artwork, even though the post-Singularity setting makes it easier to get the point across since it essentially depicts everything as artificial. This is because the point he makes in the text is quite Foucauldian, that humanity has not necessarily become ethically superior in the modern period, but has only found more efficient ways of control: The panopticon is one of the symbols of this transformation. The novel ends with a similar transition which, as I shall discuss, can be read both as a subtle rephrase of the closing statement of Orwell's **1984** (i.e., "He loved Big Brother") with a sinister authorial smirk behind, or an optimistic gesture towards the future, but what remains certain is that Stross' post-Singularity characters are not ethically superior either, or to put it better, they are historically contingent like humans and there is not an essential posthuman identity we can set up as an ideal. In fact, if a post-gender and post-biological society can so quickly revert to patriarchal norms, the post-feminist position – that we have for the most part overcome gender inequities and that Stross just nitpicks and tactlessly forces extreme cases on to the reader – becomes the most dangerous one. This is not even necessarily confined to gender. His stance runs against essentialist worldviews in general, along with homogenizing and linear readings of history, particularly liberal progressivism insofar as it fails to historicize the present as an eclectic organization of discourses with their own genealogical traces rather than transcending systems hierarchically superior to the allegedly superseded ones. Such is the actual problem of his glasshouse society: Faced with a new social phenomenon, they are unable to conceive an accurate network to put it into a historical perspective – or at least, this is not as intriguing as the scoring system they are offered, and the apathy and oblivion issuing thereof makes them more susceptible to corruption, not because they are intrinsically bad, but because the situation is corrupting. Our condition is not better, neither are our roles less forged and artificial.

There is yet another Foucauldian issue to be mentioned, and it is closely

associated with a proper analysis of Reeve's character, namely *the fascist in all of us*. "The major enemy, the strategic adversary is fascism," Foucault writes in his preface to **Anti-Oedipus** by Deleuze and Guattari, "and not only historical fascism, the fascism of Hitler and Mussolini—which was able to mobilize and use the desire of the masses so effectively—but also the fascism in us all, in our heads and in our everyday behaviour, the fascism that causes us to love power, to desire the very thing that dominates and exploits us" (1983: xiii). Similarly, once Reeve's critical attitude shifts from personal discomfort to the glasshouse polity as a system, she starts to get haunted by the monster(s) in her head more and more intensely, to the extent that her struggle becomes twofold. This shift occurs when she decides to get a job out of boredom and also in order to stop feeling like Sam's parasite: She is assigned as a librarian trainee, an assistant to the current librarian Janis whom she is supposed to replace after her indefinite maternity leave. Initially, the idea of pregnancy is entirely alien to Reeve, since in her post-Singularity habitat it does not exist and sex is not associated with reproduction:

For a moment the world seems to be spinning around my head. There's a roaring in my ears, and I feel weak at the knees. It's a good thing I'm sitting down. Then I begin to integrate everything and realize just what's going on. Janis is pregnant—she's got a neonate growing inside her body like an encapsulated tumor, the way humans used to incubate their young in the wild, back before civilization. (90)

The shocking effect which the idea of pregnancy has on Reeve obviously does not merely arise from physical differences between humans and posthumans. The real problem is an ethical one in the chain of reasoning which follows: Since they do not have the medical technology to turn their bodies fertile at will, she figures, Janis and everyone else in the polity must have been given fertile bodies by default, and once again, she does not recall having consented to undergo such a laborious experience and raise a child if necessary. Furthermore, this is when she realizes the experience was supposed to last three years *minimum*, but now with the upcoming generation there seems to be no end to it: Apparently, under the disguise of experimental authenticity, women's bodies are turned into a factory to keep the experiment going – and possibly, to spread the Curious Yellow as she will suspect later, after finding out she and Sam cannot hear the expression *I love you*, which

means they are infected with the malware. Last but not least, these children will be born into an experiment, obviously without their consent. For the reasons we can summarize thus, Reeve becomes a true opponent of the glasshouse polity as a whole while the women in her cohort look forward to getting pregnant (for bonus points without any child raising plan whatsoever, needless to say, rather than genuine instincts), and determines to discover what the experimenters are up to. She takes up reading all she can find about how ancient humans lived in order to compare the data remains with the experimenters' interpretation, she goes through outmoded catalogues where the subjects are coded, and starts to work in her garage to duplicate the key to the chamber in the library where only Yourdon and Fiore are allowed to enter, at the same time building a Faraday cage to cut off the signals of her whereabouts when she is inside the chamber, which turns out to contain an A-gate. The experimenters, after all, can access to post-Singularity technologies and do not restrict themselves to the 21st century conditions: Suspicious of Reeve's behaviour, Fiore even leaves a copy of himself inside the chamber, resulting in Reeve's first murder. This opposition phase culminates and concludes with Reeve's almost mythical and satirical ascent through a vertical passage to upper strata of the glasshouse: Literally climbing over the fake sky hovering above their suburbia, and compromising her physical health to do so, she discovers that this infernal prison is much larger than they thought, and is expanding to host more prisoners.

In the struggle this process ignites in her mind, however, she could not be further from the heroine of ethical action and the voice of reason. In fact, if her recollections have any validity, she is the villain of her story that haunts her in unbearable nightmares, compared to which her daytime acts of resistance are but a distraction. Rather than Reeve's true background that should be taken at face value, however, the totality of her fragmented memories is certainly coherent with the novel's general examination of how a decent human/posthuman can at any given time become depraved if the situation itself is corrupting, and nobody is exempt or safe from repulsive crimes which they under regular conditions condemn, and for which they most of the time only choose to blame the criminal instead of seeing the entire

pervasive network behind it, since they are also a part of it – and this everyday habit is not less of a denial than the memory expunging procedure which the likes of Reeve's former self went through. In her case, she used to have a polyamorous family consisting of four partners, both gender-fluid and species-fluid, before the Curious Yellow pandemic outbreak erased them from existence and cut off her connection with her native home, while she (at the time a male) was on a distant location as a researcher of the history of the theory of mind. In particular, she was studying a curious case which happened in the period right after Manni's generation, even though Manni's name is not mentioned: Apparently, his peculiar form of existence which we saw in the previous chapter became the norm and led to a stagnant civilization instead of reaching its potential that it had in the neo-Baroque aesthetic/artistic sense, resulting in a population of “zimboes, quasi-conscious drones operating under the aegis of an overmind” (130). The study is cut short, and soon not only this curious era but the entire history is erased, along with Reeve's family. Alienated, forlorn and deterritorialized, this version of her apparently opted to work for the fighting squad of Linebarger Cats (a proper and possibly coincidental concurrence with Nietzsche's lion metaphor) by becoming a giant war tank, taking the 20th century British soldier and military theorist Liddell Hart as his/its alias and turning into a heartless killing machine that would attack infected planets and suppress resistances if necessary. One particular scene keeps coming back to haunt Reeve: They were assigned to invade a planet and copy its inhabitants molecule by molecule, to revive them later – those yet to be infected would be reincarnated as they were, and others would be re-instantiated after *cleansing* their system of the malware. Not a remarkable process in itself, but in this case they did not have sufficient time to complete it; instead, they were commanded to ditch the bodies and take the heads of inhabitants with them, and they failed to recover those people, resulting in a sheer genocide, a planet full of beheaded inhabitants, Stross' grim take on the mind-body distinction. Moreover, it was not out of remorse that the person he became after the war (i.e., the writer of the vague letters to Robin) went through a memory excision surgery: According to Reeve's recollections, he did not even have

his memories erased, but only *temporarily disabled Robin's access to them*, so that he could enter the glasshouse undetected as an agent to discover what it was all about. The novel never reveals the true meaning of the glasshouse or the motivations of the experimenters, and Reeve's self-assigned mission turns into a Kafkaesque pursuit – as such, there is not really one single true meaning of this bizarre place and not a rational ground of the experimenters. However, she is not the only former criminal in the polity: Sam, one of the most harmless characters in the novel, reveals that he is Kay, and a former war criminal himself. During the censorship war, he confesses to Reeve, he was on the side of solipsists (which is bad enough in the post-Singularity context), and he was a serial rapist. That is why, he goes on, he moved to a distant planet to live as a member of a primitive alien species (i.e., ice ghouls), and that is why he picked a semi-xenomorph female body when he returned to live among posthumans. For someone with body dysmorphia who hates everything that reminds him of humanity and posthumanity alike – because of his own crimes, getting imprisoned in a male body is the worst case scenario: “I nearly killed myself on the second day,” he tells Reeve, “but you didn't notice” (128). It turns out that everyone in the glasshouse is in fact a war criminal: War is itself a crime that absorbs all participants one way or another.

With respect to Nietzsche's remarks on active forgetfulness in relation with ethical development, it is evident that **Glasshouse** reverses this paradigm – which is only expected from a post-Singularity novel: Instead of dismantling of the Self through active forgetfulness and the issuing revaluation of external values which cannot exist in the absence of the Self that they construct, Reeve is at her highest insofar as her recollections develop vis-a-vis external values. In other words, she comes closest to Nietzsche's *child-übermensch* when she becomes a woman, not in the form of a superior species but a biological female, as authentic as a posthuman can get – this is not to attribute an essential trait to human nature, of course, for we know that this transformation does not have such an impact on other subjects. In fact, it is when she is disconnected from her memories that she embraces norms, morally deteriorates and declines as a novel character, which makes her narrative hard but for

this very reason necessary to read. The regressive transformation in this sense occurs following the introduction of the third experimenter, namely Dr. Hanta, who plays the good cop not just to Reeve, also to the reader, by seeming genuinely concerned with well-being of the subjects (for the sustainability of the experiment if nothing else) and highly critical of Fiore's old-fashioned ways of handling people – just what Reeve needs to hear at the peak of her rage against the polity, and of her own struggle with her past which intensifies at the hospital she is taken after her unsuccessful escape/discovery attempt that almost kills her of exhaustion. The problem with Hanta's approach, as it can be expected, is that she diagnoses Reeve's agitated state as a personal disease that makes her unhappy, and will make it impossible for her to adapt and grasp the reality of the polity if it is left untreated. As a result, she injects *fixatives* into Reeve's system in order to disconnect her from her past selves forever, and after this intervention we have an entirely different Reeve. The first clue is that she does not remember consenting to it – every time the narrator is reborn as a different person, the issue of consent becomes problematic primarily because the present self cannot recall the decisions of the previous one, except for the last two transformations I will elaborate in a moment. In this case, the former Reeve apparently consented to the procedure in the middle of her lucid nightmares, psychotic fugues and fits; however, it is Reeve's positive reaction to Hanta that reveals her as a new person, who now actually feels relieved and grateful: “Meanwhile I'm thinking, *Shit, I'll never be able to figure out where I've come from now, will I?* But it's not as bad as what was going to happen otherwise” (185). Recovery, in other words, is absolute normalization, and the very first thing she does when she is discharged from the hospital is to go shopping and get ridiculously gaudy clothes in order to seduce Sam, which only scares him as he realizes that she is not really herself. Indeed, this *fixed* version of Reeve becomes conventional and conformist in every aspect, manically and artificially happy at the present moment detached from the past as long as she observes that everything is in order – just like Jen, her nemesis in the cohort. She even intends to snitch on Janis, her colleague and confidant, as a rebel at the very next church meeting, for her own good in her mind,

as she now comes to consider compliance as a prerequisite for one's well-being. In the absence of memories, that is to say, another fascist in her mind is born. Fiore, on the other hand, cannot bother to hear about Janis at this point, since he has a very troubling issue to deal with: Mick is brutally murdered in the church, in the same exact way that Reeve, before getting to the hospital, had fantasized as a revenge for what he had done to Cass, whereas forensic evidence indicates Fiore to be the murderer, leaving both Fiore and Reeve puzzled for their own reasons. Stross does not keep it a mystery for long: Apparently, before her attempt at escape, Reeve got a back-up of herself in the body of Fiore, and it was him/her who murdered Mick. Ironically, this fake Fiore is the old version of Reeve that narrates most of the novel, and he takes over the narrative as he physically restrains Reeve and kills her (for she has become a danger to the resistance), before shedding Fiore's stocky and old body and turning entirely into Reeve again. This metamorphosis, however, has a significant difference from the previous ones: Both the reader and the person that is constructed are entirely conscious of the procedure. More importantly, *the latest* Reeve does not merely switch bodies, but also deliberately copies the perspective of Reeve that she has just killed and integrates it into her character. This actually adds an entirely new and unexpected layer of consciousness, terminating the possibility of idealism which can be read both as an enlightened vision and an implicit complicity: Up to this point, Reeve's rage has been solely directed against experimenters and the polity, whereas her questions regarding the post-Singularity world outside have only concerned her past selves. Now, her submissive reaction to Hanta as quoted above, that *things would not have been better otherwise*, has made her realize that the outside world is really no better. If that is why she has escaped to the polity in the first place, how could there be a better place to go to now? On the other hand, she is still a rebel, but thanks to this enlarged point of view, she now focuses on settling and making the polity a better place instead. She becomes pregnant, and when she is pregnant they overthrow the experimenters, Sam sacrifices himself by blowing up the connection of the polity with the outside world. After the revolution, the inhabitants of the polity choose to keep many things the same: They still do have the

scoring system (now just for the sake of it), they still live as orthohumans, looking and dressing like the 21st century people, and still retain their nuclear families. Everything else, however, comes full circle at the end of the novel: They reproduce A-gates for general use, which turns the setting back into their native post-Singularity habitat, Kay is restored from Sam's back-up, and Reeve becomes Robin again, concluding his/her narrative in high spirits:

After going through with the birth, I went back to being Robin, or as close to the original Robin as our medical 'ware could come up with. Natural childbirth is an experience all fathers should go through at least once in their lives (as adults, I mean), but I needed to be Robin again: the only version of me that doesn't come with innocent blood on his hands. (...) I've been writing this account down longhand on paper, to help fix these events in my memory, like the letter someone wrote to me so long ago that I can barely remember what it was like to be him. Even without memory surgery, we are fragile beings, lights in the darkness that leave a trail fading out behind us as we forget who we have been. I don't actually want to remember much about what I was, before the war. I'm comfortable here, and I expect to live here for a long time to come, longer than my entire troubled life to this point. If all I remember of the first half of my life is a thick pile of paper and Sam's conflicted love for me, that will be enough. But there's a difference between not remembering and deliberately forgetting. Hence the stack of paper. (250)

It is not clear if this is a true victory or a compromise, or even an illusion not unlike the myth of progressivism in our era. The hero/ine of the novel obviously considers it as a victory, but s/he is one of the most unreliable narrators we can imagine. It is possible to claim that the novel's ending is merely a shift, in Foucault's terms, from a disciplinary society to a society of control which is the defining paradigm of modernity, and that the absence of tangible experimenters does not necessarily mean the end of the experiment. In fact, if this shift is analogous to the contemporary world, then the experiment becomes all the more realistic, regardless of whether the experimenters expected this outcome from the very beginning. That said, we cannot ignore the relieved tone, the modest intent to synthesize the best of two worlds instead of viewing them as antithetical or hierarchical opposites (which deconstructs the concept of the Singularity itself in a Baroque manner that brings two impossible worlds together, because the post-Singularity world by definition is incompatible with our own). The revised tolerance for biologically sexed bodies is also evident, for Reeve does not become Robin because she does not like the female body or because she still considers it as a disadvantage in a world defined by gender,

but simply because Robin is the most innocent self she recalls ever having and can still access to – gender fluidity is also brought back, for we learn that Andromeda, the daughter of Reeve/Robin and Sam/Kay considers to change her sex when she grows up. Last but not least, the growing awareness regarding the importance of remembering past mistakes is a remarkable sign that this new society is determined not to repeat them. Robin gives up on searching his former selves, but does his best to put his narrative down on paper for his future selves to come, and this is exactly what concerns us in this study: Not how optimistic or pessimistic Stross' world in this text looks, but the Baroque nature of his hero/ine. There is really nobody for Robin to find, since Robin in fact has no origin and does not intrinsically exist the same way we perceive the existence of an individual. The *I* of the narrative is an empty signifier, and as such contains excessive signification as an anomaly, which makes it a singularity of its own as a device of multiplicity. We do not know what happened to the first Robin that initiates the narrative, we do not know if he was the only or first one to begin with, we do not know if Robin's past selves are still alive, or if Robin still has other selves in other parts of the galaxy: It is a plural *I* that can be reclaimed by other people at any given moment – and these people are all simulacra without a model, one of Deleuze's key terms to define of the 20th century Baroque fiction.

Finally, I should note that none of the motifs in **Glasshouse** are original per se; every single of them frequently recurs in science fiction. However, as a maximalist subgenre, post-Singularity fiction exhausts all of the possibilities they offer to the point of paradigm shift, and in this case Stross crams them into his imploded narrator, imbuing his anticlimactic view of history with the concept of Singularity which can be conceived as a literary-aesthetic device to examine ethical issues here and now. If the narrating *I* of **Glasshouse** is a field of multiplicity, Stross sows it in **Accelerando**, which is itself a fertile text and, as one of the founding works of the genre, offers us descriptive landscapes across multiple generations. The hero-ine(s) of **Glasshouse**, on the other hand, is subjected to one of its possible consequences in a plot and conflict driven scenario. As such, Robin/Reeve is an amalgam of all posthuman models of subjectivity found in **Accelerando**: Amber's

multiplicity, Sirhan's palimpsestic identity, Manni's timelessness and questionable origin, even Manfred's later transformation into non-human forms and his compulsive quality to take action. However, as an amalgam of all and a first person narrator, s/he is quite original and different from these partial models that constitute her/him. That is because Stross' post-Singularity characters have no essence to begin with: They are always amalgams, in the same way that Donna Haraway proposes the concept of the cyborg as an amalgam of animal and machine, digital and corporeal which makes “Man and Woman so problematic, subverting the structure of desire, the force imagined to generate language and gender, and so subverting the structure and modes of reproduction of 'Western' identity, of nature and culture, of mirror and eye, slave and master, body and mind” (1991: 163). Haraway's theory of cyborg offers more of a materialistic and non-anthropocentric way to interpret and experience humanity than the next step in human evolution, so it is with Stross' post-Singularity characters: Their historically contingent position only reflects our own contingency and lack of essence.

3.2. Hard Take-off Singularity and its Aftermath: *Singularity Sky*

I now return to historical contingency from the perspective of civilizations as a whole, rather than personal singularities or backward singularities inflicted upon subject groups which serve as an analogy to our own condition. Stross' 2003 **Singularity Sky** envisions an alternative future in which the relics of our own civilization are scattered across galaxies, thousands of light years distant from one another. Out of all the novels analysed in this study, it is the most monotonous one: The narrative is driven by heavy technological jargon, bureaucratic language and pseudo-dialogues between humans, transhumans and posthumans that do not really share a common semiotic order or a level of sapience, resulting in a cognitive dissonance which runs counter to liberal/extropian projections of the Singularity.

The background of the story sets up a technological Singularity scenario for the Earth as would be expected from Stross' fiction. Unlike **Accelerando** or **Glasshouse**, however, this is not the result of a slow process: Instead, it follows Vinge's assumption of the Singularity which, as I demonstrated, remains beyond the

realm of fiction since it implies absolute transcendence in physical and abstract senses alike. Therefore, rather than depicting the events leading to the Singularity, or constructing a gigantic posthuman formation at the centre of the Solar system as was the case in **Accelerando**, Stross utilizes the hard take-off scenario, according to which the AI explosion as the marker of the technological Singularity occurs all of a sudden, infinitely faster than human perception, resulting in a transcendent AI civilization that he calls *the Eschaton*. Undetectable, incomprehensible and godlike, the Eschaton never directly appears in the novel; what we are told about them is that as soon as they came into being, 90 percent of the population in the world disappeared because the first (and the only) thing they did was to scatter people across the universe, allowing like-minded people to experience their own utopias on their new segregated planets. Apart from this, however, the Eschaton is pretty much indifferent to humans and transhumans in the emerging post-Singularity landscape, which makes this scenario quite a deflated and disappointing take of the Singularity for the extropian thought, for it does not offer a solution to the inevitable demise of the universe (i.e., entropy), neither does it lead to humankind's transcendence of any sort. In fact, despite the implication of their name, they serve to *undermine* the concept of finality, teleological or otherwise, which informs both the mainstream discourse of the Singularity and apocalyptic fiction along with their fantasies of transcendence and the end-of-history anxieties. Rather than a revelation that their emergence would indicate, we encounter the dispersal of the turd of Vinge's Singularity to recall Stross' metaphor, and in this case, his characters are dispersed with it in ways which only complicate the concept of Singularity.

This complication begins with the ambiguities and paradoxes brought forth by the nature of the Eschaton itself: First of all, they only play a critical role in the background of the story, but they are repeatedly deferred at the present of the storyline as *an entity of the future*. Secondly, they function as the awe-inspiring God of the story that watches over people and communicates them through high-tech prophets when needed, but they are the unintended product of humankind. Furthermore, Stross bases the Eschaton's essence on a concept in mathematical

physics, namely *closed timelike curve*, which shows the possibility of events without a detectable cause: Strictly speaking, it is the result of calculations of extreme spacetime metrics where the movement of an object (e.g., due to high gravitational forces) becomes not only in space but also in time, and the object can be observed in its own past, and even at a location set *earlier* than its own starting point, allowing it to theoretically exist in multiple spots and, in cases of time travel, *before* its own chain of causality (Hawking, 2013). The Eschaton is thus able to communicate with people *from the future* (or to its own past), and this threshold is what really defines Stross' use of the Singularity in this text. In other words, they are not limited by space and time, and as such they are able to change the course of history, but at the same time they are aware of their historical contingency and the fact that they are only one of the infinite number of possible outcomes, which is why the only thing they prohibit in this interstellar order is the violation of causality which could endanger their own existence, even though their own existence violates the causality principle. Therefore, they inscribe the following message into every habitable corner of the universe as common knowledge regardless of the developmental stage of issuing civilizations:

*I am the Eschaton. I am not your god.
I am descended from you, and I exist in your future.
Thou shalt not violate causality within my historical cone. Or else. (98)*

The most complicated issue of all in this initial set-up is Eschaton's curious dispersion of people across space. If we recall the crisis in science fiction in the 1980s which led to the post-Singularity subgenre in the 21st century, it becomes clear that Stross still has the same concerns in **Singularity Sky** regarding the mainstream distortion of relativism and post-modern ethics, the turning of radical perspectives of earlier decades into personal opinions or generic identities that could coexist as elements of consumerism: In his attempt to re-politicize and reclaim the concept of perspective through his art, then, Stross has his godlike Eschaton make a rather disturbing suggestion, that maybe certain ideas and groups of people cannot or better not coexist; however, according to the neo-Baroque paradigm out of which post-Singularity fiction emerged, as we saw, they *must* coexist, not as tame and

homogenized clichés within the mass-produced social network, but as true *impossibles* which retain their radical difference and their capacity of interaction, hybridity and change. However, since post-Singularity subgenre operates beyond the utopia/dystopia dialectic, Eschaton's project itself is incompatible with the aesthetic order in which they are situated. Furthermore, this manoeuvre does not work for systems which are self-destructive, or necessarily rely on usurpation, expansion, and appropriation of other systems; as such, Stross is aware of the paradox of tolerance, and his text puts these systems to test in order for them to meet their own end. Another thing to note that societies are less monolithic or arboreal than rhizomatic, rather hard to define and catalogue, and perspectives themselves need other ones to exist, further complicating the idea of isolation, especially considering the nature of post-Singularity fiction which deems information impossible to constrain. In other words, even in a scenario where incompatible societies live in isolation, Stross *has to* make them absolutely aware of one another, avoiding at all costs the possibility of permanent ignorance which generates hate and the illusion of difference, because information *wants* to be free and any society that lives in such a mutilated state is simply eliminated from history. Therefore, the post-Singularity landscape which the Eschaton initiates is quite unsustainable, and this unsustainability is what drives the text.

To complicate things further, Stross develops this theme once again with the notion of the backward-Singularity: the first Singularity marked by the emergence of the Eschaton almost happens for its own sake, without utilitarian results for humankind or any implication for progress. By now, it is perhaps evident to the reader that this is not an entirely new take on the Singularity per se: Not only in **Glasshouse**, but even in **Accelerando**, Stross builds his narrative not around technology being the ultimate Messiah or the evil enemy of humanity, but on the possibility of its absolute alienation, or its becoming impossible. The difference in **Singularity Sky**, on the other hand, is that human progress does not even occur as the by-product of the Singularity. People are simply dispersed, economy on Earth collapses, nation states are replaced by anarchy consisting of fifteen thousand

polities, and the small amount of population remaining on the planet works their back to transhumanism and space travel without the aid of the Eschaton in the following century:

It took the stunned survivors twenty years to claw back from the edge of disaster, with nine-tenths of the work force gone and intricate economic ecosystems collapsing like defoliated jungles. It took them another fifty years to reindustrialize the inner solar system. Ten more years and the first attempts were made to apply the now-old tunnelling breakthrough to interstellar travel. (99)

In short, the background of **Singularity Sky** offers us a Baroque picture: The Singularity brings about an exuberant dispersion of humanity now thousands of light years apart and isolated from one another with their own line of evolution, and the world of machines proves to have its own autonomy as anticipated by the non-hylomorphic model of the Baroque philosophy. The Eschaton is the God of the story in the Baroque sense which corresponds to both Leibniz's theism and Spinoza's necessitarianism insofar as we realize that they are significant not in their actions but in what they prohibit, namely the possibility of infinite worldlines. On the other hand, their very existence makes everything virtually possible and permitted, not only by means of evidence but also their apparent indifference. They do not even care if humanity reaches their level of potency as long as they do not violate causality, and even then, this rule only applies in *their historical cone*, or the reality in which characters find themselves. There could be other historical cones, worldlines or realities where it does not apply, if a civilization somehow exceeds the Eschaton to find them. In this multiversal sense, the Eschaton's universal status is limited and makes them a neo-Baroque godlike entity that only exists in *this* world and could not really choose the best of possible worlds even if it existed, neither are they exempt from the inevitable demise of the universe – they only function as the check valve of the sense of realism in the story which already reads like science fantasy. Moreover, unlike the extropian projections of the post-Singularity utopia, the Eschaton is too much of an alien entity and their interests (or the best worlds) would dramatically differ from those of humans. Therefore, Stross organizes the second technological rise on Earth with a revised human-machine relationship: *The survivors* do reclaim transhumanist technologies and excel in quantum physics to

achieve faster-than-light travel, but this time they do so without the spectre of Singularity or spiritual fantasies of technocratic transcendence. They retain their anarchistic freedom, but they do not evade getting organized for ethical action: The Internet Engineering Task Force becomes the new United Nations, and operates as a highly recognized supervising organization in interplanetary conflicts.

Such revised relationship with the emphasis on ethical action marks one of the most important characteristics of the novel, because Stross clearly associates ethics with materiality and sets virtual (as well as enhanced) realities aside in this text. This is particularly important in a hard take-off Singularity scenario, where actual and virtual realities may not intertwine and simultaneously evolve as is the case in the gradual take-off scenario of **Accelerando**. As for the latter, it is possible to read virtual realities, disembodied planes and cyberspaces, following Jameson, in terms of Leibniz's model of monadology insofar as it actually enriches the world of objects and allows for an enhanced expression of the possibilities offered by the world of objects, both in the field of ethics and arts for the production of perspectives beyond the subject-object dichotomy. In the former case, by contrast, it marks an epistemological break from the world of objects, which would amount to the death of the Baroque. Simply put, Stross does not imply that a shift to virtual consciousness or disembodied reality is unrealistic or inapplicable; instead, he demonstrates that the shift in material conditions also brings about a shift in ethics, and the transmigration into disembodied platforms is likely to cause ecological disasters due to lack of ethical action. This is obviously related to the utilitarian culture that lies at the root of the current ecological crisis: A post-Singularity civilization inconceivably more complex and larger in magnitude would require greater amounts of energy, which would inevitably accelerate the rate of destruction. On a second level, however, it does not even stem from malice of some sort in the nature of the extropian thought, because such disasters would be only felt in the material world left behind until it is too late. In other words, such a shift requires a collective escape from materiality for a rather uniform illusion in the midst of artificial enrichment, which only results in further ignorance and susceptibility to disasters as was the case in **Glasshouse** in the

context of gender. This explains the Eschaton's ethical indifference and the problems which follow in the material world still subject to physical laws after their emergence. One of the major characters in **Singularity Sky**, UN agent Rachel Mansour describes this dilemma and the dangers of growing distant from material reality:

She'd dealt with uploads before. The first-generation ones, fresh from the meat puppet universe, weren't a problem: it was the kids that got her. Born—if you could call it that—in a virtual environment, they rapidly diverged from any norm of humanity that she could see. More seriously, their grasp of the real world was poor. Which was fine as long as they didn't have to deal with it, but when they did, they used advanced nanosystems for limbs and they sometimes accidentally *broke* things—planets, for instance.

It wasn't intentional malice; they'd simply matured in an environment where information didn't go away unless someone wanted it to, where death and destruction were reversible, where magic wands worked and hallucinations were dangerous. The real universe played by different rules, rules that their horrified ancestors had fled as soon as the process of migrating minds into distributed computing networks had been developed. (135)

In order to properly introduce the issuing dimensions of the Singularity and its effects in the main plot of **Singularity Sky**, it is necessary to note that the cautious background outlined above does not fall back into the aesthetics of apocalyptic literature which has its roots in the 19th century anxieties with respect to nature. Here I refer to apocalypse as a *secular* metaphor of the evident death of the universe as anticipated by the laws of thermodynamics established in the mid 19th century, and the simultaneous narratives of imminent dissolution and decay in the face of technological progress and the rising optimism of scientific discourse which characterizes the Victorian era. It is possible to trace this trend all the way back to Lord Byron's poetry and Mary Shelley's prose, and while in poetry the theme is evidently recurrent up until modernism, in prose it finds its most fruitful niche in science fiction: Since the outset of the genre, apocalyptic sensibility has continued to inform and shape the prominent texts of science fiction, most notably starting from H. G. Well's 1894 **The Time Machine** which utilizes Lord Kelvin's entropic model in its depiction of the dying solar system following the collapse of humanity. From the late modernist era to the 1980s, apocalyptic fiction dominates the genre with a shift in focus: No more the existential anguish of the previous decades and the impending death of the universe, apocalypse starts to reflect the anxieties generated

by technological and economical systems largely due to the Great Depression, world wars, the advent of nuclear weapons and the Cold War. Rather than depicting a slow, silent and unremarkable end of history, the 20th century science fiction generates sublime – and not uncommonly perverse – images of the apocalypse, be it in the form of alien invasion or Ballard's catastrophe aesthetics mentioned in previous chapters.

The establishment of cybernetics as a discipline in the mid 20th century is an early attempt to find a remedy to this revived sense of the apocalypse as a product of the civilization, by way of self-regulating and decentralized systems of communication expected to survive physical catastrophes *and* postpone the entropic processes of information. This marks yet another shift in the evolution of the apocalyptic discourse: On one hand, the disciplines hitherto in the service of military operations which have generated the sense of apocalypse in the first place are brought together for peaceful ends, which is itself an important step for later neo-futuristic thoughts of the post-Cold War era. On the other hand, it broadens the scope of apocalypse by demonstrating the significance of entropy not just of matter but informational processes as well. In other words, nature and culture, matter and information, the physical world and abstract constructs become a common ground for the apocalyptic imagination in parallel with the rise of postmodernist themes of semiotic randomness and the impossibility of unitary meaning, and the growing in multidisciplinary approaches to understand the links of economic, political, technological and institutional problems and practices with the revised postwar perspective. The *non-fictional* discourse of the Singularity in the late 20th and early 21st centuries is the direct and unintended offspring of this cybernetic shift to the extent that it attempts to apply the cybernetic principles (originally a humble project to put off the entropic processes of information and the demise of the civilization by means of machines) to change the meaning and the course of life towards transcendent forms supposedly beyond natural decay and entropy. Both utopian and dystopian projections of the Singularity in the discourse, that is to say, are still in the domain of apocalyptic projections even in its postmodernist formulations where the

anticipated end is absolute unpredictability and chaos. Ironically, the optimist and liberal take on the Singularity falls back to the 19th century interpretations of the universe which started the contemporary apocalyptic discourse in the first place, while the more cautious projections demonstrate the apocalyptic dangers embedded in the Singularity itself, recalling the anxieties generated by the nuclear danger in the 20th century (Bostrom, 2014).

Post-Singularity fiction marks a break from this apocalyptic discourse and the conventional non-fictional Singularity formulations simply because these models do not offer fruitful tools for fiction, and more often than not, they are ideologically at odds with what post-Singularity writers attempt to accomplish. Indeed, science fiction by definition draws a convincing, cohesive and significant continuity between the present and the future, and even in its most pessimistic narratives it sets up a dialectic of conditions by means of implication, always striving to ask what might come next: As such, it has always had trouble with closure. In particular, post-Singularity fiction is a great example of anti-eschatological openings in its use of the Singularity as a fruitful point of catharsis through which the writers intervene in the Singularity discourse in order to dissect the present under its scope and bring about the Singularity here and now. It is not dissociable from economic motives, namely a revision of Bataille's general economy in the light of peer-to-peer file sharing networks of the early 21st century as discussed in earlier chapters. To reiterate this paradigm in the context of the anti-eschatological take of the Singularity, cathartic events of history are merely logical consequences of accumulated excess energy which should be released instead, and put to free circulation without utilitarian purposes. In cases of accumulation of which capitalism is the most relevant example, the issuing catharses are destructive, but they only lead to new beginnings rather than the end of history, as the flow of existence is perpetual as it is beyond good and evil, and the apocalyptic picture (full of chaos or sheer absence or intelligibility) only exist on one side of the threshold, which remains bound and conditioned to the restricted rules which led to the catastrophe in the first place.

Stross' Eschaton in **Singularity Sky** is such a threshold or catharsis, the germ

that sets the conditions of his narrative. It is the direct result of accumulation of technological progress in one direction, that is, towards digitalization and AI development. It differs from the gigantic AI explosion in the inner solar system in **Accelerando**, where Stross depicts a simultaneous process of human evolution and the distribution of technological growth is not so asymmetrical, which results in a slow take-off Singularity without any occasion of transcendence beyond the physical world. The hard take-off scenario in **Singularity Sky**, by contrast, is driven by asymmetries, contacts of incommunicable systems, misunderstandings, sudden discharges of energy and changes in social and economic networks. Once again, this shows Stross' concerns with the Singularity discourse, not with its likelihood or the dangers that technological progress necessarily entails per se, but its apparent disregard for socio-economic outcomes and naïve complicity with conservative ideologies that underlie its progressive appearance. In fact, in **Singularity Sky**, he clearly demonstrates the conservative nature of all theoretical commitments, ideologies, established ontological grounds and epistemological descriptions, as well as their inefficiency and our need to question and revise them in the presence of the literary yet unthinkable spectre of the Singularity. That is why he imagines as his setting a hyperbolic, absurd colony where he can parody both leftist and rightist political programs in their most crude, formulaic and caricatured forms one could conceive, almost restaging the pre-industrial, moralist and repressive history of Europe.

The plot begins on such planet named Rochard's World, the colony of the repressive the New Republic, forty light-years away from the state's control centre and capital city New Prague. The multi-planetary state is populated by descendants of Eastern Europeans whom the totalitarian authorities keep under strict control by means of harsh restrictions against technological progress and access to information other than primitive machinery, the Bible and outdated state publications, apparently for their own safety and happiness. It should be noted that it is not an authentic restaging of history as might be the case in steampunk; it is a post-Singularity landscape roughly two centuries following the Eschaton's emergence, well after

humans re-established contact and started interplanetary trade. As such, the authorities of the New Republic do have access to high technology and space travel, which they use strictly for military applications and expansion, while they artificially keep their inhabitants under feudal conditions. Rochard's World is the most backward, poverty-stricken planet of all, kept in ignorance and used for a distance place of forced exile. One of the exiles is Burya Rubenstein, a Marxist extropian who believes in the necessity of a technological Singularity to overcome class oppression and achieve a morally superior society, and soon becomes the leader of an underground opposition group established under these principles. This might be considered as an unorthodox take on Marxism, but as discussed earlier, traditional Marxism itself had accelerationist views from its outset, and Rubenstein actually comes across as a true dialectic materialist in the pre-Soviet sense in his strong adherence to the idea of communism as the logical consequence of progressivism, the inevitable stage after capitalism and the true nature of a rationalist, free and post-scarcity society without any means of oppression which resurface even in the hands of the revolutionaries despite their initial peaceful intentions. This could be read as an anticipation of rapid modernization and governmental change in parallel with the 1917 October Revolution.

Such a typical tension and asymmetry between the oppressor and the oppressed, however, is not sufficient for a text informed by the hard take-off Singularity: There needs to be a third element, an asymmetry on a baroque scale for a clash of two impossible worlds and a full-blown change that would change the course of the novel towards high-tech magical realism and science fantasy. In fact, Stross never intended to write a novel about the battle between these two classes for both political and literary reasons: For one thing, he does not believe in old forms of conflict to bring about a cultural and economic revolution sophisticated enough to keep up with the needs and complexity of the 21st century – hence the absolute lack of conflict in **Accelerando**; he is more inclined towards hacker tactics, of which his act of writing is an example. On another level, **Singularity Sky** is Stross' first attempt to break free from previous sub-genres of science fiction in a full length

novel (**Accelerando** started as a series of short stories), and from the very beginning Stross conceived an entirely different target for the state of the New Republic in order to challenge the space opera sub-genre for its apparent lack of realism and implicit glorification of dictatorial societies, and invent the required asymmetry for the new aesthetic and politically conscious narrative mode he had in mind:

I'd been reading too much David Weber at the time, and noting the uncritical enthusiasm with which readers seemed to receive his tales of Napoleonic Navies in Spaaaaace. Alas, I'm prone to tearing apart my toys, and after a couple or eight books in the series I began to ask questions. Such as, why are the opponents in this sub-genre of space opera always evenly matched? Surely in a diverse space operatic universe you'll occasionally see a Napoleonic space navy run into a nuclear-powered hunter-killer submarine? Or the equivalent of wooden tall ships encountering an unarmed modern ice-breaker ... on whose decks some desperate amateur has parked a TOS-1 Buratino? (Wooden ships and thermobaric warheads just *don't* mix.) You can also note my nascent aversion to absolutist monarchism coming out here. We in the modern world have a technical term for absolutist monarchies of the kind who deploy Napoleonic Space Navies (or would, if NSN's existed): we call them hereditary military dictatorships. Poster child: Kim Jong-Un. Or maybe the House of Saud: I digress. Let's just say that the political systems in most military space opera *really suck*. (2013)

The initial motive, so to speak, is to use the authorities of the New Republic as a parody device, and to expose their own self-destructive deficiency without the need of a Marxist uprising. Once again, Stross derives his narrative from recent history, this time aggressive and paranoid naval excursions of tsarist Russia in the early 20th century which resulted in tragic outcomes for them both in terms of casualties and international relations, further afflicting the stability of internal affairs. One of them is the Dogger Bank incident in 1904, when the Baltic Fleet of the Russian navy fired on a British fishing trawler, mistaking it for a Japanese navy torpedo boat and then going on to fire on other Russian cruisers (Hullwebs, 2004). The other one is the Battle of Tsushima in 1905, which Stross calls “the most barkingly insane naval expedition of recent history” due to Admiral Rozhdestvensky's decision to take an irrationally long route with steel, heavy, coal-powered warships and an inexperienced crew to sail undetected by the Japanese Imperial army, resulting in one of the most decisive defeats in history (Stross, 2013). Instead of a battle of comparable forces from which the reader can expect a victory of either side, what we have in **Singularity Sky**, similarly, is an impossible war attempt by the New Republic, against a threat which is not really a threat as they define it, against an

entirely alien civilization whose *victory* (which is clear to the reader from the start) is not even a victory in the conventional sense because they are not even familiar with the concept of war. Furthermore, this civilization is to be equally alien to Rubenstein, capable of bringing about the technological Singularity of his dream, but with totally different motives and unexpected results that equally expose the danger of self-assured and firm ideologies, no matter how logical they sound on paper and how well-intended they might be.

This third element is Stross' one of the best baroque inventions in this study, and certainly the most complex and imaginative production of the pure alien-Other in an artistic-literary sense which he comes close to actually represent in the text instead of circumventing the unthinkable. It is a heterogeneous upload civilization called *the Festival*, at least partially descended from human and posthuman uploaded minds but grown unrecognisably distant and alien to material reality after centuries of disembodied existence. In other words, their composition and relations with the embodied world do not have a slight resemblance to any anthropic principle, neither are they conceivable to the human mind. As such, Stross still cannot represent them directly as a whole, and the Festival remains an elusive entity who communicates with people on Rochard's World by dropping cellphones from the sky and uttering the same statement to responders: "Entertain us and we will give you anything you want" (2).

The first difficulty which the Festival arises both for the characters and the reader is how to define their structure as an entity, or what makes them an entity in the first place: On one hand, they are not representable as a whole in their pure form simply because they are impossible with the material reality of Rochard's World and Stross does not pretend to have the linguistic or conceptual means to represent them. On the other hand, they are capable of embodiment, of building actual bodies and downloading themselves in them, but the embodied individuals are no more considered as the same thing as the Festival; rather, at the moment of instantiation, they become physical expressions of *separate* species accompanying the Festival, or even parasites within it. That is to say, there is an indication of a collective mind

along with infinite heterogeneity, at the same time a perplexing concept of an entity which consists of components that do not belong to it, yet come together to form that entity while remaining external to it. The parts and the whole in this formation are *qualitatively* separate: The former is representable, corporeal, and exhibit uniquely different behaviours, while the latter (the Festival as abstraction) itself is paradoxically indivisible, inherently *greater* than what it contains, and do not simply diminish or change in quality by losing its components. It is, to borrow Deleuze's famous term, literally *a body without organs*. It is by far the most cited (and admittedly overused) term by Deleuze, which has conveniently become a metaphysical synonym for the virtuality of matter prior to its appropriation in the social order – or, within the terms of this study, a baroque ontological plane which opens up a vast space for artistic composition. Such convenient interpretation of the term in itself does not contradict the overall theoretic perspective of this study. However, it is an incomplete take on the term and as such it is insufficient to elaborate the Festival as a body of organs, since Deleuzian readings of literature (even Deleuzian scholarship itself) are overcautious against dialectic formulations and always overlook the dualist nature of the term, which is perhaps – ironically – the least known aspect of Deleuze's philosophy.

In his original appropriation of the term from Antonin Artaud in **The Logic of Sense**, body without organs is the unrefined and non-organizational locus of conflation between two asymmetric planes, namely corporeal/bodily encounters and incorporeal/abstract events, which on the level of social order both cause and affect each other continuously as though so-called *two sides* of a Möbius strip – such is Deleuze's post-structuralist rendering of Lacan's metaphor (1990: 11). In other words, we can define body without organs as the end limit of language where it stops functioning in the symbolic order and regresses to primordial processes of matter, where we could only speak of embodied encounters without apparent organization: At the same time as the body is stripped off its conditioned social constraints and becomes an unpredictable pure machine, language loses its association with sense and takes on a non-anthropocentric quality on the same plane as the production of

sounds without a necessary implication of higher faculties. In this respect, rather than a fixed entity, it is a continuous process in two directions: Total alienation on one hand, renewed participation in social interactions on the other. It is the latter part which is taken for granted in most academic studies to date: As much as an ontological reservoir of the potentials of matter, body without organs is also a product, much like a self-replicating and self-regulating machine that sets up an unrestricted relation with the world which in turn becomes a body without organs, to the extent that the distinction between *the Other* and *I* disappears and the subject dissolves into the machinic process of individuation. Even though the term resists conceptualization and simplification, it is possible to do so by presenting the skin as an example of the interface which complicates the relation between the inside and the outside, since it cannot be separated from the contents it protects and the world it keeps out, while the skin itself belongs to neither and both, like a Möbius strip: Furthermore, it is constantly subjected to sex, class, race and incorporeal constructs that do not physically exist but continue to affect the physical and social status of the skin. Body without organs would be the consequence of this model, the rejection of the skin as an organizational organ on which the subject is constructed, turning it inside out, rendering it unrecognisable, stretching it across the social domain, opening it to unrestricted forces of desire, letting it speak for itself without the need of an organized body, a proper subject or even a language. It is rather a grotesque image clearly rooted in art, particularly Artaud's Theatre of Cruelty, and contrary to the popular misconception, Deleuze does not merely offer it as a remedy to normative morality, institutionalization, repression and hegemonic discourses: While it is true that body without organs is the revolutionary locus of affects, percepts, concepts and functions in artistic, philosophical and scientific productions, the outcomes of body without organs are unpredictable: It can get unproductive and escapist, or worse, it can grow destructive, self-destructive and cancerous, leading to fascism. There is nothing teleological in Deleuze's philosophy, it focuses on processes (à la Whitehead) instead of end products.

Likewise, the Festival in **Singularity Sky** is closely associated with art rather

than rationality and intent, despite being a nanotechnology and informatics based civilization and their god-tier command of science which causes technological Singularity on primitive Rochard's World. In fact, Stross' inspiration for the Festival was Edinburgh Festival Fringe, the world's largest art festival which hosts thousands of artists every year in August. The Fringe's heterogeneity and lack of a central theme, its power to completely alter the outlook of the city thanks to its random, unrestrained and inclusive content as an open access festival were what inspired Stross to imagine the Festival as an entity far beyond the scope of the uptight monarchist regime of the New Republic:

It was August 1997 and I was wandering around Leith with friends, looking for a pub, and as I frequently do, I was chewing over my dilemma in the presence of an audience. And as I recall [...] I was muttering aloud along the lines of, "what I need is a threat they don't understand, one that they *can't* understand." And a friend said, "something like the Edinburgh Festival Fringe?" The whole reason we were wandering around Leith in search of beer in the first place was that we'd been driven out of our normal pub by the presence of Festival-goers. Edinburgh in August is a city on the receiving end of an alien invasion spearheaded by unicycling mimes and bagpiping elephants. Add the fleeting twilight nights (we get maybe 4 hours of complete full dark at that time of year) and the pervasive random weirdness—you can go shopping dressed as a Dalek or a 17th century French aristocrat and nobody will blink at you—and it seemed like the perfect metaphor for what the New Republican Navy was going up against. (Stross, 2013)

It is due to this organizational complexity and corporeal aspect that I associate the Festival with the term *body without organs*, which would not be the case if they merely had a virtual and non-representable mode of existence like the AI civilization in **Accelerando** or the Eschaton in this text; the corporeal and actual dimension of the Festival, by contrast, makes them an infinitely complex and post-structuralist civilization par excellence. Basically, they are a self-replicating network of information that considers any hole or blockage in the universal information flow as a glitch to be fixed. Censorship, as evidenced by the absence of telecommunication signals on Rochard's Word, is one of such bugs, which is why they drop cellphones onto the planet in the first place. However, the introduction of cell phone service alone is not sufficient for repair, since information flow is not unidirectional and there has to be an exchange to fully connect Rochard's Word into the network. The Festival's form of exchange depends on the logic of art (and could be considered as another example of Bataille's general economy) which enriches both

participants as it results in an *increase* in exchanged goods as opposed to scarcity economy and the logic of capitalism. In other words, when they get in touch with an environment or a civilization, they absorb all the information they can get out of it while they share their own stock of information in that habitat until mutual connection is complete. It is in this sense that they are a self-replicating network: The content of their *self* is in a constant process of change after each contact. Therefore, when they ask Rochardians to entertain them in exchange for anything they want, they simply mean that people offer them any information (a story, a theory, a song, basically anything) and take a piece of information *from* the Festival, simply for its own sake with no utilitarian value. People only understand the first half of the equation, so they ask for their own material needs instead when it is their return, which has nothing to do with the Festival itself and does not help the repair process of connecting the planet with the information flow. It is only expected that people deprived of basic needs would ask for food and better living conditions, but that does not stop there: Rubenstein, the brightest intellectual on the planet, asks for tools to make his dream Marxist-extropian revolution come true, in exchange with the viability of his hypotheses (that do not convince the Festival) which can be proven only *after* the revolution. In the meantime, peasants learn the use of nanotechnology for cultivation, eternal youth and post-scarcity economy follow when people finally acquire cornucopia machines by means of which they can manufacture anything without asking from the Festival. Still, the discrepancy between two semiotic systems remains unsolved as people do not understand the form of exchange the Festival refers to, which is a baffling case for the Critics, a matriarchal subculture within the Festival that monitors and comments on visited civilizations. One of the Critics, called *Sister Stratagems the Seventh*, who has the grotesque appearance of a giant mole rat and uses a Baba Yaga's hut for travel, goes to the planet in order to directly face Rubenstein and rebuke him for such discrepancy:

Sister Seventh leaned forward. "None of your people *ask* anything," she hissed. "Food, yes. Guns, yes. Wisdom? No. Am beginning think you not aware of selves, ask nothing."

"What's to ask for?" Burya shrugged. "We know who we are and what we're doing. What should we want—alien philosophies?"

“Aliens want *your* philosophy,” Sister Seventh pointed out. “You give. You not take. This is insult to Festival. *Why?* Prime interrogative!”

“I’m not sure I understand. Are you complaining because we’re not making demands?” (107)

Just like the information exchange, misunderstanding is bidirectional. The Festival does not really speak human language, but mimics it. That is also the case with the Critics and Sister Seventh as seen above, even though the Critics themselves were supposedly evolved from humans (but are now unrecognisably alien). That is why they do not predict that a statement as *entertain us and we will give you anything you want*, especially when addressed to such a backward society, would be taken to mean that the Festival is a godlike entity or at least a superior sorcerer in search of amusement, while the fact is that they are not even sapient in traditional sense: Their accumulative body of information has allowed them to behave like a sapient civilization and even question the sapience of the species they encounter (including humans) but they operate on a stone-blind process with no intent, like an embodiment of information that wants to be free, irrespective of humans or anthropic principles.

Moreover, their material effect is not limited to information exchange or nanotechnological developments to which they expose the target civilization according to the wishes of the inhabitants. As I mentioned above, what makes them a unique entity is their extended instances of embodied manifestations, which supposedly do not belong to them but cannot be envisioned independently of them. Through the main protagonists who come closest to understand the Festival, the novel suggests that these embodiments are unintended side effects of the Festival which keep emerging when the so-called repair process takes longer than necessary as is the case with Rochard's World, but what they have in common with the disembodied Festival is their lack of intent and sheer alterity which brings about devastating results for humans due to their differentiated relation with the material world. The Fringe, for instance, considers the entire universe as a canvas, and celestial bodies as art media: Just as a sculptor manipulates matter in his/her studio, the Fringe uses planets as malleable matter to create art with, which is catastrophic

within the limited bounds of human perception, but for a much larger civilization in almost perfect control of space both in Newtonian and quantum scales, it does not distribute the galactic balance to deem inherently dangerous. Within the course of the novel, they introduce alien flora from other planets to Rochard's World, at the same time as they meddle with the magnetic field of the planet to cause magnetic reconnections to affect the course of particles released from its star, causing auroras and changing the entire landscape. Notwithstanding their dexterity, we learn, such artistic experiments still do pose dangers that could as well injure them, as is the case with the Mimes who emerged as a zombie species after such an accident. The Mimes, or the broken Fringe, are much like a cancerous body without organs that has found a way to propagate itself after the collapse of language (by turning others into zombies who in turn do the same ad infinitum); however, once again, we find that it is a neutral process rather than malice:

The Mimes were broken, a part of the Fringe that had swung too close to a solar flare and succumbed to bit rot several Festival visits ago. They'd lost their speech pathways, right down to the Nucleus of Chomsky, but somehow managed to piggyback a ride on the Festival starwisps. Maybe this forcible assimilation was their way of communicating, of sharing mindspace with other beings. If so, it was misguided at best, like a toddler's attempt to communicate with a dog by hitting it; but nothing seemed to deter them from trying. (148)

To the best of our knowledge, all of these grotesque incarnations delivered on Rochard's World themselves could be the Festival's desperate attempt to communicate and do their share of the exchange, as it becomes evident that the Rochardians are unable to relate to them on an abstract level, or absorb the information they are supposed to receive from the Festival for the consummation of a reciprocal connection. It is not clear if the represented embodiments in the novel are authentic species, or simply models, amalgams or by-products of the Festival's imagination based on the data they accumulate as they travel from one planet to another, or, arguably, in an effort to find a common ground, the Festival's spontaneous creations on the spot as a reflection of the spectacle that people make of themselves once they gain access to high technology and post-scarcity economy. Indeed, the most grotesque changes occur as a direct result of the overnight shift from pre-industrial conditions to a post-Singularity freak show rather than the

embodied extensions of the Festival, and that is because of the fulfilment of the Rochardians' (including Rubenstein's) naïve wishes which have nothing to do with some malignant essence on the Festival's part – in fact, as mentioned above, the Festival does not even consider technological progress worthy of exchange, or as what the Rochardians are supposed to receive from them for a true reciprocal exchange to take place.

If anything, this whole rupture highlights Stross' political-economic precaution embedded in the non-teleological form of his post-Singularity narratives, in that repressive regimes are not the only hindrance to a utopian culture, which is why he does not establish the ground of his literature on a dialectic between the status quo and the forces of resistance. In this sense alone, he shares Rubenstein's historical view that a backward order of governance cannot exist if the working class has access to superior technology: On Rochard's World, local authorities are quickly overthrown once peasants acquire cornucopia machines, theoretical molecular assemblers which can nano-manufacture basically everything with minimal cost. Duke Felix Politkovsky, the governor of Rochard's World, quickly realizing the end of his authority, asks the Festival to make him a young boy with three anthropocentric loyal animals that will accompany him in his adventures – and later he decides to leave the planet for good as an upload and join the Festival. However, there are serious problems in Rubenstein's teleological view of history which designates the technological Singularity as a quick tool for permanent revolution. First of all, it makes a critical error by overlooking the fact that the hard take-off Singularity reverses the historical equilibrium between biological and cultural evolution of humans: Under regular conditions, the former is much slower and persistent compared to the latter, but the abrupt transition to transhumanism as depicted in **Singularity Sky** literally alters the human body more than thousands of natural evolution could. Furthermore, Stross inflicts it on bodies conditioned by primitive conditions of production and an oppressive regime in order to dramatize the discrepancy, which causes culturally shocked people (now equipped with neural enhancements and cognitively overloaded with information they cannot make use of)

to behave irrationally. The planet soon swarms with badly designed geodesic domes, buildings several kilometres high, meaningless machinery, nano-technological weapons and robots accompanied with brutal violence, social chaos, and paradoxically a stronger support for the repressive regime of the New Republic, while some people prematurely shed their bodies and upload themselves into the network of the Festival. Here we encounter another flaw in the ideology of Rubenstein's revolutionary junta, and it plainly reflects a common problem in current ideas about radical change arising from the inability to incite the change here and now, which is the anticipation of revolution as an eschatological threshold and its constant deferral. This, coupled with the belief in the necessity of a vanguard party inspired by the Bolsheviks, soon makes Rubenstein the new leader of the status quo, reluctantly signing piles of execution orders of the counter-revolutionists while defining their political program as *democratic extropianism*. Sister Seventh actually confronts him about it, reminding that the branch of Marxism he initially proposed is “anarchist aesthetic” and implying that maybe he should catalyse the change around him instead of attempting to repress it and let the cultural turmoil stabilize itself in its own historical course, but Rubenstein is convinced that “most of our people aren’t ready for that, [...] When we achieve the post-technological Utopia, it will be as you say. But for now, we need a vanguard party to lead the people to a full understanding of the principles of ideological correctness and posteconomic optimization” (107).

Such is Stross' harsh criticism of traditional Marxism founded on Rubenstein's rather stereotypical character; however, it is directed to organizational models, power structures, and their structural affiliations with both bourgeois and conservative ideologies in the context of the Singularity discourse rather than the tenets of the political left as a whole. As discussed in the previous chapter, the leftist alternative aesthetics which informs Stross' post-Singularity novels are heavily influenced by the horizontal model of the World Wide Web and its early modes of reciprocal participation which curiously function more efficiently as the level of unpredictability increases as opposed to all assumptions about hierarchy and regulation which still construct our reality today. This is what Rubenstein eventually

comes to realize when it becomes evident that all forms of hierarchy are bound to disintegrate in the face of the Singularity, and that revolutionaries could never contemplate and control what the Singularity would bring – despite their initial self-assurance. As a matter of fact, Rubenstein is never depicted as a totalitarian figure with Stalinist tendencies: As a working class intellectual, he is not only cut off from his home planet forty light-years away, but also from his paternal rights and his son whom he has not seen for fourteen years, because of his middle-class ex-wife's decision to *disown* “him upon hearing of his sentence” (215). He is the first person to feel disillusioned in his revolutionary junta even as he maintains his faith in their theoretical stance, but he is unable to play the role of a callous leader for long. Like everyone else in his ranks, he also gets neural implants and connects his brain to the digitalized collective mind of his vanguard party, which enfeebles his significant position in the faction. On a personal level, furthermore, transhumanism for Rubenstein amounts to fulfilment of emasculation, which is actually an emancipatory process for him – in the end, after the Festival's departure, he renounces his old conventional strategies and becomes an independent publisher:

People suddenly gifted with infinite wealth and knowledge rapidly learned that they didn't need a government—and this was true as much for members of the underground as for the workers and peasants they strove to mobilize. Perhaps this was the message that the Critic had been trying to drum into him ever since his abduction from the offices of the revolutionary soviet—the revolution he had been striving for didn't need him. (216)

On the other side of the political spectrum, the repressive state of the New Republic has an entirely different relationship with the Festival. This relationship is a direct reflection of Stross' self-admitted “aversion to absolutist monarchism” and “hereditary military dictatorships,” which encompasses not only the actual political field but also ideological implications in many sub-genres of science fiction, including space opera, science fantasy, tales of the cosmic battle between Good and Evil, and even popular cyberpunk derivatives such as steampunk (2013). His views on the issue are closely parallel with Jameson, who associates these sub-genres with the medieval aesthetic and its aristocratic ideologies, and notes their specific capacity of implicit aestheticization of the norm due to cognitive dissonance and alienation peculiar to science fiction and fantasy (2005: 64).

To tackle this problem, Stross decides to satirize social structures founded on heroism, slogans, anthems, epic tales of strong-willed leaders, self-assured interpretations of the living present based on schizophrenic fancies, and nostalgia for a fabricated past detached from historical reality. In fact, he explicitly demonstrates that such structures are bound to become a parody of themselves in the rupture between reality and their fabricated self-image with which they replace it. The story of the New Republic, accordingly, is a quixotic attempt at a military expedition commanded by a so-called war hero called Admiral Kurtz, who cannot function mentally and physically: Demented, inarticulate, and unable to stand on his feet without support, the aged soldier thinks he is pregnant with an elephant and only shows comical signs of life and bursts of vigour when the subject of war is raised. He is obviously defunct as a commander, but what is just as ludicrous as the Admiral's physical condition is that the entire state of the New Republic believes that they can (and must) annihilate the Festival, which they misinterpret as an occupying force because their own world view is restricted to the logic of colonialism. In order to do so, they send a fleet from New Prague all the way to the orbit of Rochard's World where the Festival stays, with a plan Stross adapts from the Russian Baltic Fleet's infamous 29.000-kilometre expedition in 1905 which led to the Battle of Tsushima. What Admiral Rozhdestvensky attempted in sea (passing through three oceans), the New Republic army tries in space and time: They plan to approach the Festival with faster-than-time travel (using cumbersome warships equipped with an incompetent crew, once again recalling the Baltic fleet) in order to go backwards in time, and attack the Festival short after they arrived at Rochard's World, but before they actually left New Prague, that is to say, before *the enemy* expects them in real time – and also before the Festival introduced advanced technologies to the planet which they consider as a deliberate attack against their order. This is a clear violation of causality, but the evaluation of their own capacities is so corrupted by the idea of the empire's sanctity that they are justified in their actions, and their rigid bureaucratic-military bigotry leads to such an inflated self-indulgence that they believe the Eschaton will not and should not intervene as long as the New Republic does not

intend to attack them and can keep it a secret until the final stages of the expedition. In other words, not only are they absolutely ignorant of how the Eschaton (or the Festival) works, but they are also so deluded that it is still possible to maintain state secrets in the post-Singularity interstellar network of which they are a feeble part, but which they believe still works in their favour, for God is on their side. Unbeknownst to them, the Eschaton has already intervened and assigned an agent to sabotage their plan, and that is the protagonist of the novel, Martin Springfield, a transhuman engineer from Earth that the New Republic has hired to help them upgrade their drive systems for the expedition. Furthermore, another Terran is on board, namely Rachel Mansour, a diplomat of the UN Committee on Multilateral Interstellar Disarmament whom the New Republic army belittles (because she is a woman) but has to take her on board due to her political status, if only as a nuisance to be disposed of by manipulating international laws if needed. Another thing the New Republic officials fail to realize is the fact that she is not just another diplomat to observe their actions and file a report if they violate any rule: She is a 150-year-old transhuman/cyborg who looks like a woman in her twenties, by far the brightest character in the novel who has the upper hand both in legal procedures and technological prowess – she even has a cornucopia machine among her personal belongings and can use nanotechnology to manufacture anything she needs (and her secret mission is to give the machine to Rubenstein to help him overthrow the state once they arrive at Rochard's World, which is now useless since the planet already abound in cornucopia machines thanks to the Festival).

In short, from the outset it is clear to the reader that it is a lost battle the New Republic is after: Even Rachel and Martin alone could prove sufficient to defeat them, not to mention the incomparable technological superiority of the Festival – to put it better, their entirely altered relationship with the material world which makes them impossible to fight against. In fact, there is not even a battle of opposite sides that the novel sets out to depict; instead, there is an asymmetric multiplication of impossible worlds, the New Republic, the two terran anarchist cyborgs (who, unlike the Rochardians, were born into technological progress and have developed

through its uncompressed course, maturing physically and ethically), the Eschaton and their techno-angelic means of communication with different worlds, Marxist-Gilderists, the Festival as an upload civilization and its various material incarnations, the speciation of humans after the abrupt introduction of technological progress of a millennium squeezed into several weeks, which as a whole function like an atonal neo-Baroque composition playing around the theme of the Singularity, appearing to speak a common language while they belong to absolutely different semiotic regimes. The exclamation point of this is to launch a military attack on a civilization which can instantly dismantle the missiles molecule by molecule and use them as a raw material without taking any damage. That is exactly what happens to the New Republic Fleet, even though the crew is certain of the upcoming victory until final minutes: They are hit with grey goo, converted into energy for the consumption of self-replicating nanobots, while Rachel and Martin easily pass through the orbit of Rochard's World in the lifeboat which Rachel fabricates via her molecular assembler. The Festival clearly has no intent and is not able to develop a moral stance on things, but in a sense, they do pose a threat to the repressive regime of the New Republic because the two modes of existence are simply incompatible; however, the New Republic itself is incompatible with anything other than itself, and justifies its own existence as a self-proclaimed comfort object based on this proudly acknowledged incompatibility which generates fear against anything different, and the issuing need for perpetual surveillance and protection against internal and external threats, making the regime itself extremely hard to sustain in the first place. That is what Rachel tries to explain to Vassily Muller, Rubenstein's 19-year-old son who gets on board as a secret police of the New Republic to keep an eye on Martin, but ends up utterly ridiculing himself while trying to prove himself as a promising officer by providing evidence that Martin is an agent working against the New Republic. He is the youngest character (unless we count Duke Felix who becomes a child) and a victim of the system which puts so much emphasis on lineage, yet this makes him the most farcical element in the novel after Admiral Kurtz as his mental capacities are severely blunted by extreme indoctrination. As though a member of a different species (which

in a way he is), he is unable to understand Rachel's following remarks which summarize the essence of the novel:

The Festival isn't human, it isn't *remotely* human. You people are thinking in terms of people with people-type motivations; that's wrong, and it's been clear that it's wrong from the start. You can no more declare war on the Festival than you can declare a war against sleep. It's a self-replicating information network. [...] We've been trying for years to tell your leaders, in the nicest possible way: information wants to be free. But they wouldn't listen. For forty years we tried. Then along comes the Festival, which treats censorship as a malfunction and routes communications around it. The Festival won't take no for an answer because it doesn't have an opinion on anything; it just *is*. (219-20)

In the classic debate between freedom and security, which has shaped the discourse of utopia for centuries including modern science fiction, the text unconditionally chooses freedom. That is not unexpected in itself, because Baroque philosophies from the beginning all the way to the neo-Baroque revisions and aesthetic creations in this context have always been on the side of freedom, even more increasingly so since the second half of the 20th century: It is now evident that state institutions, which rely so much on the myth of security and appear to be a security blanket that guarantees to protect individuals, are themselves a major threat to individual security. In fact, they usually pose greater and more organized dangers than illegal threats to the society which are either direct results of state policies or a symptom of a social peril from which state institutions take their power, far from being its remedy. There is not much to add to this stance as it is common sense to most of Stross' readers as well as many contemporary intellectuals regardless of their particular political views, neither is it an original take on the issue per se. However, there is a twist to it: What Stross makes clear in the text (as well as his previous works in this study) is that freedom and economy cannot be discussed separately. That is to say, as long as global economy is founded on the myth of scarcity and the theory of limited sources as it has always been, our views on nature, human nature, human rights, private property, regulation, education, work, competition, utility, security and freedom are extremely distorted. That is why, according to him, even the most liberal theories of economy (and also libertarian leftism) are not and cannot be *liberal* enough, with the exception of a few which reject scarcity in the first place, such as Bataille's general economy or Baudrillard's concept of symbolic exchange.

One of the major objectives underlying Stross' post-Singularity novels is to rethink scarcity in the light of contemporary technological discourse, which is why, over and over again he demonstrates that the technological Singularity is also an economic Singularity, or a shift to post-scarcity economy, not because we actually need a technological Singularity of some sort or a special differentiation in our physical constitution to achieve a post-scarcity state, but in order to apply it as a lens through which the present might be glimpsed and imagined differently, freed from centuries-old assumptions, institutions, conditions, forms of organization and consumption directly founded on the logic of scarcity which continues to constitute us as subjects and determine our powers of imagination and creativity, realistic as well as idealistic expectations and political convictions. Indeed, it is so hard to see beyond scarcity that even if we lay bare the sufficiency of total wealth produced and the abundance of sources to speak of post-scarcity in current state of affairs, it is still possible to ascribe this to economic equilibrium which requires at least some of its participants to be in a state of (artificial) scarcity, demand and competition, putting us back to the vicious cycle of global economy.

In his post-Singularity narratives, Stross never implies that freedom revised by post-scarcity conditions is the ultimate recipe for a utopian society. In fact, it is not even certain that people will easily abandon their habits and world views conditioned by scarcity: Rubenstein, for instance, a character who has imagined a post-scarcity world for decades, while perfectly analysing peasants' culture shock and their inability to adapt to such a drastic change, ironically adheres to his party's slogan "From each according to his imagination, to each according to his needs!" in the middle of the Singularity (37). Absurdity of the situation here is obvious: They are able to reformulate Marx's original statement by changing the word *ability* to *imagination*, since production in a post-Singularity world is merely a matter of imagination and takes no effort or skill. However, they are unable to figure out what to do with superabundance and overproduction, and not realizing that the meaning of need has also changed under new circumstances, they retain the rest of Marx's principle, along with its organizational implications and historical principles which

inspire them, even though their conventional/centralized model of distribution (as well as their own existence) is not sustainable in a post-scarcity situation. Furthermore, Stross' baroque narrative logic does not move towards elimination but multiplication: There is no system which totally disappears, or is entirely supplanted by another system in a linear fashion, neither is there a perfect system without any randomness, glitches, malfunction, extraneous components and dissolution, which are not merely inevitable perils anyway but often important preconditions for the vitality and productivity of every system. At the end of **Singularity Sky**, Stross does not even exclude the supporters of the New Republic, who survive the technological Singularity and continue to thrive after the Festival leaves Rochard's World. Achievement of absolute freedom does not eliminate dangers and threats, but Stross' point is clear: There is no other option, and nothing is more dangerous than the assumption that it is even possible to restrict the free flow of existence. We do not have the freedom, that is to say, to rule over freedom. Stross does not pretend to have answers as to what comes next, and leaves Rochard's World in an unclear state – his main characters, Martin and Rachel, also leave the planet to return to Earth, and later resume their mediating missions in other interplanetary disputes in this Eschaton-verse in the next novel **Iron Rise**, which I will not get into in this study but is also driven by indeterminacy and complexity as opposed to a final end, transcendence and the Absolute.

It would be difficult to find a better summary of this narrative logic than the closing words of Asimov's 1955 novel **The End of Eternity**, which is the source text of Stross' 2009 novella **Palimpsest**, “the final end of Eternity. And the beginning of infinity” (190). Not to try and imagine a single eternal future to comfortably secure humanity for good regardless of the price, but to realize the infinity of the present, its infinite potential to imagine infinite lines of the future, embracing all the uncertainties and complexities it holds without projecting fear or rigid idealistic programs: Such is the beauty of the post-Singularity sub-genre as an art form. The general inclination to date has always been to look for definite answers in science fiction with rather shallow realist expectations and renounce many contemporary

works as unreadable, escapist, weak and indifferent if they do not resolve the dilemmas of the contemporary world. There still seems to be a confusion between functions of science and science fiction, and an unspoken difficulty to appreciate the latter as a form of art, while even contemporary science has come to terms with the paradoxical and uncertain nature of the universe, and learned to apply contradictions as a creative force. Post-Singularity fiction is likewise subjected to change as a diverse sub-genre which is still developing, and to encumber it with a militant mission that it is not apt for would actually strip it off its possibilities as an art form. As it seems, the most inventive and relevant works of science fiction of the 21st century in general will completely break with conventional predictive and didactic forms of narration. Perhaps, this is the only reasonable option: In a global culture which has not even properly developed into a Type I civilization that can control all the processes of its own planet without destroying it, the most irrational expectation from a science fiction writer would be to predict what a great technological leap would entail for us, let alone construct a rescue program for us to live happily ever after.

CONCLUSION

Despite its name, *the Singularity* has gained multiple meanings and forms, by and large, thanks to the power of literary fiction to imagine the unimaginable and pose challenges to conventions. In the context of post-Singularity fiction, these conventions include (1) academic conventions as it concerns the attitude towards the genre, (2) aesthetic conventions of science fiction as a literary genre, and (3) the economic and political implications behind the scenario of the technological Singularity outside (at least, acknowledged) fiction. In this study, I proposed a comprehensive analysis of post-Singularity fiction in all these interlocked three aspects, focusing on three novels by Charles Stross. Starting from the first point, I put the sub-genre into a historical and aesthetic perspective by tracing the 20th century forerunners of post-Singularity fiction and demonstrating them to be a part of the neo-Baroque paradigm which informs various 20th century philosophies and artistic production. As a result, I defined the 21st century post-Singularity fiction as an extension of the neo-Baroque, alternative form of art beyond the limits of the more popular paradigms of utopia/dystopia duality and apocalyptic fiction. I traced the historical, philosophical and artistic roots of the sub-genre and demonstrate that it is a specific extension of the 20th century neo-Baroque which challenges the generic aesthetics of the works that gave rise to it, particularly the aesthetics of apocalypse, utopia and dystopia. Having thus clarified the critical stance of the sub-genre towards its predecessors, I moved on to discuss the economic, political and ideological implications of this aesthetic turn in relation to the non-fictional discourse of the technological Singularity, showing that not only does it subvert the right-wing ideology embedded in this discourse, but it also revises, by way of narrative, contemporary leftist economic and political models. I offered an analysis of the issuing alternatives through the 20th century neo-Baroque theoreticians and the early 21st century developments in exchange and object-relations with the advent of the World Wide Web.

This theoretical framework constitutes the backbone and originality of my study. In future studies, it can be applied to other contemporary works of science

fiction, particularly maximalist projections of the future which include an ontological break in one or more narrative elements moving beyond representation and conceptualization, striving to construct literary devices out of current techno-political conditions and see beyond the reality of late capitalism – and its appropriation of radical ideas – without succumbing to unfruitful negation or pure cynicism towards change. The interdisciplinary theoretical approach to science fiction suggested in this study first and foremost treats these works as an art form, and ambitiously emphasizes to read them alongside other forms of art with all the complexities and literary possibilities they offer, rather than mere political statements (which may be also profoundly embedded in these works).

Indeed, the inferences of this framework are drawn from specifically my research on the birth of the post-Singularity genre itself and the need to develop analytical tools that its generic innovations engender. As such, I applied it to the foundational post-Singularity works by Stross, first and foremost analysing his **Accelerando** with respect to the neo-Baroque uses of paranoia in literature and philosophy as a defining semiotic structure of the neo-Baroque socio-cultural production, the concept of the alien in neo-Baroque science fiction as an expression of utopia and dystopia as well as the ontological groundlessness of the Human in the context of neo-Baroque body politics, and Foucauldian heterotopia as a conception of neo-Baroque spatiality. I demonstrated that Stross introduces the logic of pronopia as a driving force of his narrative in order to reformulate the concept of the Singularity beyond antithetical categories as found both in fiction and futures studies (the dichotomy of utopia and dystopia in the former, the definition of the technological Singularity as an unconceivable threshold in the latter), retaining his political stance of leftist accelerationism, which advocates active participation in the processes of free market relations and production to accelerate the consequences of capitalism, rather than reactively opposing it or assuming a marginalized position. This, as I discussed, is a critical step towards constructing transhuman subjectivities on a radically materialist plane compatible with the post-Singularity setting the text produces around the evolution of posthuman AI entities, as well as compatible with

Stross' reformulation of material reality as an assemblage of information that can be re-organized according to the post-scarcity logic of peer-to-peer file sharing. I showed that the co-existence of these two alien civilizations (both alien to the reader and each other) opens up the possibility of a pragmatic spatiality and ethics of absolute difference which reads as a transformative statement on neo-Baroque relativism.

In short, a comprehensive look into **Accelerando** in relation with the neo-Baroque as offered in this study demonstrates that the use of the Singularity as a literary device complicates its meaning and engages it with contemporary discourses of aesthetics, politics, economics and ethics. To elaborate this point further, I extended my study to contain two more texts in which Stross multiplies and applies the concept for different historical and narrative trajectories, totally stripping it off its ideological limitations that occur when seen just as an end-of-history scenario. **Glasshouse** shows the challenges that post-Singularity subjectivities pose to conventional modes of narration (particularly first-person narrative), and introduces the idea of a backward Singularity which occurs from a post-Singularity setting to a simulation of the 20th century suburbia modeled after Foucault's panopticon. I argued that Stross, by means of the artificial (yet fluid) shift from post-biological and post-gender bodies to a gendered human society, actually establishes a common non-essentialist ground for human and posthuman identities and uses the concept of the Singularity not as an irreversible leap generated by a teleological take of progression but a portal through which the reader can simultaneously glimpse into the present and the future, once again moving beyond the tint of idealism implicated in the notion. Furthermore, by depicting the Singularity in a post-Singularity setting, which by definition has already gone through one, the text also opens up the possibility that the concept can be reformulated not only as a multidirectional but also repetitive (and relative) force of history without an essential positive or negative value in itself. This possibility is further examined, as I discussed, in **Singularity Sky**, which covers the hard take-off Singularity scenario (as opposed to **Accelerando**) that occurs multiple times. In the final analysis, I demonstrated that Stross once again applies the concept

to bring asymmetric and alien forces together in order to challenge existing sub-genres of science fiction – particularly space opera in this text, and revise the conventional political spectrum before the concept of the Singularity, in favor of an ethics of absolute difference and gift economy as can be imagined alongside the 21st century technologies.

Prior to this study, specific elements of Stross' work have been called “New Baroque,” particularly in relation with Golden Age space operas (Hollinger, 2008: 244), and post-Singularity fiction has been included in several studies which examine contemporary post-cyberpunk fiction with respect to possible worlds after capitalism, as I presented in my literature review. However, to date, this study is the first one to define, conceptualize and put the post-Singularity subgenre into a historical perspective. As such, I limited my analysis largely to its seminal texts by Stross. Future studies on the field can shed light on the directions the sub-genre may take and the new possibilities it may offer, along with the thought of the neo-Baroque which, by definition is a tradition of novelty and bound to evolve. Accordingly, this study opens up a perspective to develop, instead of saying the final word. Throughout the study, I tried to demonstrate that post-Singularity fiction as a literary form of art does the same.

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Tez Başlığı: “The Ethico-Aesthetics of Machinic Components in Thomas Pynchon's *Gravity's Rainbow*: A Deleuzoguattarian Approach”

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Tez Başlığı: “Beyond the neo-Baroque: 'The New Red' Aesthetics of Charles Stross' Post-Singularity Fiction”

Tez Danışmanı: Doç. Dr. Canan Şavkay

Akademik Yayın:

- “Possibilities of Habit-Change in *The Essex Serpent*: A Semiotic Analysis of Cora Seaborne.” *IDEAS: Journal of English Literary Studies*, vol. 2, no. 1, 2022, pp. 73-87, <https://dergipark.org.tr/tr/pub/ideas/issue/69623/1110147>

Çalışma ve İlgi Alanları:

- Güncel Bilimkurgu
- Postmodern Edebiyat
- Disiplinlerarası Edebi Kuram
- Karşılaştırmalı Edebiyat
- Yaratıcı Yazma
- Modern Drama

Yabancı Diller:

- İngilizce
- Rusça