

Advanced ideas, Anachronistic landscapes: The Contradictions of Science in Machado de Assis

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This thesis is submitted for the degree of Doctor of Philosophy

DECLARATION

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the preface and specified in the text.

I further state that no substantial part of my thesis has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text.

It does not exceed the prescribed word limit for the Modern and Medieval Languages and Linguistics Degree Committee.

ABSTRACT

This thesis explores the theme of science in the short stories of the nineteenth-century Brazilian writer Machado de Assis, with an emphasis on 'O Alienista' (1882), 'A Sereníssima República' (1882), 'Idéias de Canário' (1899), 'O Segredo do Bonzo' (1882), 'Conto Alexandrino' (1884), 'Verba Testamentária' (1882) and 'O Lapso' (1884). With a particular interest in the many ways in which Machado deploys scientific theories as literary and sociological devices, this research examines how a broad concept of 'unreason' critiques modern state institutions such as hospitals, museums, prisons and government-sponsored medical projects. The critique extends to the self-professed liberal and politically independent scientific discourse in Brazil in the late nineteenth century, when the country was undergoing profound political, economic and social changes, especially those modes of discourse and political intervention promoted by an economically and racially hegemonic and homogenous intelligentsia. While Machado de Assis uses madness and egocentrism to challenge the idealistic view of the putatively reasonable and progressive 'man of science', he also denounces social tensions aesthetically through temporal and spatial displacements as well as fantastic elements, such as talking animals or absurd situations, which dialogue with the ancient tradition of the fable. The critical outcome is, thus, an ethically charged poetics of unreason which is a product of an ironic scepticism vis-à-vis Romantic nationalism, literary naturalism and scientific positivism, particularly as they bear on questions of race, gender, class and nationality and as disseminated by scientific institutions.

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CONTENTS

INTRODUCTION	7
1. SUBJECTIVE DOUBLE-BIND: THE PROBLEM OF TIME	7
2. SCIENTIFIC PROCESS: ASSIMILATION OR DECORATION?	13
3. MACHADO DE ASSIS AND THE HISTORY OF SCIENCE AND LITERATURE IN BRAZIL	15
3.1 THE BEGINNING OF LITERATURE AS THE BEGINNING OF SCIENCE (1808 – 1860)	15
3.2 SCIENCE MEETS LITERATURE: POSITIVISTS, ABOLITIONISTS AND REPUBLICANS (1870 – 1880)	19
3.3 SCIENCE MEETS LITERATURE: THEORY OR EXPERIMENTATION? (1880-1900)	24
3.4 DOUBLE-BIND: THE POETICS OF UNREASON	29
1. THE QUIXOTIC SCIENCE: REGRESSIVE PROGRESS	34
POSITIVISM: THE BRAZILIAN SCIENTIFIC RELIGION	34
‘O ALIENISTA’: THE ALIENATED SCIENCE	44
Part 1. The Old and the New: A mismatch of (Hi)story	47
Part 2: Allegory: Positivism <i>a la</i> Quijote	56
Part 3. Simão Bacamarte’s Scientific Society	60
2. SOCIAL LABORATORIES: COLONIAL EXPERIMENTS	72
‘A SERENÍSSIMA REPÚBLICA’: THE EXPERIMENTAL SCIENCE	75
‘IDÉIAS DE CANÁRIO’: THE COLLECTOR’S SCIENCE	90
3. FAMILIAR THEORIES: EXOTIC LANDS	99
‘O SEGREDO DO BONZO’: THE RHETORICAL SCIENCE	102
‘CONTO ALEXANDRINO’: THE TRAGIC SCIENCE	118
4. SOCIAL MEDICINE: STRANGE DISEASES	137
‘VERBA TESTAMENTÁRIA’: THE ENVIOUS WORM	140
‘O LAPSO’: THE SCIENCE OF PAYING	158
CONCLUSION: PLUS ULTRA	176
BIBLIOGRAPHY	185

INTRODUCTION

‘Já dizia o poeta que a verdade pode ser às vezes inverosímil’ (Machado de Assis, *Memorial de Aires*)

‘A la realidad le gustan las simetrías y los leves anacronismos’ (Borges, *El Sur*)

I. SUBJECTIVE DOUBLE-BIND: THE PROBLEM OF TIME

This thesis aims to understand the thematic, conceptual and aesthetic functions of the discourses of science in a selection of short stories by the Brazilian writer Machado de Assis. The texts examined are ‘O Alienista’, ‘A Sereníssima República’, ‘Idéias de Canário’, ‘O Segredo do Bonzo’, ‘Conto Alexandrino’, ‘Verba Testamentária’ and ‘O Lapso’, all of which were written between 1881 and 1899. Machado is generally considered in literary criticism as the founder of Brazilian Realism, a movement that has affiliations with naturalist and scientific principles, and his oeuvre problematises claims to objectivity and rationality through a structure of literary tactics that engage with scientific theories, including their contradictions and inconsistencies. Machado’s narrators ironically and purposefully strip these theories of their intellectual and symbolic value through the construction of their putative opposites: madness, ‘unreason’ and anachronism. At the same time, Machado’s narrators use scientific theories as literary and sociological devices to critique modern state institutions, the burgeoning Republican¹ movement and its ideals. The critique is extended to the self-professed liberal and politically independent scientific discourse in Brazil in the late nineteenth century, which was spearheaded by an economically and racially hegemonic white intelligentsia. While Machado de Assis deploys madness and unreason thematically and conceptually to challenge idealised views of the reasonable ‘man of science’, aesthetically, he denounces social tensions through temporal and spatial displacements. These anachronistic displacements are rife with fantastic and strange elements, such as talking animals and absurd situations, which interact with the ancient tradition of the fable, thus mobilising an ethically charged poetics of unreason.

The notion of an ethically charged ‘poetics of unreason’ that this thesis proposes in relation to Machado de Assis’s short pieces of fiction has its origin in a formal approach. Machado often situates or frames contemporary scientific theories, most notably positivism,

¹ The Proclamation of the Republic took place on 15 November 1889.

Darwinism and phrenology, in remote periods and locations, such as colonial Brazil, ancient China and Egypt. This anachronistic mismatch of stories and history subverts not only the progressive epistemology of scientific discourses but also the descriptive narrative structure of Realism and Naturalism. Anachronism is paired with a second formal approach in which Machado presents scenes featuring ‘men of science’ (scientists and doctors) who are confronted by and contrasted with members of the subaltern human classes (slaves, servants and workers) but also with animals (spiders, birds, dogs and rats). In these clashes, the presumed scientific authorities either lose their capacity for sensible reasoning or become obsessive agents of an abusive form of power. This representation configures what may be termed a ‘double-bind’ of reason and unreason.

According to the Oxford English dictionary, ‘double-bind’ means ‘a situation in which a person is confronted with two irreconcilable demands or a choice between two undesirable courses of action’.² The anthropologist Gregory Bateson problematised the irreconcilable nature of the term by claiming that the ‘double-bind’ is the linguistic product of conflicting exchanges between family and class groups. For Bateson, individuals who are systematically exposed to contradictory directions are more likely to develop schizophrenia.³ Although Bateson’s theory has been discredited by later scholars,⁴ the term was reinterpreted and re-invigorated by the theoretician Gayatri Spivak in relation to post-colonial subjective stances that simultaneously oppose and constitute one another. Spivak describes the double-bind as ‘learning to live with contradictory instructions’⁵ and continues to develop the term within the study of art and culture. For her, the double-bind of post-colonial subjectivity is that the individual is torn between an autochthonous way of understanding life and imported understandings, derived from the colonising authority, and this causes disruption and conflict. Therefore, for Spivak, it is necessary to deconstruct epistemological approaches, whether in philosophy or science, in light of ontological questions that seek to comprehend the origins of these very same epistemologies. She proposes a decolonisation of literary and cultural studies, which rejects dichotomies through the exploration of an aporetic stance,⁶ whose tensions and contradictions offer

² ‘Double bind’, *Oxford Dictionary of English* [online] <https://www.oxfordreference-com.ezp.lib.cam.ac.uk/view/10.1093/acref/9780199571123.001.0001/m-en_gb0240200> [accessed 9 September 2022].

³ Gregory Bateson, *Steps to an Ecology of the Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology* (Chicago: University of Chicago Press, 1972).

⁴ Mathijs Koopmans, *Schizophrenia and the Family: Double Bind Theory Revisited* (1997) <<https://goertzel.org/dynapsyc/1997/Koopmans.html>> [accessed 24 September 2019].

⁵ Gayatri Spivak, *An Aesthetic Education in the Era of Globalization* (Cambridge, MA: Harvard UP, 2012), p. 3.

⁶ The term *aporia* refers to insoluble contradictions and paradoxes. In Derrida’s deconstruction theory, the term exemplifies the most incongruous moment of a text, in which meaning is obscured and doubted rather

alternative interpretations of multiple realities and non-essentialist identities. When applied to Machado de Assis's fiction, the questioning of the 'double-bind' of reason and unreason, typical of modernity, spurs multiple aporetic stances which link emerging modes of discourse to ancient ones in the guise of academic papers and fables, experiments and jokes, specialised and anecdotal language. Such multiple discourses, marked by the double-bind, are intensified and unified in the narrative form of the short story.

One of the most striking characterisations of the short story is by the Argentine writer Julio Cortázar, who argues that short stories follow the same patterns as a boxing match: 'in the struggle between an emotive text and its reader, the novel always wins by points, while the story must win by a knockout'.⁷ In addition to its allusion to the 'unity of effect', cited by Edgar Allan Poe in his metacritical reflections on short stories, the comparison between boxing and literature highlights fundamental characteristics of the genre: the brevity and intensity that seem to hit the reader with surprising moves within an otherwise structured arrangement. Cortázar's assertion is theoretically related to Poe's 'Philosophy of Composition',⁸ which argues that 'mood' and 'emotion' are responsible for the unity and beauty of a work of art. Poe particularly emphasises melancholic beauty, identified as an 'intense excitement' that produces an 'elevation of the soul' in the creative exchanges between the writer and reader. Systematically, the short stories of Machado de Assis intermingle the sense of conflict and competition – represented by Cortázar's knockout – with unified and intensified emotion, formally constructed by a perceptive narrator. This thesis suggests that Poe's 'elevation of the soul' should be reinterpreted in Machado de Assis's fiction as a critical response solicited from an imagined reader. The reader is invited to make associations between the story and the historical and social situation at the time of its composition. The creative exchange that follows produces excitement and thrill but also bewilderment and helplessness, as if the totality of the lived experience could not be fully grasped.

Although neither Cortázar nor Poe underscores historical, social or national dimensions in the writing of short stories, the critic Roberto Schwarz sees the alternation of multiplicity and intensity in Machado de Assis's fiction as a result of social tensions. For Schwarz, in Machado's short stories, 'há uma grande diversidade de formas e, se se coloca a

than fully explained. Jacques Derrida, *Aporias*, trans. by Thomas Dutoit (Stanford: Stanford University Press, 1993).

⁷ Julio Cortázar, 'Some Aspects of the Short Story', trans. by Aden W. Hayes, *Arizona Quarterly*, 38.1 (1982), 5-18, (p. 8).

⁸ Edgar Allan Poe, *Philosophy of Composition* (1846), <<http://www.gutenberg.org/files/55749/55749-0.txt>> [accessed 10 December 2018].

questão de como pensar uma unidade de coisas tão diversas'.⁹ According to Schwarz, the challenge to reading Machado de Assis's short stories lies in the 'unified' variety of their forms and themes. His body of work, encompassing two hundred and twenty-six stories, includes first-person and third-person narrators, biblical stories, letters, academic lectures, fragments of plays and epic poems. However, for Schwarz, this multiplicity is brought and held together by a single characteristic: 'uma grande exploração, muito sistematizada, extremamente poderosa, da experiência histórica brasileira'.¹⁰ Although he does not develop this idea any further here, Schwarz points readers to the most critical problem of nineteenth-century Brazil: 'o problema de uma sociedade escravista inserida no mundo moderno'.¹¹ For Schwarz, the presence of slaves within the pre-capitalist cultural and intellectual order in Brazil was fuelled by more 'primitive' and 'ancient' modes of production, namely a combination of slavery and patronage.¹² In his words:

Como é sabido, éramos um país agrário e independente, dividido em latifúndios, cuja produção dependia do trabalho escravo por um lado, e por outro do mercado externo. (...) Era inevitável, por exemplo, a presença entre nós do raciocínio econômico burguês [e] a prioridade do lucro (...) Além do que, havíamos feito a Independência há pouco, em nome de ideias (...) variadamente liberais, que assim faziam parte de nossa identidade nacional. Por outro lado, com igual fatalidade, este conjunto ideológico iria chocar-se contra a escravidão e seus defensores, e o que é mais, viver com eles.¹³

The above quotation argues that Brazil's national identity was torn between the burgeoning interest in profit and economic emancipation and the colonial presence of slavery and inequality. Schwarz also argues that Machado de Assis's creative unity (whether in fiction, short stories or poetry) problematises the economically liberal notions of social and technological emancipation in relation to the naturalisation of slavery.

A further way to address the double-bind between advancement and underdevelopment in Machado de Assis's short stories and other work is by noting that his fiction scrutinised the many contradictions and idiosyncrasies of Brazilian identity at a critical point in the country's history. As the critic Angela Alonso argues, Brazil was an economically and politically prosperous empire, buttressed by racial segregation, social prejudice and Catholic patriarchal ideology and patronage:

⁹ Roberto Schwarz, 'A Pulga no Cachorro', *Folha de São Paulo*, 28 March 1999 <<https://www1.folha.uol.com.br/fsp/mais/fs28039915.htm>> (para 3 of 7).

¹⁰ Schwarz, 'A Pulga no Cachorro'.

¹¹ Schwarz, 'A Pulga no Cachorro'.

¹² Roberto Schwarz, *Um Mestre na Periferia do Capitalismo* (São Paulo: Duas Cidades, 1991), p. 36.

¹³ Roberto Schwarz, *Ao Vencedor As Batatas* (São Paulo: Duas Cidades, 1992), pp. 2, 3.

A experiência brasileira particularizou os esquemas mentais estrangeiros. Deste acoplamento resultou a tradição imperial, esteada em três núcleos significativos: o indianismo romântico, o liberalismo estamental, o catolicismo hierárquico. Assim, a elite imperial definiu a identidade nacional, instituiu uma forma de organização política que limitava a cidadania e produziu uma representação simbólica de sua ordem social.¹⁴

However, the tripartite structure identified by Alonso started to falter in the late 1860s, with the rise of Comtean positivism, scientific societies, abolitionist movements and, finally, the foundation of the First Brazilian Republic in 1899. Following Schwarz, if the mode of production, namely slavery, was archaic, the modern European intellectual ideas were ‘fora do lugar’ (‘out of place’);¹⁵ that is, these ideas were not utterly misplaced but reinterpreted and repositioned in Brazilian society. For this reason, these very same ideals fostered internal change and created new political movements that contested the imperial status quo and its social segregation and rigidity. Machado de Assis’s narrators, intricate plots, experimentation with different forms, and complex characters scrutinised the incongruities that accompanied the transition between the Empire and the new Republic. Therefore, conflicts, multiple debates and aporetic stances not only represented the new social *Zeitgeist* but also an intellectual and artistic engagement with these very same public debates. The confluence of artistic invention and historical change thus gave rise to innovative and political stories.

Without examining the specific characteristics of scientific discourse, Schwarz analyses the novelistic production of Machado de Assis. However, Schwarz’s reading can be further developed through an exploration of the short stories and the scientific theories they mobilise. Machado de Assis’s men of science seem to be equally ‘out of place’ and historically ‘backward’, which results in vexed intellectual exchanges with their European counterparts. Particularly explored in seven stories from the volumes *Papéis Avulsos* (1882), *Histórias sem data* (1884) and *Páginas Recolhidas* (1899), the doctors and scientists studied – Doctor Simão Bacamarte (‘O Alienista’), the pomadistas (‘O Segredo do Bonzo’) and Canon Vargas (‘A Sereníssima República’) – follow nineteenth-century philosophical ideals, such as positivism and extreme versions of Darwinism, in the form of racially biased explanations for human physiological and psychological changes. The times and spaces in which these

¹⁴ Angela Alonso, *Idéias em movimento: a geração 1870 na crise do Brasil-Império* (São Paulo: Paz e Terra, 2002), p. 56.

¹⁵ Roberto Schwarz follows the ‘base’ and ‘superstructure’ model conceived by Karl Marx. In his reading of Brazilian nineteenth-century society, Schwarz observes that the superstructure (political and social institutions, liberal ideals, universities and art) was advanced whereas the base (slavery and patronage as forms of production) was primitive. Schwarz, *Vencedor*.

stories are set vary in that they generally take place centuries earlier, either in early colonial Brazil or other exotic locations such as Imperial China or Renaissance Venice. The author advances this incongruous perception of time and space in *Histórias sem data* (1884), through the Dutch doctor Jeremias Halma ('O Lapso') who relocates to an impoverished Rio de Janeiro in the eighteenth century and uses social medicine to cure one of his patients. The anatomists from Alexandria ('Conto Alexandrino') discuss criminal genetics and gendered identities, which were in vogue due to Cesare Lombroso's *The Criminal Man* (1887) and Charles Darwin's *The Descent of Men* (1871), despite the story's setting in Ancient Egypt.

Following Schwarz's thinking, if the cultural superstructure is advanced and the economic base primitive, Machado de Assis's scientists seem to be following the latest European theoretical trends but are still hindered by their social environment. The time and space appear retrograde and regressive while the intellectual ideas the stories express – and question – are cutting-edge and forward-looking. The placement of nineteenth-century medical and technological theories in remote and exotic locations thus creates an anachronistic structure that disrupts not only the progressive epistemology of science (as previously noted) but also the intellectualised aura of orderly advancement and progress. This backward glance, which challenges the historical present and undercuts the illusion of an unbroken idealistic future, can be read as a narrative tendency towards anachronism.

The first critic to highlight one type of anachronism in Machado de Assis was Antonio Candido, who argued that Machado cultivated a fictional style with narrative interventions and temporal gaps in order to delay conflict resolutions and enhance interpretative possibilities. For Candido, this narrative fragmentation was an antidote to the fashionable techniques employed by Flaubert and Zola, which tended to erase a personalised narrative voice in favour of 'o inventário maciço da realidade, observada nos menores detalhes'.¹⁶ Following Candido's idea, João César de Castro Rocha expands the notion of archaic reference to a broad temporal anachronism:

In the case of Machado's literature, one must move forward — but above all, backward — through the unending flow of time periods ... This is a deliberately anachronistic poetics, thus imitating in a modern form the classical technique of *aemulatio*. This is a crucial point: I am referring to a reverse anachronism, productive in its inversion of the normal chronology of literary history. This is not a matter of projecting current values onto tradition, but rather the contrary, rethinking these values with a basis in that tradition.¹⁷

¹⁶ Antonio Candido, *Vários Escritos* (São Paulo: Duas Cidades, 1995), p. 22.

¹⁷ João Cezar de Castro Rocha, *Machado de Assis: Toward a Poetics of Emulation*, trans. by Flora Thomson-DeVeaux (Michigan: State University Press, 2015), p. 119.

Rocha examines the particularities of a literary ‘reverse anachronism’, which tampers with the linear chronology of literary time. Another angle on this notion of anachronism is that the reversal – or troubling – of time enables the author to distance his stories from the historical present and create allegorical representations of the period between 1881 and 1899, which frames the end of the Empire and the beginning of the Republic. It also expands the scope of creative possibility for short fiction, creating, as Candido mentions, multiple meanings.

Having established the main problem of this thesis: the pluralistic and intense tension between notions of advancement and underdevelopment in Machado de Assis’s short fiction on science and scientists, it is important to reconstruct and reposition Machado de Assis’s appreciation of Brazilian science and intellectuality in the nineteenth century.

2. SCIENTIFIC PROCESS: ASSIMILATION OR DECORATION?

The meanings and functions of science in nineteenth-century Brazil are multifaceted and littered with complex temporal and spatial issues. However, four major trends can be identified that flourished in the course of the century: positivism, experimentalism, racial theories and social medicine. The very same trends were not only absorbed by Machado de Assis but also turned into literary ‘experiments’, in what could be metaphorically observed in the scientific meaning of the word: ‘a scientific study in which the investigator deliberately alters some of the conditions of whatever is being observed in order to study the effects of making the alteration(s).’¹⁸ In the case of the stories scrutinised, Machado alters both Brazilian social conditions and the narrative structure to test the validity of scientific philosophies and theories.

In his work as a literary critic, Machado de Assis hints at what he considers a true ‘processo científico’ – ‘scientific process’ – as opposed to its pedantic appropriation by peers. Commenting on the poetry of Sílvio Romero, Teófilo Dias and their lesser-known contemporaries, whose work did not last the test of time, the author argues that the new Brazilian generation lacked literary style and unity, as a result of their endorsement of foreign science and politics, without using them as material for literary scrutiny:

¹⁸ ‘Experiment’, in *Oxford Dictionary of Public Health*, 2nd edn, [online] <<https://www-oxfordreference-com.ezp.lib.cam.ac.uk/view/10.1093/acref/9780191844386.001.0001/acref-9780191844386-e-1428?rskey=1pLF82&result=4>> [accessed 9 September 2022].

A nova geração frequenta os escritores da ciência; não há aí poeta digno desse nome que não converse um pouco, ao menos, com os naturalistas e filósofos modernos. Devem, todavia, acautelar-se de um mal: o pedantismo. Geralmente, a mocidade, sobretudo a mocidade de um tempo de renovação científica e literária, não tem outra preocupação mais do que mostrar às outras gentes que há uma porção de coisas que estas ignoram; e daí vem que os nomes ainda frescos na memória, a terminologia apanhada pela rama, são logo transferidos ao papel, e quanto mais crespos forem os nomes e as palavras, tanto melhor. Digo aos moços que a verdadeira ciência não é a que se incrusta para ornato, mas a que se assimila para nutrir; e que o modo eficaz de mostrar que se possui um processo científico, não é proclamá-lo a todos os instantes, mas aplicá-lo oportunamente.¹⁹

Machado makes a clear distinction between what he considers as the ‘scientific process’ and a crude application of naturalist terminology. For him, the new literary generation prioritises crispy terms and philosophy, which sounds pedantic and naïve. In contrast to this ornate application of science, the author contends that scientific ideas should be developed through a critical appropriation, as he stresses in ‘assimilar pela nutrição’, in an appropriately gradual manner. As well as accusing the new writers of a gratuitous political commitment, the author believed that they confused literature and republicanism: ‘Não falta quem conjugue o ideal poético e o ideal político, e faça de ambos um só intuito, a saber, a nova musa terá de cantar o Estado republicano.’²⁰ Machado de Assis saw the link between literature, science and politics as a partisan flaw. From the very beginning of his career as a writer, he believed it necessary to find an original form within the confines of literature that would critique society without mimetically reproducing it. In a private letter to Quintino Bocaiúva from the early 1860s, he confessed that he tried to create a particular kind of literature:

onde o estudo dos caracteres seja consciencioso e acurado, a observação da sociedade se case ao conhecimento prático das condições do gênero – eis uma ambição própria de ânimo juvenil, e que eu tenho a imodéstia de confessar.²¹

It is possible to deduce from this quotation that Machado was interested in amalgamating society and literary form. In other words, the literary form was in itself supposed to represent society.

¹⁹ Machado de Assis, ‘A Nova Geração’ (1879). <<https://machado.mec.gov.br/obra-completa-lista/itemlist/category/28-critica?start=24>> [accessed 9 September 2022] (para 70 of 71).

²⁰ Assis, ‘A Nova Geração’ (para 5 of 71).

²¹ Machado de Assis, ‘Carta a Quintino Bocaiúva’ [Dec 1862 – Mar 1863] org by Sérgio Paulo Rouanet, in *Correspondência de Machado de Assis – Tomo I* (Rio de Janeiro: Biblioteca da Academia Brasileira de Letras, 2008), p. 20.

Recontextualising the ‘scientific process’ in relation to the ‘conscientious and accurate study’ of the genre and society, it is possible to observe that Machado de Assis assimilates the four major scientific trends of the nineteenth century – positivism, experimentalism, racial theories and social medicine – and critiques them through intricate plots, temporal and spatial displacement, and narrative fragmentation, all of which will be detailed in close readings of the selected short stories. In order to historicise these trends, the next sections will link Machado de Assis’s life to the history of science in Brazil and explain why his fiction seemed suspicious and cautious of scientific optimism.

3. MACHADO DE ASSIS AND THE HISTORY OF SCIENCE AND LITERATURE IN BRAZIL

3.1 THE BEGINNING OF LITERATURE AS THE BEGINNING OF SCIENCE (1808–1860)

Machado de Assis, or ‘Machadinho’ – his nickname as a young man – was the son of Francisco José, a freed slave, and Maria Leopoldina, an Azorean washwoman.²² He was born in 1838, in Morro do Livramento, a port area in Rio de Janeiro which belonged to the influential Mendonça Barroso Pereira family, active politicians and farmers. At an early age, he lost both his younger sister and his mother, which led his father to a second marriage with the *mulata* Maria Inês, who taught him reading and simple mathematics and encouraged him to go to school. After the death of his father, Maria Inês started working in a school for girls, where Machado had access to books and would overhear ‘classes’ through closed doors. At the same time, he became friendly with Madame Gallot, a bakery owner, who taught him the French language and literature. In 1855, Machado started attending prestigious literary meetings at the Bookshop Paula Brito, where he expanded his tastes and gained the confidence to publish his first poems in the periodical *A Marmota* (1858).

At the same time as Machado was developing his literacy and linguistic skills, the Brazilian scientific and research institutions were also taking their first steps. The historians Nancy Stepan²³ and Maria Emilia Dantes argue that institutional science began with the arrival of the Portuguese Royal Court, in 1808, when the capital was ‘aparelhada com instituições necessárias à sua vida administrativa e social: escolas profissionais, uma

²² Lúcia Miguel Pereira, *Machado de Assis: Estudo Crítico e Biográfico* (Belo Horizonte: Editora Itatiaia, 1998).

²³ Nancy Stepan, *Beginnings of Brazilian Science* (New York: Science History Publications, 1976).

biblioteca, um horto, e um museu de História Natural entre outras medidas'.²⁴ With the rampant growth of cities and, therefore, population and diseases, there was a need for medical doctors, which led the Prince Regent to create the Academies of Medicine and Surgeries (1808). Along with these institutions, 'licensed and unlicensed druggists, as well as faith healers of all kinds, served the medical needs of those unable to afford or out of reach of licensed physicians'.²⁵ This social rearrangement, which allowed the coexistence of official and unofficial medical practices, stimulated myriad answers, not always complementary, to questions regarding the origin of illnesses (pathology) and the functioning of the body (physiology).

The fourteen years between the settlement of the Royal Court and the independence of Brazil in 1822 turned medicine and science into official areas of study, and changes in historical and social conditions also inspired the creative arts. For example, the first Brazilian novel, *A Moreninha* (Joaquim Manuel de Macedo, 1844), portrays the friendships and love affairs of four medical students. The most important Romantic novelist, José de Alencar, discussed in his regional tales the repercussions of disease and issues facing doctors in his urban settings. In his novel *Lucíola* (1862), the title character is forced into prostitution after surviving the 1850 yellow fever outbreak that impoverished and killed many of her family. In *Diva* (1864), the chivalrous doctor Augusto cures Emilia, a feisty young woman who eventually becomes his wife. These are several examples of the cross-fertilisation and transculturation of medicine and science,²⁶ which profoundly altered the plots and settings of Romantic novels. At the same time, Joaquim Manuel de Macedo and José de Alencar were Machado's influences and interlocutors.

In the early 1850s, under the tutelage of Father Silveira Sarmiento, Machado improved his scholarly knowledge, immersing himself in reading at the *Real Gabinete Português de Leitura* (a Portuguese library built in 1837) and revising manuscripts for the *Correio Mercantil*. In 1858, he published his first work of literary criticism, 'O Passado, o Presente e o Futuro da Literatura', which nationalistically supported the creative potential of Brazilian fiction, poetry and drama after independence. He would later elaborate on this essay to produce a more thorough criticism in 1873, 'O Instinto de Nacionalidade', in which he criticises Portuguese and Indian influences in the *belles lettres* of the period. In the 1860s,

²⁴ Maria Amélia Dantes, 'Fases de Implantação da Ciência no Brasil', *Quipu – Revista da Sociedade Latino Americana de História da Ciência e da Tecnologia*, 5,5 (1988), 265-275, (p. 267).

²⁵ Stepan, p. 24.

²⁶ This is the term that the critics Fishburn and Ortiz use to interpret the interrelation between science and literature in Latin America. Evelyn Fishburn and Eduardo L. Ortiz, *Science and the Creative Imagination in Latin America*. (London: Institute for the Study of the Americas, 2015), p. 8.

Machado started writing for the *Diário do Rio de Janeiro*, *A Semana Ilustrada* and *Jornal das Famílias* where he developed liberal and anticlerical ideas. In 1866 he met Carolina Augusta, the sister of his journalist friend Faustino Xavier de Novais. They fell in love and married in 1869. Carolina introduced him to English writers; her influence was such that Machado's niece claimed Carolina edited his work with a 'feminine friendly' outlook²⁷ and a European Portuguese idiolect.²⁸ The blissful union inspired Machado to write the novels *Ressurreição* (1872), *A mão e a Luva* (1874), *Helena* (1876) and *Iaiá Garcia* (1878) in what is often described as his 'Romantic phase'.

As noted previously, although physicians were usually depicted as romantic heroes, Machado portrays them in *Ressurreição* (1872) and *Helena* (1876) as slightly flawed and ambitious figures. For instance, Dr Felix (*Ressurreição*) is so possessive that his fiancée Livia breaks off their engagement, and Dr Camargo (*Helena*, 1876) seeks social advancement by marrying his daughter to the patriarch hero of the novel, Estácio. Similarly, Machado's first collections of short stories, *Contos Fluminenses* (1870) and *Histórias da Meia-Noite* (1873) contain many doctors, some displaying behaviours of characters in Romantic novels, such as Camilo, who falls in love and settles in Goiás after studying in Paris, and others more eccentric, such as Dr Mendonça from 'Miss Dollar' (1870) who collects dogs and falls in love with Margarida, who lost her precious puppy Miss Dollar. These works are mainly concerned with romantic feelings and relationships, attractive to the ladies of the burgeoning Imperial court, who longed for love stories inspired by French tastes. However, they also foreshadow Machado's later works which addressed critical and complex themes, such as the ambiguity of doctors and science, insanity and jealousy.

One explanation for the constant presence of physicians in Romantic narratives – and in the work of Machado de Assis – in the first half of the nineteenth century is the result of the social practices spearheaded by social medicine – *medicina social* or *higienismo*. The psychiatrist and psychoanalyst Jurandir Freire Costa argues that the movement adopted the role of supervising and controlling the population, akin to that of the colonial patriarchal families before the arrival of the Royal Court.²⁹ Until then, Brazilian cities were dominated by an irregular and violent security and judicial system, responsible for punishing and judging those who did not follow the law. With the new social organisation, the government

²⁷ A propos of this theme, Machado de Assis's grand-niece, Ruth Leitão de Carvalho e Lima, stresses: 'Quando ela [Carolina] não ficava satisfeita com os rumos de uma história, dizia que ele estava maltratando a heroína e por isso mudava'. Cristina Grilo, 'Mulher escreveu textos de Machado de Assis', *Folha de São Paulo*, 9 April 1999 < <https://www1.folha.uol.com.br/fsp/ilustrad/fq09049907.htm> >.

²⁸ Pereira, L., p. 119.

²⁹ Jurandir Freire Costa, *Ordem Médica e Norma Familiar* (São Paulo: Graal, 1983), p. 21.

centralised these activities. The *higienistas*, therefore, had the task of organising sewage and sanitation and improving the impoverished conditions of cities in colonial and post-independent Brazil. Moreover, they became an important agent of control and power:

Entres os trunfos da superioridade médica, um dos mais importantes foi a técnica de higienização das populações. Na Colônia, a conduta anti-higiênica dos habitantes era um dos empecilhos fundamentais à saúde da cidade... A medicina, servindo-se de técnicas análogas às da militarização, contornou esta situação. Suscitou o interesse do individuo por sua própria saúde. Cada habitante tornou-se seu próprio almotacé e, em seguida, almotacé da sua casa e da vizinhança... a ética leiga dos higienistas fez ver que saúde da população e do Estado coincidiam. A saúde da população inscrevia-se, assim, na política de Estado.³⁰

Another factor that led writers to portray scientists was the opening of the economy to foreign trade ('abertura dos portos') in 1808. Additionally, the marriage of the Brazilian Prince Regent, Dom Pedro, to the Austrian Archduchess Leopoldina (1817) brought European scientific missions to Brazil to examine its flora and fauna. Such missions, one of which included Charles Darwin in 1831, motivated local botanists to create the *Sociedade Velosiana de Ciências Naturais* in 1850.³¹ However, the romantic representation of the physicians was out of sync with the imperial infrastructure, which remained focused on agriculture, exporting primary materials and importing manufactured products.³² The historian Gildo Magalhães notes that a lack of resources and incentives prevented the sciences from advancing industry and technology. Although the *Sociedade Auxiliadora da Indústria Nacional* (1828), developed significant research in agricultural plans, it reinforced the view that Brazil had a 'vocaç o agrícola'.³³ This is represented, and perhaps reinforced, in the literature of this earlier period through images of exploitative slave labour, authoritarian patriarchal families and fixed class structures.

Perhaps Machado's representation of medicine as not ideal was due to his background as an outsider. Despite his established and successful career as a writer, and his secure civil service job in the Ministry of Agriculture, his poor background, mixed-race appearance and informal education did not allow him to feel completely at ease in his new

³⁰ Costa, J. F, *Ordem Médica*, pp. 29, 30.

³¹ Stepan, p. 27.

³² Gildo Magalhães, 'Ciência e Técnica no Brasil Durante a Monarquia (1808-89)', *Revista de História*, 148.1 (2003), 125-156 (p. 130).

³³ 'A independência política em 1822 não foi acompanhada de independência econômica – os vários tratados desfavoráveis com a Grã-Bretanha entraram como moeda de troca numa duvidosa troca de favores, que foi o processo adotado de reconhecimento da emancipação nacional'. Magalhães, p. 127.

environment. Roberto Schwarz³⁴ and Pereira note an association between Machado's heroines and his biography: all had humble beginnings and rose socially through marriage or family ties. All also felt dislocated in their new classes and families and had to overcome their deprived upbringing.

3. 2 SCIENCE MEETS LITERATURE: POSITIVISTS, ABOLITIONISTS AND REPUBLICANS (1870–1880)

The second half of 1870 marked a dramatic transition in Brazil's intellectual and political thought which radically affected Machado de Assis's work. The decline of the sugar plantations, the growing importance of the southern region and the abolitionist movements profoundly altered the social and cultural landscape of Brazil. Romantic novels, with their developing interest in urban settings, began to show a country whose agrarian, political and religious basis was in crisis.³⁵ Moreover, the abolitionist poetry of Castro Alves offered a new historical, moral and philosophical interpretation of the oppressive systems of the Empire.³⁶ In Alfredo Bosi's words, 'o tema da Abolição e, em segundo tempo, o da República serão o fulcro das opções ideológicas do homem culto brasileiro a partir de 1870'.³⁷ While abolitionism was politically defended in Parliament by Joaquim Nabuco, Andre Rebouças, Gusmão Lobo and Joaquim Serra, republicanism was disseminated intellectually by the Escola do Recife and its most eminent members, Silvio Romero, Tobias Barreto and Clóvis Beviláqua.

The two ideological options proposed by Bosi were an additional result of the internal conflicts generated by the Paraguayan War (1864–1870). In 1868, intending to assert his authority over differences in war strategy, the emperor dismissed the liberal prime minister and summoned the minority Conservative party to form a new government. This provoked the outrage of the liberal wing, which split off to found a new Radical Liberal

³⁴ Roberto Schwarz, *A Obra Aberta de Machado de Assis*, 2011, <<https://www.youtube.com/watch?v=m5yITc5sKN8&t=230s>> [accessed 3 December 2019].

³⁵ Alfredo Bosi, *História Concisa da Literatura Brasileira* (São Paulo: Editora Cultrix, 1995), Chapter V, Paragraphs 1, 2 and 3. EPUB file.

³⁶ The poetry collection *Os Escravos* (1883) contains a series of poems that question the moral basis of slavery. Each poem, accompanied by an epigraph by Victor Hugo, Lord Byron, Aesculus or the Bible, creates a sentimental portrait of the hardship that slaves faced daily. The most common themes were the journey from Africa to Brazil ('Navio Negreiro'), the longing for their native land ('A Canção do Africano) and the separation of mother and son ('Tragédia no Lar').

³⁷ Bosi, *História*, Chapter V, Paragraph 4. EPUB file.

party, which would only two years later become the Republican party.³⁸ The new party, seeking the support of the slaveholding plantation owners, especially in São Paulo, was evasive about the liberation of slaves, whereas the Conservative party approved all three bills that eventually led to the abolition of slavery: the 'Lei do Ventre Livre' (1871), brought by the Viscount of Rio Branco, the 'Lei do Sexagenário' (1885) and the 'Lei Áurea' brought by Princess Isabel (1888).

According to Thomas Skidmore, the abolitionist cause gained prominence in 1866, when a group of French intellectuals appealed to the emperor, pleading with him to end slavery.³⁹ Pedro II, busy with the Paraguayan War, asserted that it was a matter of time before the country freed its slaves. He even went one step further in freeing the slaves who enlisted to fight in the war. However, it was a new generation of free thinkers who would lead the abolitionist campaign. The abolitionist group, characterised by Angela Alonso as the 'novos liberais', usually belonged to traditional families whose power was declining. They were also trained lawyers who had travelled around Europe and absorbed liberal ideas from French and English intellectual groups.⁴⁰ Inspired by what they witnessed in political terms – the rise of reformist rulers, such as Bismarck in Germany and Cavour in Italy – they believed in 'reformas emancipacionistas',⁴¹ which would be introduced gradually, with no revolutionary or systemic transformation, hence their preference for the monarchy. Their interest in the liberation cause was related to a modernising spirit that would enable Brazil to become a truly liberal society, where industries and specialised labour could flourish. Their most important representative was Joaquim Nabuco, a diplomat with significant influence in politics and literary circles. Having travelled to Washington, London and Paris, Nabuco created the Brazilian Anti-Slavery society and argued that the 'abolicionismo deveria ser a escola primária de todos os partidos, o alfabeto da nossa política' and that slavery was a shameful anachronism in Brazil', out of step with the progress of the century.⁴² This moral view was expressed in his treaty *O Abolicionismo* (1883), which combined a journalistic tone with scientific metaphors inspired by Agassiz, Humbolt and Darwin. Additionally, he believed that abolition was a matter for the state: 'não é por esses engenhos

³⁸ Thomas Skidmore, *Black into White: Race and Nationality in Brazilian Thought* (New York: Oxford University Press, 1974), p. 8.

³⁹ Skidmore, p. 14.

⁴⁰ Alonso, *Ideias*, p. 115.

⁴¹ Alonso, *Ideias*, p. 119.

⁴² Joaquim Nabuco, *O abolicionismo*, 2nd edn, (Petrópolis: Vozes, 2000), p. 7.

e fazendas que se há de fazer a abolição, é no parlamento'.⁴³ Black agency had also gained strength since the beginning of the 1870s with different forms of resistance.⁴⁴

However, as historian Celia Maria Marinho de Azevedo observes, critiques of slavery did not escape the elites' ideology: 'a representação do escravo como inimigo doméstico está imbricada nas próprias origens do antiescravismo no Brasil, podendo ser encontrada em muitos tratados emancipacionistas publicados desde o início do século XIX.'⁴⁵ Furthermore, as Skidmore and Azevedo argue, many abolitionists still subscribed to the racial hierarchy proposed by European scientists of the period, who not only dehumanised black people but also endorsed the 'whitening' of the population through European immigrant labour. Abolitionist novels of the period, such as *Escrava Isaura* (Bernardo Guimarães, 1875) and *As vítimas-algozes* (Joaquim Manuel de Macedo, 1969), exemplify this ideology. Through a sentimental aesthetic, the former depicts an abused *mestiça* slave – more white than black – to inspire pity and sympathy for the abolitionist cause. Resorting to positivism and 'pre-naturalist' descriptions, the latter represents the stereotypical view of the slave who becomes a criminal due to environment and biology.

A similarly racially charged alliance between scientific ideals and republicanism was spearheaded by the group Positivistas Abolicionistas⁴⁶ and the Escola do Recife. Led by figures such as Miguel Lemos, Aníbal Falcão, Silvio Romero, Tobias Barreto, Clóvis Beviláqua and Araripe Júnior, the group aimed to renew the intellectual thought of the country. Influenced by Augusto Comte's positivism, they were at the intersection of historical, social and scientific thought. The Positivist Society was founded in Brazil in 1881 by Miguel Lemos, who studied in Paris with Pierre Lafayette, the official successor to Comte. One of the main goals of the group was to encourage a progressive approach to humanity and defend the abolitionist cause. Through political truth and transparency, society would reach a 'positivistic' advanced stage, or a

regime de benemerência pelo qual os ricos, ditos chefes industriais, zelassem, via administração pública, pelo bem-estar dos pobres, ditos proletários. Os lemas propostos vinham nesta sequência: o Amor por princípio, a Ordem por base, o Progresso por fim. O dístico de nossa bandeira republicana, *Ordem e Progresso*,

⁴³ Nabuco, p. 32.

⁴⁴ The slaves of the 'engenhos' of Benfica and São Bento, in Bahia, refused to work as act of rebellion. They also escaped as a form of resistance. Walter Fraga, *Encruzilhadas da liberdade: histórias de escravos e libertos na Bahia (1870-1910)* (Rio de Janeiro: Civilização Brasileira, 2014), p. 47.

⁴⁵ Celia Maria Marinho Azevedo, 'Irmão ou inimigo: o escravo no imaginário abolicionista dos Estados Unidos e do Brasil', *Revista USP*, 28 (Mar 1996), 96-109 (p. 103) <<https://doi.org/10.11606/issn.2316-9036.voi28p96-109>>.

⁴⁶ Term devised by Alonso, p. 205.

sugerido por Benjamin Constant, reproduz a proposta que Comte fizera aos republicanos franceses em 1848.⁴⁷

While positivism seemed concerned with fraternity and rationality, it had a natural racial hierarchy, which contradicted its moral base. As Bosi stresses, the Positivist school preached that the 'raça branca' is the 'mais intelectualizada',⁴⁸ which was supposed to rule and organise society.

The leading institution embracing this 'civilising' crusade was the Escola do Recife. Part of the Faculties of Law and Medicine, it contributed to new fields of knowledge: legal medicine, eugenics and criminology,⁴⁹ which influenced thinkers, politicians and writers. Its main focus was to determine what should be considered 'normal' or 'abnormal' in light of anthropology, evolutionism and biological determinism, an endeavour that grew in importance after the passing of two laws, the Lei Eusébio de Queirós (1850) and the Lei Áurea (1888), which respectively prohibited slave trafficking and abolished slavery. This significant change in society brought immigrant workers and the concept of race to the core of intellectual discussion. For Linhares da Silva, the post-1870 generation interpreted problems related to the black population according to 'uma categoria biológica imprópria ... Era necessário repensar o estatuto do negro ou ... tinham que transformar o escravo em negro'.⁵⁰ In this respect, the physician from the Escola de Medicina da Bahia, Raimundo Nina Rodrigues, promulgated Cesare Lombroso's polygenist theories, which identified black and mixed races as prone to degeneration and crime. Rodrigues also crossed boundaries between areas of knowledge such as medicine, psychiatry and criminology to further imprint in the public collective imagination that black people were predisposed to crime.⁵¹

The complex political and intellectual transitions of the 1870s affected Machado de Assis's life and oeuvre. Needing to recover from overwork and constant health problems, most notably epilepsy and stomach complaints, Machado and his wife went on a sabbatical to the city of Nova Friburgo, after which he wrote and published *Memórias Póstumas de Brás Cubas* (1880) in *Revista Brasileira*, a periodical which had the objective of disseminating scientific and scholarly ideals amongst intellectuals. Two years later, Machado collected short stories published in the periodicals *A Gazeta de Notícias* e *A Estação* in the volume *Papéis Avulsos* (1882), which, along with *Memórias Póstumas ...*, represent a rupture with the stylistic

⁴⁷ Alfredo Bosi, 'O positivismo no Brasil: uma ideologia de longa duração', in *Do positivismo à desconstrução: ideias francesas na América*, ed. by Leyla Perrone-Moisés (São Paulo: EDUSP, 2004), pp. 157-245 (p. 158).

⁴⁸ Bosi, 'O positivismo', p. 158.

⁴⁹ Mozart Linhares Silva, 'Direito e Medicina no Processo de Invenção do Anormal no Brasil', in *História, Medicina e Sociedade no Brasil* (Santa Cruz do Sul: EDUNISC, 2003), pp. 13-64 (p. 19).

⁵⁰ Silva, 'Direito e Medicina', p. 21.

⁵¹ Silva, 'Direito e Medicina', p. 33.

conventions of his previously published work and the introduction of Realism in Brazil. However, unlike his peers, the already mature Machado de Assis – contemplating his unusual upward social mobility and observing the snobbery of his fellow writers and intellectuals – used newly found scientific discoveries to problematise Brazilian society and its changing institutions. Writing from the perspective of a ‘dead author’ and satirising philosophical affiliations, his narrators expose the politics of the period, which was characterised by liberals who would not forgo their slave-owning privileges, and conservatives who spearheaded abolitionist movements, but were not ready to empower the black population or dissolve Brazilian monarchic structures. In *Papéis Avulsos* (1882), a sharper critique of the contradictions of liberalism, abolitionism and scientific theories becomes more prominent, as the subsequent chapters will show. Four of the stories included in the volume – ‘O Alienista’, ‘O Segredo do Bonzo’, ‘A Sereníssima República’ and ‘Verba Testamentária’ – are analysed in this thesis. Despite their specific literary characteristics, the stories reflect changes in political and intellectual thought in Brazil.

The novels that followed, *Quincas Borba* (1891) and *Dom Casmurro* (1899), also tackle the problem of science but somewhat more discreetly. While the former brings into question positivism and experimentalism through Quinca’s philosophy of *humanitismo*, the latter condenses this criticism in the character João Dias, a fake doctor who becomes the ‘agregado’ – a subordinate – of Bentinho (the ‘casmurro’ of the title). These works, as Schwarz and Pereira argue, are full of social criticism and represent the reversal of Machado’s romantic phase: instead of depicting the benevolent poor woman who becomes wealthy, here the old bourgeoisie fears the ‘menacing’ lower classes,⁵² especially women, slaves and the poor, who question their submissive positions. In his novels, Machado portrays suspicious first-person narrators hostile towards the women they believe want to take advantage of their social position. In his short story collections, the writer problematises not only men of science, but also professionals who must learn to live with their frustrations and setbacks. Machado’s characters include musicians, writers, military men and entrepreneurs. From the volume *Histórias sem Data* (1884), ‘O Lapso’ and ‘Conto Alexandrino’ continue to explore the themes introduced in *Papéis Avulsos* (1882) and critique theories of social medicine and race. It was perhaps Machado’s successful positions in publishing houses, newspapers and the civil service that allowed him to acutely observe social phenomena without sliding into belligerence.

⁵² Roberto Schwarz, *A Obra Aberta de Machado de Assis*, 2011 <<https://www.youtube.com/watch?v=m5y1Tc5sKN8&t=230s>> [accessed 3 December 2019].

3.3 SCIENCE MEETS LITERATURE: THEORY OR EXPERIMENTATION? (1880-1900)

The deluge of new intellectual, philosophical and scientific ideas was most widely represented by the Escola do Recife and its writers. Sílvio Romero adopted positivism and was influenced by Émile Zola's 'The Experimental Novel' to create and judge a poetic and novelistic style according to a 'scientific method'. While Romero argued for a new naturalism, which would take into consideration factors such as 'race', 'environment' and 'evolution', Tobias Barreto supported the adoption of German philosophy, and Clóvis Beviláqua embraced Comte's positivism and Spencer's social evolution. Although each member championed specific philosophers, the concepts of race and environment were principal topics of discussion – in the same way as in science.

Sílvio Romero, in his *A Literatura Brasileira e a Crítica Moderna* (1880), boldly asserted that there was no such thing as literary criticism in Brazil. Implicitly replying to Machado de Assis's 'A nova Geração', he argued that aesthetics, a criterion much praised by Machado, was insufficient for the analysis of literary works. He began, then, to associate literature with social conditions such as environment and climate. Although he attempted to create a method that would connect history and literature, his conclusions embraced and endorsed a rudimentary social determinism, which categorised each race according to different stages of 'evolution'. His conclusions are dubious: while Romero argued that Brazilians were a mix of a 'estragado e corrupto ramo da velha raça latina, a que juntara-se o concurso de duas das raças mas degradadas do globo, os *negros da costa* e os *peles vermelhas* da América',⁵³ he believed that the solution was the 'mescla afro-indiana e latina-germânica, provavelmente, se perdurar, como é possível, a imigração alemã',⁵⁴ which would 'improve' the biology of the nation.

Sílvio Romero concomitantly directed similar biological criticism towards the prose of Machado de Assis, which he considered not 'Brazilian enough', even though Machado himself bore the traces of a Brazilian 'sub-race'. Belittling the author's prose, Romero claimed that his literature lacked 'local colour', and what he judged to be the low quality of his writing was a 'defect' of his race:

⁵³ Sílvio Romero, *Poesia Popular do Brasil* (Rio de Janeiro: Typ. Laemmert & C, 1888), p. 354.

⁵⁴ Sílvio Romero, *Introdução à História da Literatura Brasileira* (Rio de Janeiro: Typographia Nacional, 1882), I, p. 17.

Machado de Assis não sai fora da lei comum, não pode sair, e aí dele, se saísse. Não teria valor. Ele é um dos nossos, um genuíno representante da sub-raça brasileira cruzada, por mais que pareça estranho tocar neste ponto... Ele gagueja no estilo, na palavra escrita, como fazem outros na palavra falada, disse-me uma vez não sei que desabusado num momento de expansão, sem reparar talvez que dava destarte uma verdadeira e admirável notação.⁵⁵

Romero's metaphor of the writer who stammers and hesitates illustrates his view of the mixed nature of Brazilian society and culture: a country still in the initial stages of evolution and trying to find an original voice.

Unlike Machado's supposedly 'stammering prose', the literature of the period, as the literary critic Luiz Nazario argues, uncritically embraced Silvio Romero's major tenets and promoted the idea that human beings were determined by their historical moment, race and environment. It also applied the theory of Natural Selection to society, representing life as a constant struggle in which the strongest would eliminate the weakest. Regarding these themes:

Predominava... na literatura naturalista, o instintivo e o fisiológico, as pulsões agressivas e violentas, um erotismo decadente e mórbido, com a exploração da homossexualidade, do lesbianismo, do incesto, da loucura hereditária, em personagens dominados por suas paixões e cuja vontade consciente mostrava-se incapaz de subjugar a natureza animal do homem.⁵⁶

Like the French writer Émile Zola, who argued for an aesthetic method in which the investigation of human social ailments would be akin to that of medical complaints, Brazilian naturalists such as Aluísio Azevedo, Júlio Ribeiro and Adolfo Caminha became keen social investigators. These authors searched for the presumed underlying causes of poverty, degradation and violence, and employed discoveries from physiology and pathology as justifications for what they perceived to be the excessive passion, crime and betrayal of the lower classes. Aluísio Azevedo, for example, in his *O Cortiço* (1890), employed social Darwinism to represent the struggles of a series of families who lived in a tenement. The author portrayed a range of characters, including immigrants, freed slaves and aspiring dealers, to show how deprived living conditions had the power to corrupt even innocent souls. Inspired by Zola's *L'Assommoir*, the 'cortiço' is an 'organic reality', an extension of the natural landscape⁵⁷ which becomes a negative allegory for the whole of Brazilian society:

⁵⁵ Silvio Romero, *História da Literatura Brasileira* (Rio de Janeiro: Garnier, 1902), III, p. 55.

⁵⁶ Luiz Nazario, 'Quadro histórico do Período do Naturalismo', in *O Naturalismo*, ed by J. Guinsburg & João Roberto de Faria (São Paulo: Perspectiva, 2017) pp. 14-39, (p. 30).

⁵⁷ Antonio Candido, 'De Cortiço a Cortiço' in *O discurso e a cidade* (São Paulo: Duas Cidades, 1995), pp. 123-152, (p. 134).

poor, of mixed-race and with very few opportunities for social mobility. Júlio Ribeiro followed in the same steps in his censored novel *A Carne* (1888), which tells the story of the wealthy young Lenita, who moves to the countryside and falls in love with an older divorced man. The quasi-biological language of the novel, with explanations regarding menstrual cycles⁵⁸ and racial and gender hierarchies, conveys the scientific mentality of the period which envisioned the white male patriarch as the most important social character. Adolfo Caminha embraced Nina Rodrigues' theory of racial degeneration in his *Bom Crioulo* (1895), portraying a tragic and interracial homosexual affair between sailors.

Scientific study and education at the turn of the century, devoid of laboratories and empirical centres of research, were based almost solely on theory. Since this knowledge was supported by few experiments, it was stripped of its context and open to the prejudice and arrogance of the colonial and oligarchical ideology. The naturalist Luis Agassiz, on a visit to Brazil in 1868, had already noted that Brazilian students of science – and their lecturers – were more interested in theoretical knowledge than in empirical research: 'Professors do not seem to understand that it is impossible to teach any of the physical sciences wholly or mainly from books.'⁵⁹ Agassiz went so far as to say that students did not consider it appropriate for their class to do any hard work themselves: 'As students of nature think it unbecoming a gentleman to handle his own specimens, to carry his own geological hammer, to make his own preparations, he will remain a dilettante in investigation.'⁶⁰ These comments are illuminating about members of the imperial elite who had slaves and servants to carry out their manual labour. Twenty years later, despite a renewed interest in medicine, faculties in Bahia and Rio de Janeiro still faced the same structural problems: little was invested in experimental research.

In 1883, the hygienist Dr Nuno de Andrade blamed the government for this precarious situation; he 'pointed to the need to improve the scientific basis of medicine and to free schools from restrictive government regulations. He even suggested that women should be allowed to attend.'⁶¹ Andrade's plea was not completely in vain – apart from his *avant la lettre* feminist demand – there was a discreet rise in investment in laboratories in the country, among which the *Laboratório de Fisiologia do Museu Nacional* and the *Instituto Bacteriológico* were the most important. Such institutions led to investigations in

⁵⁸ An example of the language of the novel: 'Com o tempo, os livros de fisiologia acabaram de a edificar; em Püss aprendera que a menstruação é uma muda epitelial do útero, conjunta por simpatia com a ovulação, e que o terrível e caluniado corrimento é apenas uma consequência natural dessa muda.' Julio Riberio, *A Carne* (São Paulo: Martin Claret, 1999), p. 4.

⁵⁹ Louis Agassiz, cited in Stepan, p. 31.

⁶⁰ Louis Agassiz, cited in Stepan, p. 31.

⁶¹ Stepan, p. 54.

experimental pathology.⁶² This was indeed part of a general trend among doctors from the medical faculty of Rio de Janeiro, who ‘buscavam sua originalidade e identidade na descoberta de doenças tropicais como a febre amarela e o mal de Chagas, que deveriam ser prontamente saneadas pelos programas *hygienicos*’.⁶³ Although the search for cures for epidemics seemed to be more focused on pure science, the hygienists’ contempt for the lower classes’ way of life and habits led to violent repression. The culminating point was the ‘Revolta da Vacina’ in 1904, in which the population refused to be vaccinated against what it saw as the ‘ditadura sanitária’ of Oswaldo Cruz.⁶⁴

The intense intellectual debates of the end of the century produced a ‘Brazilian Enlightenment’,⁶⁵ which intermingled biology, anthropology, criminology, culture and literature. However, this ideology did not cease to reiterate class, racial and sexual prejudices. The naturalist movement, in its overstated attempt to fuse literature and medicine, ironically reproduced the contradictions of Brazilian science of the period. Many novels took the racial and biological determinism of various scientific theories at face value – that is to say, other than theoretical – and reproduced and disseminated them with their still unproven and speculative conclusions through fictionalised prose. Often, this resulted in little experimentation in terms of language and style, simply mirroring the elites’ fear of losing their possessions and power.

An additional contradiction of the new Brazilian Enlightenment was that its proponents were deeply embedded in the economic and social divides of Brazil at the turn of the century: they represented an extremely restricted minority of people. As Machado de Assis noted in one of his chronicles, political decisions which affected intellectual and scientific problems were delegated to the minority who had access to instruction:

As instituições existem, mas por e para 30% dos cidadãos. Não se deve dizer: ‘consultar a nação, representantes da nação, os poderes da nação’; mas “consultar os 30% representantes dos 30%, poderes dos 30%.” A opinião pública é uma metáfora sem base, há só a opinião dos 30%.⁶⁶

From the writer’s critique, it is appropriate to conclude that Machado de Assis was not interested in applying restrictive scientific theories but in problematising the influence of these very same ideas on the general population.

⁶² Stepan, p. 54.

⁶³ Lilia Moritz Schwarcz, ‘Espetáculo da Miscigenação’, *Estudos Avançados*, 8.20 (1994), 137-152, (p. 144).

⁶⁴ Schwarcz, ‘Espetáculo’, p. 145.

⁶⁵ Simon Schwartzman, *A Space for Science: The Development of the Scientific Community in Brazil* (Pennsylvania: Pennsylvania State University, 1991), p. 74.

⁶⁶ Machado de Assis, *Obra completa*. (Rio de Janeiro: Editora Nova Aguilar, 1986), II, pp. 344 – 345.

Machado de Assis's critique of multiple political and intellectual affiliations of the period, combined with the criticism he suffered himself, provided him with a sensibility for 'liminal spaces' which, as Reginald Daniel argues, enhanced his 'ability to convey shades of meaning when discussing issues ranging from slavery to national literature, literary aesthetics, and modernity'.⁶⁷ It is within these spaces that the criticism of science and rationality plays a vital role.

At this time of change in Brazilian intellectual thought, Machado became a central figure in literary groups. Disseminating the poetry of 'Poetas Parnasianos' and commenting on works by Graça Aranha, Visconde de Taunay, amongst others, Machado – as an abolitionist himself – was an interlocutor for abolitionist thinkers and writers such as Joaquim Nabuco and André Rebouças. In mid-1895, Lucio de Mendonça created the Academia Brasileira de Letras – the Brazilian Academy of Letters – and named Machado de Assis president in recognition of his influence and experience in the literary meetings of the *Revista Brasileira*. In his inaugural address, Machado argued for a union of literature and culture beyond differing political affiliations.⁶⁸ In the same period, he was dismissed from his post at the Ministry due to political changes. This generated bitterness towards the Republic, which promoted cosmetic changes to the government without any real structural alterations. In the final years of his life, his last novels *Esaú e Jacó* (1904), *Memorial de Aires* (1908) and *Relíquias da Casa Velha* (1906) display a similar scepticism towards the monarchy and republicanism, mingled with a bittersweet longing that only increased with the death of his wife in 1904. Four years later, Machado would follow his wife in the 'estudo da geologia dos campos Santos'⁶⁹ and become one of the most admired writers in Brazil.

From this overview of Brazilian science and intellectualism from the perspective of Machado de Assis's life, it is possible to observe a complex, intricate and multifaced picture. Alongside a clear drive to understand and systematise social problems, intellectuals were still attached to a rudimentary determinism, social status and class. This contradiction was perceived by Machado, with his sceptical view of the socio-historical milieu of his country, who constructed novels and stories that challenge science and reason, and their relationship to the construction of truth. In the age of science, Machado's narrators, plots and fictional

⁶⁷ Daniel Reginald, *Machado de Assis: multiracial identity and the Brazilian novelist* (Pennsylvania: The Pennsylvania State University Publishing Press, 2012), p. 9.

⁶⁸ 'A Academia nasce com a alma nova, naturalmente ambiciosa. O vosso desejo é conservar, no meio da federação política, a unidade literária. Tal obra exige, não só a compreensão pública, mas ainda e principalmente a vossa constância.' Machado de Assis. *Discurso de Machado de Assis* (1897). <<http://www.academia.org.br/academia/discurso-de-machado-de-assis>> [accessed 11 December 2019].

⁶⁹ Machado de Assis, *Dom Casmurro* (São Paulo: Martin Claret, 1999), p. 23.

structures are a constant reminder that truth, along with knowledge, is always open to discussion and questioning.

4. DOUBLE-BIND: THE POETICS OF UNREASON

Considering Machado de Assis's style and biography, it is necessary to return to the notion of the 'double-bind' and what Machado calls the 'scientific process'. Machado's epistemological representation of the 'double-bind' of reason and unreason involves ontological scrutiny of science and knowledge, and simultaneously a structural examination of the narrative possibilities at a moment when the genre became a reification of scientific theories in Brazil. The product of the author's search for the origins of science in Brazil is, therefore, scientific and experimental; in other words, it is marked by anachronism, fragmentations, irony and allegory, which characterise the critique of the newly arrived, imported science in Brazil. This complex picture shows an indirect approach to science and medicine, and an autodidactic instruction to question authoritarian and contradictory truths regarding education, power and political change.

Machado provides no solution to social problems; rather, he aggravates and heightens their scope. While this is clear in short stories such as 'O Alienista' (*Papéis Avulsos*, 1882), in which Doctor Bacamarte's enterprise to find a cure for madness ends up confining the whole population of the village of Itaguaí in a mental asylum, scientific interference is not as apparent in the case of the novels. However, there is an appropriation of the Brazilian 'man of science', one who – as previously shown – relies on theory rather than empirical knowledge, a figure who embodies social prejudices and contempt for the lower classes. As a social and literary critic, Machado de Assis fractures the traditionally linear plots of realist narratives and introduces incomplete and fragmented chapters peppered with illusions of grandeur and fantastic elements. Thus, scientists become sterile individuals whose social role is diluted between inefficient politicians and useless legislators.

Through close readings and a literary and historical contextualisation of Machado de Assis's work and heightened historical and artistic sensibility, this thesis seeks to understand three issues. First, it investigates how the double-bind of madness and science, reason and unreason, is portrayed in Machado's short stories. Second, it explores how the aesthetic and evolutive narrative linearity is broken by the manipulation of anachronistic techniques, dislocated temporal events or facts, and the adaptation of fantastic and uncanny

elements, such as talking animals or mad scientists. The concept of the uncanny referred here to is both a style of writing and a way of thinking: Machado employs ‘something that is not explicable through known facts’⁷⁰, for example talking animals and absurd diseases and cures, with a view to displace social and political concerns, such as racialised aspects of scientific theories and institutional policies and laws directly inspired by them. Reflecting on Sigmund Freud, Tzvetan Todorov also associates the uncanny to events in the past, in the same way that Freud characterises the uncanny as adult experiences that unconsciously projects and repeats earlier aspects of life or earlier psychic stages.⁷¹ In other words, the uncanny is a strange, eerie and weird return of a repressed memory, event or feeling. In Machado’s case, the thematic use of the uncanny forces readers to think about what is consciously or unconsciously repressed in scientific theories and in their prerogative of order and progress. Third, it examines how Machado configures a new Brazilian Realism – ironic, sceptical and allegorical – making him a precursor of (post-)modernism, one which represents an ideological scepticism towards all-encompassing theories and narratives. In a way that seems to be foreshadowing Jean-Francois Lyotard version of postmodernism, which represents an ‘incredulity towards metanarratives’⁷². Machado, instead, turns his incredulity towards the promises of all-inclusive scientific, orderly and disciplined society. This research adds to the current existing scholarship the fact that Machado de Assis’s work was hyper-aware of the scientific issues of his period and that he tackled such issues in his fictional work through the various ways in which his stories play with ideas of linear progress, experimentalism, biological determinism and advancement. Moreover, this thesis emphasises how Machado’s short fiction configures an ethically committed poetics, which empowers the agency of racial and economic groups and even species that were ostracised and criminalised by his peers, demonstrating that literature, science and political projects are subject to historical, political and social contingencies. To this end, this thesis will be divided into four chapters that explain and dissect scientific theories and generate a formal approach to each.

The first chapter, ‘The Quixotic Science: Regressive Progress’, analyses the novella ‘O Alienista’ (1882) and functions as a paradigm to the whole thesis. After briefly describing how Machado manipulates allegory, satire and irony, it examines how the story exposes the

⁷⁰ Tzvetan Todorov, *The Fantastic: a structural approach to a Literary Genre*, trans. by Richard Howard (Ithaca, NY: Cornell University Press, 1975), p. 42.

⁷¹ Sigmund Freud, ‘The Uncanny’ (1919) <<https://web.mit.edu/allanmc/www/freud1.pdf>> [Accessed 05 April 2022].

⁷² Jean-Francois Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. by Geoff Bennington and Brian Massumi (Manchester: Manchester University Press, 1984), xxiv.

relationship between politics and science via its intertextuality with *Cours de Philosophie Positive* (1830) by Auguste Comte and *Don Quijote de La Mancha* (1605). While the novella allegorises the progressive philosophy of history and science proposed by Comtean positivism, the narrator emulates Cervantes's plurality of voices by implicitly linking Bacamarte, the alienist of the title to Don Quijote. These two opposing movements reveal the contradictions of positivist philosophy in Brazil and question the notion of a linear and evolutionary view of history. The interruption of linear time and Cartesian space is full of irony, since Bacamarte's attitudes cause mistakes, riots and violence, they contradict his academically superior position. At the same time, the chapter shows how 'O Alienista' explores questions of colonisation, social control and the classification/hierarchisation of individuals, themes that recur in Machado's short stories about science.

The second chapter, 'Social Laboratories: Colonial experiments', examines the short stories 'A Sereníssima República' (1882) and 'Idéias de Canário' (1899). Through the scrutiny of uncanny elements, such as talking animals and delirious scientists, the analysis argues that the narrators reframe colonisation as a scientific experiment. Engaging with intellectual ideals of the period, the protagonists Cônego Vargas and Macedo dedicate themselves to the study of anthropomorphic features in spiders and birds, providing a naturalist allegory for the intellectual and cultural history of Brazil. Recreating the tradition of the fable in a then-contemporary context, Machado challenges one of the most important political reforms of the nineteenth century, the Lei Saraiva (1881) – which changed electoral laws – and re-signifies the country's national history through the idea of experimentalism. Allegorically mobilising elements that recall the beginnings of science in Brazil, such as the exploration of Brazilian animals and distinctive specimens, the narrators expose the colonial legacy of the country, along with its history of inequalities and corruption.

The third chapter, 'Familiar Theories: Exotic lands', analyses the stories 'O Segredo do Bonzo' (1882) and 'O Conto Alexandrino' (1884). These narratives, disguised as tales from 'exotic' lands (Japan, Ancient Greece and Egypt), challenge disciplinary power structures through uncanny situations: nose removal surgery, vivisection and talking animals. In this case, the uncanny and exotic temporal and spatial structures are used as critical tools to test scientific theories related to the hierarchisation of race, a dominant theory in Brazil in the nineteenth century. Machado questions the white, Eurocentric characteristics of these theories, especially Nina Rodrigue's recently published books, and challenges racially prescribed social roles. The temporal paradoxes serve to challenge the supposed philosophical and moral advances of these theories.

‘Social Medicine: Strange Diseases’, the fourth chapter, examines the dialectical relationship between doctors and social abnormalities. In ‘Verba Testamentária’ (1882) and ‘O Lapso’ (1884), Dutch doctors examine strange and rare illnesses in which patients lose control of their behaviour. While Nicolau becomes violent toward himself and others when he realises his peers are wealthier and more successful than he is, Tomé Gonçalves does not understand or practice the concept of ‘paying’. Both doctors are facetious creatures, either unsuccessful in their treatments – such as the unnamed Dutch brother-in-law and doctor from ‘Verba Testamentária’ – or unpaid for their professional services, as Dr Halma from ‘O Lapso’. The humorous accounts critique the nineteenth-century philosophy of *medicina social* or *higienismo*, which aimed to organise society and control behaviours. Moreover, the narrators of these stories, by playing with fragmentary and incomplete historical accounts, connect social medicine to the rise of capitalist ideas and values.

The examination of Machado de Assis’s work through the lenses of science demonstrates how intellectual, racial, class and gender inequalities permeate notions of a ‘universal’ science but one in which Europe is the arbiter of the universal. In this sense, Machado de Assis’s work, by challenging his own intellectual and cultural environment, becomes anti-racist, anti-elitist and anti-pedantic, in such a way that his works question the origins of scientific thought in Brazil rather than merely endorsing them. The stories selected here function as a space of visibility in which the progressive promise of Brazilian intellectualism is set against the unequal social landscape of the late nineteenth century. Although this thesis could have included other stories and fictional works, I have decided to focus on stories in which the play between reason, unreason and nineteenth-century scientific theories is more apparent.

Machado de Assis’s complex literary portrayal of ‘scientific reason’ as unreason stems from his personal and intellectual engagement with his socio-political context. Machado understood the mechanisms of power of state bureaucracy and social order via an Afro-Brazilian ‘discursive practice’, as the Afro-Brazilian literature specialist, Eduardo Duarte terms it.⁷³ Duarte describes a personal and political authorship that, added to the literary perspective,⁷⁴ allows Machado to recognise and reject discriminatory aspects of scientific presuppositions supported by the Escola do Recife and the *positivistas* in Brazil from the 1870s onwards. Embracing a transdisciplinary point of view, this thesis builds on the traditional literary analysis of Antonio Candido, Roberto Schwarz and Alfredo Bosi by

⁷³ Eduardo de Assis Duarte, ‘Literatura Afro-Brasileira Elementos para uma Conceituação’, *Acervo*, 22. 2 (2009), 77-90, (p.82).

⁷⁴ Duarte, p. 83.

combining it with the socio-historical approach of Michel Foucault, Jurandir Freire Costa and Roberto Machado, among others. By adding the history of Brazilian science to traditional literary theory, I seek to picture Machado de Assis's short fiction as a multifaced web in which literary consciousness itself deconstructs the colonial project of diminishing and/or victimising autochthonous ways of portraying the world and experiencing reality.

I. THE QUIXOTIC SCIENCE: REGRESSIVE PROGRESS

POSITIVISM: THE BRAZILIAN SCIENTIFIC RELIGION

In 1874, Viscount Arthur de Gobineau, who had been the French ambassador to Brazil from 1869 to 1871, remarked that ‘não existe nenhuma família brasileira que não tenha sangue negro e índio nas veias; o resultado são compleições raquíticas ... desagradáveis aos olhos’.⁷⁵ Around a decade later, the intellectual and literary critic Sílvio Romero argued that ‘todo brasileiro é um mestiço, quando não no sangue, nas idéias. Os operários deste fato inicial tem sido: o negro, o índio, o meio físico e a imitação estrangeira’.⁷⁶ Though articulated in different circumstances and from different perspectives, the two statements embody the socio-political project of the Brazilian intelligentsia at the end of the nineteenth century: to understand and improve the ‘mixed inferiority’ of Brazilian racial composition and its putatively inextricable linkage to thought. The political and philosophical framework that helped intellectuals of the period to envision such a development was Comtean positivism, a wide-ranging historical meta-narrative that built on Enlightenment principles to demonstrate how modern European society had overcome primitivism and superstition through rationality and science. For the sociologist Myrian S. Santos, ‘a doutrina que pregava a evolução histórica do conhecimento até a sua perfeição’⁷⁷ appealed to the patriarchal elite of the period because it reflected its hierarchical and family-oriented aversion to radical political transformation. Of course, there is an underlying paradox – this evolution depended on the grafting or ‘mixing’ of European ideas with native Brazilian ones, which conflicted with the desire for racial purity.

Positivism in Brazil depended on a thorough reframing and reworking of the *oeuvre* of the French philosopher Auguste Comte (1798–1857), who sought to systematise a philosophy of science in his six-volume *Cours de philosophie positive* (1830–42). According to Evaldas Nekrasas, Comtean positivism rejects metaphysics and theism in a search for an experimental, observational, mathematical and logical truth. It also strives for a presumably and ideally ‘value-free’ unity of natural and scientific knowledge, which constitutes ‘the

⁷⁵ Ricardo Alexandre Sousa, ‘A extinção dos brasileiros segundo o conde Gobineau’, *Revista Brasileira de História da Ciência*, 6.1 (2013) 21–34 (p. 22).

⁷⁶ Sílvio Romero, *História da literatura brasileira*. <<https://www.literaturabrasileira.ufsc.br/documentos/?action=download&id=93052#CAPÍTULOVII>> [Accessed 09 July 2020] (para 14).

⁷⁷ Myrian S. Santos, ‘Os Museus Brasileiros e a Construção do Imaginário Social’. *Soc. Estado*.15.22 (2000), 271–302, (p. 294).

main force of social progress'.⁷⁸ Michel Bourdeau argues that Comte's positivism entails explicit political consequences,⁷⁹ since it suggests a reorganisation of society which follows 'the law of the three stages',⁸⁰ summarised thus by Alfredo Bosi: the 'theological or fictitious' stage is associated with the Middle Ages (until 1300); the 'metaphysical or abstract' started with the Renaissance (1600) and lasted until 1800; and the scientific stage started from 1800, coinciding with the beginning of the Enlightenment. The scientific, or positive 'fora propiciada pelas duas revoluções modernas, a política (francesa) e a industrial (inglesa), mas só a filosofia positivista viera inaugurá-la'.⁸¹ According to Comte, 'from the study of the development of human intelligence, in all directions and through all times, arises ... a great fundamental law' of 'historical experience':

The law is this: – that each of our leading conceptions, each branch of our knowledge, – passes successively through three different historical conditions: the Theological, or fictitious; the Metaphysical, or abstract; and the scientific, or positive ... In the theological state, the human mind, seeking the essential nature of beings, the first and final causes ... of all effects ... supposes all phenomena to be produced by the immediate action of supernatural beings. In the metaphysical state, which is only a modification of the first, the mind supposes ... abstract forces, veritable entities ... inherit in all beings, and capable of producing all phenomena ... In the final, the positive state, the mind ... applies itself to the study of their laws – that is, their invariable relations of succession and resemblance. Reasoning and observation, duly combined, are the means of this knowledge.⁸²

Comte's evolutionary and progressive approach to the history of human cognition roughly aligns the three 'historical conditions' with historical periods. Thus, Comte intertwines human intelligence with methodological approaches and science, creating a dynamic sociology of emancipation. This law of the three stages belongs to an enlightened and optimistic meta-narrative of ongoing historical progress. Although it has been largely disproved by the events of the twentieth century and critiqued by philosophers including Theodor Adorno and Walter Benjamin, this meta-narrative was dominant in Brazil, Europe and North America at that time.⁸³

⁷⁸ Evaldas Nekrasas, *The Positive Mind: Its Development and Impact on Modernity and Postmodernity* (Budapest & New York: Central European University Press, 2015), p. 1.

⁷⁹ Michel Bourdeau, 'Auguste Comte', in *The Stanford Encyclopedia of Philosophy* (Summer 2018 Edition). <<https://plato.stanford.edu/archives/sum2018/entries/comte/>> [Accessed 11 May 2020].

⁸⁰ Michel Bourdeau & Mary Pickering, *Love, Order and Progress: Politics of Auguste Comte* (Pittsburgh: University of Pittsburgh Press, 2018), p. 4.

⁸¹ Bosi, 'O positivismo', p. 158.

⁸² Auguste Comte, 'Account of the aim of this work – View of Nature and Importance of the Positive Philosophy' in *The Positive Philosophy of Auguste Comte*, trans. by Harriet Martineau (Cambridge: Cambridge University Press, 2009), pp. 2, 3.

⁸³ Bourdeau, M., 'Auguste Comte'.

Once Comte had concluded his six-volume *chef-d'oeuvre*, his attention turned to sociology and politics. The four-volume *Système de politique positive* (1851–54) elaborates a secular ‘religion of humanity’, which focusses on government, social order and morality, or ‘ordem e progresso’, the ideal printed on the Brazilian Republican flag drawn by the positivist Décio Villares (1951–1931) in 1889. Comte’s humanist ‘religion’ included the ‘feudal-Catholic’ idea of faith and devotion, which he believed to be essential, despite being part of the theological stage, since it expressed a ‘complete harmony peculiar to human life, in its collective as well as in its individual form ... [it] gives a natural harmony to the soul exactly analogous to that which health gives to the body’.⁸⁴ For Comte, the ‘spiritual power’, exercised by priests and present in the theological and metaphysical stages, should be retained but replaced by something else in the ‘new order’. Since science was not only ‘the rational basis for [human] action upon nature, but also as the spiritual basis of social order’,⁸⁵ the new ‘spiritual power’ should then be transferred to scientists. The spiritual turn of Comtean positivism attracted only a minority of his European disciples, including Pierre Lafitte (see below) and his *lafitas*,⁸⁶ while the lexicographer Paul-Émile Littré rejected these aspects of Comte’s thinking and created a heterodox, purely scientific trend of positivism which was later named after him – *litreísmo* – and which arguably became the dominant strain of European positivism.

In Brazil, however, the spiritual and religious faction would retain its popularity and in the 1870s, positivism spread rapidly.⁸⁷ Nevertheless, references to Comtean positivism started as early as the 1840s in mathematical and biological studies.⁸⁸ In the decades that followed, the professor of the Military School, Benjamin Constant Botelho de Magalhães, started discussing Comte’s work along with physicists from the Escola de Medicina of Bahia and Rio de Janeiro. The medical doctor Luis Pereira Barreto defended his thesis with a positivist preface and the sociologist Francisco Antonio Brandão Júnior published A

⁸⁴ Auguste Comte, *System of Positive Polity. Second Volume, or the Abstract Theory of Human Order* (London: Longmans, Greens & Co, 1875), p. 9.

⁸⁵ Bourdeau, M., ‘Auguste Comte’.

⁸⁶ Angela Maria Alonso, ‘De positivismo e de positivistas. Correntes positivistas brasileiras e o caso Pereira Barreto’. *XIX Encontro Anual da ANPOCS GT22 Teoria Política e História das Idéias*. (CEBRAP: Sociologia, USP, 1995), pp. 2-20 (p. 39) <<https://www.anpocs.com/index.php/encontros/papers/19-encontro-anual-da-anpocs/gt-18/gt22-13/7708-angelaalonso-positivismo/file>> [accessed 13 May 2020]

⁸⁷ Angela Alonso claims that Positivism after 1870s was a ‘coqueluche nacional’ – which means that most Brazilian intellectuals were engaging with its concepts and principles. Alonso, *De positivismo*, p. 9.

⁸⁸ The mathematicians José P. d’Almeida, Antonio de Campos Bellos and Agostinho Roiz Cunha studied with Comte between 1832 and 1840. In 1844, Justiniano da Silva Gomes defended the thesis *Plano e Método de um curso de Fisiologia*, inspired by Comtean positivism. In José Lourenço Rocha, ‘A educação matemática na visão de Augusto Comte’ (unpublished doctoral thesis, Pontifícia Universidade Católica do Rio de Janeiro, 2006) available at PUC- Coleção digital <<https://www.maxwell.vrac.puc-rio.br/colecao.php?strSecao=resultado&nrSeq=9403@1>> [accessed 13 May 2020], p. 110.

Escravidão no Brasil (1865),⁸⁹ the first work in the country to apply the law of the three stages to social phenomena, linking social and racial evolutive states. These examples demonstrate that positivism helped to ground scientific studies and create a hierarchy of historical and racial categories. Moreover, a militant and vocal group, led by Miguel Lemos and the mathematician Teixeira Mendes⁹⁰ – both firm believers in the ‘religion of humanity’ – spread Comte’s spiritual ideas through magazines, newspapers and conferences. Although Professor Antônio Carlos de Oliveria Guimarães sought to unite the dissident voices through the creation of the Brazilian Positive Society (1876), Lemos and Mendes continued their secular and scientific religious quest, proceeding to study in France with Pierre Laffitte, Comte’s disciple and the principle proponent of the humanitarian religion.⁹¹ After their return to Brazil, in 1881, they founded the ‘Apostolado Positivista’ with the clear aim of disseminating positivism’s moral aspect. José Lourenço Rocha highlights that this split in the group shook the foundations of positivism in Brasil: ‘de uma filosofia da ciência, passou a ser visto como um sistema filosófico mais geral ... uma concepção de mundo, aplicável aos problemas da natureza e da sociedade humana’.⁹² Although the Society’s members were divided between those who exclusively followed Comte’s scientific ideas (the *litreistas*) and those who were also socially and spiritually engaged (the *lafitas*), positivism continued to influence political decisions. With charisma and persuasion, the *lafitas* Lemos and Mendes adapted their discourses to Brazilian reality⁹³ and became more highly influential in various intellectual movements.

According to Michel Bourdeau and Mary Pickering, positivism was relevant for Latin America and Brazil because it gave ‘the rising middle class a vision of orderly economic, social, and political modernisation and a liberation from their Catholic and colonial past’.⁹⁴ Further, historian Rafael Reis P. B. de Mello highlights that the Apostolado was instrumental not only in the abolitionist movement but also in republicanism and the separation of church and state. However, as the sociologists Paulo Arantes⁹⁵ and Aurélio

⁸⁹ Alonso, A., *De positivismo*, p. 9.

⁹⁰ João Camilo de Oliveria Torres, *Positivismo no Brasil* (Brasília: Edições Câmara dos Deputados, 2018), p. 43.

⁹¹ Alonso, A., *De positivismo*, p. 7.

⁹² Rocha, J. L., *A educação matemática*, p. 109.

⁹³ Rafael Reis Pereira Bandeira Mello, ‘O Apostolado Positivista e o projeto da Ditadura Republicana (1889-1891)’ (unpublished doctoral thesis, Universidade Federal do Rio de Janeiro, 2011), pp. 154-157.

⁹⁴ Bourdeau & Pickering, p. 10

⁹⁵ ‘Acometidos por um secreto horror à nossa realidade (continuava o ensaio em questão), os positivistas no Brasil foram sobretudo espíritos “negativos”... Todos eles grandes leitores, viviam encaramujados em suas bibliotecas... Dáí o enorme e duradouro prestígio do positivismo no Brasil, pois funcionava no limite como um *isolador* (também ‘isolavam’, os estudos aprofundados de matemática, ou a publicação em alemão de uma folha filosófico-política em pleno sertão nordestino), por certo o gesto mais apropriado para se colher a flor amarela da Indiferença, um gesto porém que tinha a virtude de destacar do meio acanhado e fazer planar sem amarras sobre ele uma espécie de aristocracia do nada — sem prejuízo desses *happy few* servirem os amigos quando

Buarque de Holanda⁹⁶ emphasise, although it was essentially a European intellectual and philosophical project, like many other European concepts it was transplanted to the Luso-Brazilian imperial court with little regard to its historical particularities. Arantes contends that positivism was the privilege of a happy educated few, isolated in their respective intellectual groups, while Buarque suggests that the positivists nourished a certain ‘secreto horror à nossa realidade’.⁹⁷ Whatever the case, positivism in Brazil formed the basis for various intellectual and scientific movements that sought to modernise the country, with the common ground of a Europeanised notion of progress and evolution which tended to dismiss local history, racial patterns and locally produced knowledge.

Politically and socially, positivism pervaded nineteenth-century Brazil. In government, as Robert Nachman has remarked, it affected ‘planning for development and industrialisation, modernising and reforming agriculture, expanding education, controlling immigration and offering social legislation’.⁹⁸ Positivism also guided medicine and ‘public hygiene’,⁹⁹ providing guidelines for science and public policies. In Foucauldian terms, it became a ubiquitous modern disciplinary technology that strove to regulate human life and the human body:

discipline tries to rule a multiplicity of men to the extent that their multiplicity can and must be dissolved into individual bodies that can be kept under surveillance, trained, used, and, if need be, punished. And that the new technology that is being established is addressed to the multiplicity of men ... to the extent that they form ... a global mass that is affected by the overall process characteristic of birth, death production, illness, and so on.¹⁰⁰

After Foucault, we can retrospectively read positivist science in Brazil as a particular form of biopolitics, associated not only with a liberal form of government but also with what Thomas Lemke describes as ‘the emergence of a specific political knowledge and new disciplines’.¹⁰¹ Developed within the fields of medicine and law, positivism not only purported to offer a progressive path to modernity, but also to be a practice that disciplined bodies and regulated the mechanisms of life and death. According to historian Lilia

necessário.’ Paulo Arantes, ‘Positivismo no Brasil: breve apresentação do problema para um leitor europeu’, *Novos Estudos Cebrap*, 21 (1988), 185-94 (p. 190).

⁹⁶ Sérgio Buarque de Holanda, *Raízes do Brasil* (Rio de Janeiro: José Olympio, 1936), p. 180.

⁹⁷ Holanda, p. 180.

⁹⁸ Robert Nachman, ‘Positivism, Modernization and the Middle Class in Brazil’, *The Hispanic American Historical Review*, 57. 1 (1977), 1-23, p. 14.

⁹⁹ Nachman, p. 17.

¹⁰⁰ Michel Foucault, *Society Must be Defended: Lectures at the Collège de France, 1975-76*, trans by David Macey, (New York: Picador, 2003), pp. 242, 243.

¹⁰¹ Thomas Lemke, *Biopolitics: An Advanced Introduction*, trans by Eric Frederick Trump (New York and London: New York University Press, 2011), p. 11

Schwarcz, the ‘maturation of certain national centres of education, such as ethnographic museums, schools of law and medicine, institutes of history and geography ... assumed their own identities and established alternative models of social and racial analysis’,¹⁰² which eventually became a national project of emancipation for the country.

One particular area of research that guided these centres was the study of the racial composition of the country. Influenced by Edmund Spencer’s and Charles Darwin’s theories of social and biological evolution, Francis Galton’s eugenics, Bénédict Augustin Morél’s degeneration theory and Cesare Lombroso’s criminology, Brazilian positivist scientists of the late nineteenth century set their sights on finding a ‘cure’ for the social, material and physical problems they witnessed. However, as Myriam Santos¹⁰³ argues, instead of examining the particular origins or constitutive processes of social problems, positivists tended to approach them through a sociologically and politically instrumentalised understanding of biology: the eradication of ‘primitive’ cultures and the introduction of a paradoxical ‘racial democracy’ that would gradually eliminate Amerindian and African roots. As Santos notes, this specious biological reasoning guaranteed that ‘as diferenças entre raças serão resolvidas ... com a celebração do mestiço ... que se embranquece e elimina a herança negra. Há também neste mito uma desvalorização do passado e do presente em função de uma realização futura.’¹⁰⁴ In Brazil, European scientific theories fuelled a contradictorily biopolitical national project of *mestiçagem* as whitening, which would presumably ‘free’ the country of the dangers of degeneracy, backwardness and savagery.

However, while politicians and intellectuals for the most part focused on scientific ‘ordem e progresso’, inspired by Comte’s theories, the literary portrayal of the sciences that Machado de Assis offered at the same time was significantly different. Rather than portraying Western scientists as secular saviours, he populated his texts with insane doctors, failed experiments and lost monographs. When examining why Machado chose to respond to positivism with both suspicion and ambiguity, several key factors should be considered.

One factor is the author’s critical engagement with scientific theories, especially positivist theories, which were published in newspapers and periodicals from 1881. According to historian Moema Rezende de Vergara, scientists sought to popularise their

¹⁰² Lilia Moritz Schwarcz, *The Spectacle of the Races: Scientists, Institutions and the Race Question in Brazil 1870 – 1930*, trans by Leland Guyer (New York: Hill and Wang, 1999), p. 11.

¹⁰³ Santos, M., p. 295.

¹⁰⁴ Santos, M., p. 295.

ideas through accessible and entertaining publications in newspapers and periodicals.¹⁰⁵ Such endeavours, according to the physicians and intellectuals of the time, were a necessity and a ‘dever imperioso para as nações que compreendem e acompanham os progressos reais da civilização’.¹⁰⁶ The nineteenth-century French physiologist Luiz Couty also stressed that the widespread dissemination of natural sciences within a larger but still vague framework of progress would solve social problems. However, as the historian Daniela Magalhães Silveira argues, in her discussion of Machado’s collection *Papéis Avulsos* (1881), science was at the same time a silencing discourse, in which ‘a linguagem científica servia para justificar medidas políticas e invalidar qualquer outra opinião que não coubesse naquele padrão de pensamento’.¹⁰⁷ Faced with the ambiguous role of science in society and the ideology of progress at that period, Machado de Assis’s stories and narrators were complex and contradictory, soliciting questions and debate rather than presenting a single, messianic answer.

Machado wrote explicit critiques of Comtean Positivism in his output as a journalist. After writing ‘O Alienista’, he published a ‘crônica’, an editorial commentary on the *Zeitgeist*, published in *A Gazeta de Notícias* on 15 August 1883 under the pseudonym Lélío. In an interesting echo of the manufactured chronicles of Quijote, Machado de Assis cited a fictional quotation from Comte’s *Catecismo Positivista* (1852), as noted above, the philosopher’s main ‘religious’ work. As Daniela Calipo argues, Machado’s chronicle was a humorous reply to the newspaper *O Corsário*, which, on 22 March of the same year, published an extensive article about Comte’s life and oeuvre. In his chronicle, Machado – disguised as Lélío – argues for the public institutionalisation of two days of weekly rest:

Um articulista anônimo, tratando há dias do uso da folga acadêmica nas quintas-feiras, escreveu que Moisés e Cristo só recomendaram um dia de descanso na semana, e acrescenta que nem Spencer nem Comte indicaram dois. Nada direi de Spencer; mas pelo que respeita a Comte, nosso imortal mestre, declaro que a afirmação é falsa. Comte permite (excepcionalmente, é verdade) a observância de dois dias de repouso. Eis o que se lê no Catecismo do grande filósofo: “O dia de descanso deve ser um e o mesmo para todas as classes de homens. Segundo o judaísmo, esse dia é o sábado; — e segundo o cristianismo, é o domingo. O positivismo pode admitir, em certos casos, a guarda do sábado e do domingo, ao mesmo tempo. Tal é, por exemplo, o daquelas instituições criadas para a contemplação dos filhos da Grã-Bretanha, como sejam, entre outras, os parlamentos de alguns países, etc. E a razão é esta. Sendo os ingleses, em geral, muito ocupados,

¹⁰⁵ Moema de Rezende Vergara, ‘Contexto e Conceitos: História da ciência e “vulgarização científica” no Brasil do século XIX’, *INCI*, 33.5 (2008), <http://ve.scielo.org/scielo.php?script=sci_arttext&pid=So378-18442008000500004&lng=es&nrm=iso> [accessed 22 September 2022] (para 19 of 48)

¹⁰⁶ Anonymous, cited in Rezende Vergara.

¹⁰⁷ Daniela Magalhães da Silveira, *Fábrica de Contos* (São Paulo: Editora UNICAMP, 2012), p. 32, 33.

pouco tempo lhes resta para ver as coisas alheias. Daí a necessidade de limitar os dias de trabalho parlamentar dos ditos países, a fim de que aqueles insulares possam gozar da vista recreativa das mencionadas instituições. (Cat. Posit., página 302)¹⁰⁸

In his parody of Comtean positivism, Machado deploys hyperbole to critique both its pretentious language and its confused mix of historical secular and religious terms – Spencer and Comte vis-à-vis Moses and Christ. He also satirised the ‘religious’ aspect of positivism, mocking its disciples’ devotion to Comte as the ‘immortal master’. In another ‘crônica’ published six years later on 19 July 1888 under the pseudonym ‘Boas Noites’, Machado raises the same themes while ironically discussing the positivist calendar (1849), Comte’s attempt to improve the Gregorian calendar by replacing it with one containing 13 months of 28 days.¹⁰⁹ Comte named the months after masters of the humanities (Moses, Homer, Dante, Shakespeare, etc.) and paid homage to fictitious and religious characters in the names of the weeks (Prometheus, Hercules, Solomon, Mohamed, etc). Both chronicles ironically discuss matters of time and state that are particularly present in ‘O Alienista’.

Another factor that could explain Machado’s critical, literary response relates to what the critics Roberto Ventura¹¹⁰ and Ana Cristina Dubeux Dourado¹¹¹ identify as the author’s acute understanding of science’s power dynamics within Brazilian society at the time. They believe that Machado did not subscribe to redemptive scientific theories because the Brazilian historical, economic and cultural milieu was deeply unequal: more than seventy per cent of the population could neither read nor write, let alone understand the details of scientific methods; free and independent labour was non-existent; and intellectual and material wealth was concentrated in the hands of a minority. As Dourado puts it, Machado observed a series of barriers to the flourishing of scientific ideas, such as:

as heranças dos séculos de escravidão, assim como a estrutura de distribuição da propriedade no Brasil, seriam os limites mais evidentes contra a imitação, a partir de modelos europeus e norte-americanos, das regras disciplinadoras das relações de trabalho e das reformas urbanas propostas por higienistas, juristas e intelectuais.¹¹²

¹⁰⁸ Machado de Assis, *Crônicas Completas* (São Paulo: Poeteiro Editorial, 2014).

¹⁰⁹ Matthew Wilson, ‘On the Material and Immaterial Architecture of Organised Positivism in Britain’, *Architectural Histories* 3.1 (2015), 1–21. <[10.5334/ah.cr](https://doi.org/10.5334/ah.cr)>.

¹¹⁰ ‘Descrente do caráter redentor das idéias e da eficácia das reformas sociais, Machado ironizou o naturalismo, o cientificismo, o abolicionismo e o republicanismo’. Roberto Ventura, *Estilo Tropical: História Cultural e Polêmicas Literárias no Brasil* (São Paulo: Companhia das Letras, 2000), p. 106.

¹¹¹ Ana Cristina Dubeux Dourado, ‘Machado de Assis e Emile Zola: Comparações em torno das teses evolucionistas, sua transposição ao terreno social e sua expressão literária’ (unpublished doctoral thesis, Universidade Federal de Pernambuco, 2007) <<https://repositorio.ufpe.br/handle/123456789/7432>> [accessed 15 July 2020], pp. 16, 17.

¹¹² Dourado, pp. 16, 17.

Silveira and Dourado's study demonstrates that Machado was aware of the paradoxical social and cultural scenario surrounding scientific debate. However, a close reading of Machado's stories about science reveals that the writer was also interested in experimenting with two literary devices that might be considered European 'imitations': allegory and irony. In his analysis of *Dom Casmurro* (1899), the critic Sergio Rouanet finds Machado's allegorising so ubiquitous that he likens it to the gaze of Medusa, 'mineralising' life into concrete objects of thought.¹¹³ Rouanet's assertion combines the Greco-Roman meaning of the word 'allegory', a 'prudent encoding'¹¹⁴ and a 'continued metaphor',¹¹⁵ with the pseudo-biological, suggesting that Machado's allegories fulfil an epistemological function, that is, he constructs fiction as an object of knowledge, even while paradoxically undermining the reality status of that object.

Aided by embedded allegorical games of signification, Machado's 'deceptive' and 'unreliable'¹¹⁶ narrators conjure up alternative 'scientific' perspectives on life, for example as a 'mineral', and renew what Carlos Fuentes has called 'a Tradição de La Mancha'. Fuentes argues that Cervantes initiated a 'ridiculing' ('ridícula') and reflexive tradition that blurs the frontiers between fact and fiction, and that can be seen as a counterpoint to the 'tradition of Waterloo' that came to prevail in the nineteenth century, a vein of mostly French Realist fiction that predominated:

Ao borrar a fronteira entre realidade e ficção, Cervantes não apenas celebra a gênese desta como tal. A incerteza de lugar, nome e ação cumpre uma função política, leva a desconfiar de todo dogma, sejam os do Concílio de Trento, das leis da pureza de sangue ou da Santa Inquisição.¹¹⁷

This view can be applied to Machado de Assis's allegorical short stories, in which he similarly upturns traditional portrayals of scientists – perhaps the Brazilian positivist nineteenth-century successors to the Spanish Inquisition. Rather than being wise, they are mad; instead of being serious, they are ridiculous, and instead of sympathetic, cruel. These portrayals satirise the uses and misuses of science not only for individual and personal interests but also for political and ideological control, demystifying their status and desacralising their profession. Machado's allegory is, then, the multifaced Medusa's head,

¹¹³ Sergio Rouanet, 'Dom Casmurro Alegorista'. *Revista USP*, 77. May (2008) 126-134 (p. 132).

¹¹⁴ G. Teskey, 'Allegory' in *The Princeton Encyclopedia of Poetry and Poetics*, ed. by Roland Greene and Stephen Cushman (Princeton: Princeton University Press, 2012), p. 38.

¹¹⁵ Teskey, p. 38.

¹¹⁶ The critic John Gledson stresses that Machado's narrators are primarily deceivers. John Gledson, *The deceptive realism of Machado de Assis: a dissenting interpretation of Dom Casmurro* (Liverpool: F. Cairns, 1984).

¹¹⁷ Carlos Fuentes, 'O Milagre de Machado de Assis', *Folha de São Paulo*, 1 October 2000. <<https://www1.folha.uol.com.br/fsp/mais/fs0110200003.htm>> [Accessed 24 August 2020] (para 14 of 27).

not only absorbing and transforming social-political portrayals, but also creating ironic situations and language.

Since Machado's allegory is multi-faceted and dependent on intertextual elements, the version of irony that the author employs is similarly multiple, and particularly 'polyphonic'. Although not specifically analysing Machado, the Brazilian philosopher of language Beth Brait defines her concept of 'polyphonic irony' as:

um procedimento intertextual, interdiscursivo, sendo considerado, portanto, como um percurso de meta referencialização, de estruturação do fragmentário, que, como organização de recursos significantes, pode provocar efeitos de sentido como a dessacralização do discurso oficial ou desmascaramento de uma pretensa objetividade em discursos tidos como neutros.¹¹⁸

Brait's definition of irony as a polyphonic device is relevant to the work of Machado because his stories about science desacralise and expose the flaws of a decontextualised and newly arrived science. Based on Mikhail Bakhtin's Marxist philosophy of language, which interprets linguistic structures as part and parcel of the historical moment, Brait's definition demonstrates that irony, 'participando da constituição do discurso como fato histórico e social, mobiliza diferentes vozes [e] instaura a polifonia'.¹¹⁹ This is an appropriate approach since the plurality of voices Machado evokes results in a mistrustful, allegorical, ironic and polyphonic literary understanding of the sciences and scientists of the period. Such a portrayal, as noted, can be connected to a constant process of questioning the homogenising and powerful discourses coming from the dominant white elite. In this sense, Machado's 'negritude' allows him to recognise and reject the discriminatory aspects of scientific theories, including notions of 'progress' and 'evolution' then being discussed in Brazil.

Building on the concepts of historical contextualisation, allegory and irony, this chapter will demonstrate how the rise of positivism in Brazil was embedded in 'O Alienista' (1881). It will also show how, through the manipulation of temporal and spatial notions, Machado's stories retrace the unequal historical process of scientifically motivated policies, resulting in an uneven distribution of intellectual power in a country that was politically independent, yet still intellectually and culturally reliant on European ideas. A detailed close reading of the story, which will scrutinise modes of representation, scientific theories and historical contingencies, will show how Machado dissects the contradictions of scientific thought in late nineteenth-century Brazil.

¹¹⁸ Beth Brait, *Ironia em Perspectiva Polifônica* (Campinas: Editora da Unicamp, 2008), p. 16.

¹¹⁹ Brait, p. 16.

‘O ALIENISTA’: THE ALIENATED SCIENCE

‘O Alienista’ (1882) tells the story of Dr Simão Bacamarte, a nineteenth-century psychiatrist (or ‘alienist’) who returns to Brazil after studying in Europe. Equipped with his newly acquired knowledge and his own will power, Bacamarte decides to found the Casa Verde asylum to treat the mentally ill people of Itaguaí, a village in the interior of the state of Rio de Janeiro. After a period of frenetically interning (supposedly) insane patients, Bacamarte himself loses his mind and concludes that *everyone* possesses traces of madness, except for himself, whom he claims, has ‘os característicos do perfeito equilíbrio mental e moral’.¹²⁰ The Quixotic doctor then confines himself to his office and dies alone while trying to understand the nature of his ‘perfect’ self. Despite the apparently tragic *dénouement*, the narrator dismantles the doctor’s obsession with scientific knowledge by likening it to a *comédie d’erreurs*¹²¹ in which governments are overthrown and authorities reconfigured. This structure problematises not only the social ‘arbitrio do poder’,¹²² but also extremist (mis)appropriations of medical science for despotic interests and personal glory. As Bosi stresses, the individual power of Bacamarte is explicitly connected to colonial authority, since Bacamarte is not ‘o tipo do cientista maluco, marginal’ but, rather, a ‘filho da nobreza da terra, ele traz para a colônia a nomeada de maior médico de Portugal e das Espanhas’.¹²³ From the perspective of the relationship between medical and colonial power, the plot of ‘O Alienista’ satirises and allegorises the most pervasive scientific discourse of the end of the century: Comtean Positivism – a progressive philosophy of history and science. Through polyphonic irony, quoting historical facts and literature, the story functions as a veiled criticism and a desacralisation of medical thought via the discussion of power through praxis, insanity and normality.

‘O Alienista’ is one of the most popular novellas of Brazilian literature. It has been adapted for television¹²⁴ and comic books.¹²⁵ Recent studies, ranging from literary criticism

¹²⁰ Machado de Assis, p. 287.

¹²¹ Alfredo Bosi identifies a comic structure in ‘O Alienista’: ‘a partilha entre razão e desrazão o cerne da trama, a história toma o ar divertido de uma comédie d’erreurs sobre a qual paira sempre a sugestão de ser o alienista o único alienado’. Alfredo Bosi, *O Enigma do Olhar* (São Paulo: Ática, 2003), p. 139. Chapter ‘Contos Teoria’ paragraph 14. EPUB file.

¹²² Bosi, *O Enigma*, Chapter ‘Contos Teoria’ paragraph 15. EPUB file.

¹²³ Bosi, *O Enigma*, Chapter ‘Contos Teoria’ paragraph 15. EPUB file.

¹²⁴ J. Mercis, ‘Caso Especial “O Alienista”’ 2020. <https://www.Youtube.com/Watch?V=Cu7qifqprgc&List=Rdcu7qifqprgc&Start_Radio=1&T=1130> [Accessed 3 September 2020].

¹²⁵ Regarding recent adaptations of ‘O Alienista’ in comic books, see: Bárbara Cristina Almada da Silva & Nataniel dos Santos Gomes, ‘As Quatro Adaptações Recentes de O Alienista, de Machado de Assis em

to history and psychoanalysis, have explored how Machado de Assis's racial identity¹²⁶ and epilepsy¹²⁷ may have inspired him to challenge the more dogmatic and totalising turns of scientific discourse. Other, predominantly sociological, studies examine how the ill-equipped and short-staffed mental asylums of the period,¹²⁸ controlled by authoritarian bodies such as the Hospital Pedro II,¹²⁹ compelled the author to create a doctor who uses his disciplinary power to manipulate the truth¹³⁰ and assert his control. However, while these later studies tend to highlight the historical milieu of the end of the nineteenth century, they offer insufficient in-depth scrutiny of the literary structure of the novella.

In contrast, literary and cultural critics have centred their examinations on literary movements, rhetoric and irony. For example, Antonio Candido¹³¹ finds evidence of modernism *avant la lettre* in 'O Alienista', since it questions the borders between 'madness' and 'reason' through humour and liminal situations. Alfredo Bosi, on a more general note, argues that the novella is not about science, but part of a broader trend in Machado de Assis's work, that of the 'contos teoria' in which the author queries selected contemporaneous 'theories' or 'extreme beliefs' and exposes their influence and dangers in family and community life.¹³² The English critic John Gledson,¹³³ in his analysis of *Papéis Avulsos* (1882), argues that Machado is primarily concerned with notions of Brazilian identity and belonging. Without further expanding on this theme, he adds that although 'O Alienista' 'is set somewhere between 1789 (the fall of the Bastille is mentioned) and 1808

Quadrinhos. *Soletras* XI.22 (2011) 61-81. <http://www.educadores.diaadia.pr.gov.br/arquivos/File/abril2013/portugues_artigos/asquatro.pdf> [Accessed 3 September 2020].

¹²⁶ Richard Miskolci, 'Machado de Assis, o outsider estabelecido', *Sociologias*, 15 (2006), 352-377 <<https://doi.org/10.1590/S1517-45222006000100013>> [Accessed 3 September 2020]

¹²⁷ Alexandre de Carvalho Castro, 'Memórias póstumas da loucura mulata: as apropriações de Machado de Assis sob o corte patológico', *História, Ciências, Saúde-Manguinhos*, 26.3 (2019), 863-877. <<https://doi.org/10.1590/S0104-59702019000300008>> [Accessed 3 September 2020].

¹²⁸ José Roberto Franco Reis, 'O mentecapto de Itaguaí, história, loucura e saber psiquiátrico: diálogos historiográficos em torno de "O alienista" de Machado de Assis', *História, Ciências, Saúde – Manguinhos*, 23.4, (2016), 1095-1112 <<https://www.scielo.br/pdf/hcsm/v23n4/0104-5970-hcsm-So104-59702016005000003.pdf>> [Accessed 3 September 2020].

¹²⁹ Maria Vanesse Andrade, Aluísio Ferreira de Lima & Maria Elisalene Alves dos Santos, 'A razão e a loucura na literatura: um estudo sobre o alienista, de Machado de Assis', *Revista Psicologia e Saúde*, 6.1, (2014), 37-47. <http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S2177-093X2014000100006&lng=pt&tlng=p> [Accessed 3 September 2020].

¹³⁰ Telma Dias Fernandes, 'Figurações da loucura em Machado de Assis: história e loucura no Brasil do século XIX', *Seminário Machado de Assis: Novas Perspectivas sobre a obra e o autor*, (2008) <http://www.filologia.org.br/machado_de_assis/Figura%E7%F5es%20da%20loucura%20em%20Machado%20de%20Assis-%20hist%F3ria%20e%20loucura%20no%20Brasil%20do%20s%20E9culo%20XIX.pdf> [Accessed 3 September 2020].

¹³¹ Antonio Candido, 'Esquema de Machado de Assis', *Vários Escritos* (São Paulo: Duas Cidades, 2004).

¹³² Bosi, *O Enigma*, Chapter 'Contos Teoria'. EPUB file.

¹³³ John Gledson, 'Brazilian History in Machado de Assis's "Papéis avulsos"', *Portuguese Studies*, Vol. 11 (1995), pp. 110-124.

(there is still a Viceroy) its historical time is in fact much more elastic'.¹³⁴ So much so that the critic suggests that the story is a philosophical work that transcends notions of precise time and history. Another current trend in literary studies, as noted above by Carlos Fuentes, is the comparison between Simão Bacamarte and Don Quijote de La Mancha in terms of their idealistic, possibly mad enterprises – a point which has been furthered by many critics¹³⁵, but which have not been related to the history of Positivism in Brazil.

In the context of current studies on 'O Alienista', what is missing is an analysis that strives to synthesise these various socio-historical and literary discursive approaches. How do literary devices – irony, didacticism, plays on non-linear history, allegory and satire – enable Machado to reflect critically on the kinds of science practised in Brazil and how they affected culture and society? The literary remarks of Candido and Bosi can be reframed to interpret the novella's literary structure as part of an intellectual historical moment that tended to understand scientific progress as social advancement. To this end, I intend to highlight that the satirical and ironical language of 'O Alienista' has an allegorical impetus which scrutinises the rise of scientific thought in Brazil. Such a rise is, as already noted, strongly entwined with positivism, and more specifically Augusto Comte's version of the movement, which connected the ideas of 'evolution' and 'development' with scientific discovery. Building on Gledson's comments about the novella's 'elastic history', I aim to demonstrate that Machado is effectively tackling the Comtean notion of 'evolution' and 'progress' while, at the same time, invoking an anachronic and mythical time that connects Brazil to its colonial past.

The analysis that follows will be divided into three sections. According to Candido, 'O Alienista' has an 'hourglass plot structure',¹³⁶ in which the main story, once exposed and developed, is turned upside down. Although the critic does not define exactly the various sections in this structure, it is possible to elaborate on the idea as follows: the first section comprises Chapter One of the novella, in which the narrator describes Simão Bacamarte's background through a series of factual errors and anachronisms that complicate – if not dismantle – the notion of historical evolution and accuracy and that reflect the shock

¹³⁴ Gledson, 'Brazilian History' p. 122.

¹³⁵ Maria Augusta Costa Vieira, 'O Alienista em Machado de Assis: O Dom Quixote de Itaguaí', *Letras & Letras*. 20.1 (2014), 69-80 <<https://periodicos.ufes.br/index.php/contexto/article/view/8792>> [Accessed 3 September 2020] and Massaud Moisés, *Machado de Assis. Ficção e utopia* (São Paulo: Cultrix, 2001) and Kétina Allen da Silva Timboni & Ruben Daniel Méndez Castiglioni, 'A "Loucura da Leitura" de Dom Quixote no Alienista', *Revista Historiador* 05. 5 (2020), 125-134, <<http://www.historialivre.com/revistahistoriador>> [Accessed 3 September 2020] and Paulo Roberto Dutra 'Dom Bacamarte de Itaguaí: Rastros de D. Quixote em O Alienista', *Contexto* 26 (2014), 196-216, <<https://periodicos.ufes.br/contexto/article/view/8792>> [Accessed 6 March 2023].

¹³⁶ Although Candido does not describe the hourglass structure in depth, his classification is essential for an understanding of the story. A. Candido, *Vários Escritos*, p. 24.

between the old colonial order and the emerging modern society. The second section, Chapters Two to Twelve, represents an allegory of positivism, and more specifically of Comte's law of the three historical stages – as previously delineated – connecting Bacamarte's private life and the construction of the Casa Verde asylum. This section also discusses the practical and moral implications, such as the doctor's abuses of power in confining 'healthy' patients and in reacting to the town's rebellion against him. The third section, comprising the final chapter, Chapter Thirteen, is a reversal of the second section, the moment when the preceding structure 'capsizes' and acquires its 'hourglass' form. It narrates how Simão fails (or succeeds?) and becomes the tragic victim of his theory. The reading will also show how the humour and absurd situations presented in the story suggest a profoundly reflexive social critique, which attacks the newly configured controlling power of the positivists and the medical classes.

Part I. The Old and the New: A mismatch of (Hi)story

The first chapter of 'O Alienista' – and the first part of the hourglass structure – is concerned with Bacamarte's biographical and psychological characterisation and contains numerous temporal pitfalls and errors which trouble the notion of evolutionary and progressive linear time. For example, the first paragraph of the novella opens with an imprecise historical time, typical of legends, myths and fairy tales: 'As crônicas da vila de Itaguaí dizem que em tempos remotos vivera ali um médico, filho da nobreza da terra e o maior dos médicos do Brasil, de Portugal e da Espanha.'¹³⁷ The reference to 'remote' times allied to a generalising hyperbole – 'o maior dos médicos' – which (re-)unites Portugal and Spain, resonates with the Iberian Union – the royal and dynastic alliance formed between Portugal and Spain following the Portuguese War of Succession (1580–83) which lasted until 1640. Alongside the imprecise timeframe, the space is also vague, since the narrator simply states that the doctor trained in Coimbra and Padua, important intellectual centres since the Renaissance. Padua was also the place where Galileo Galilei made his discoveries.¹³⁸ The oblique, admittedly debatable, nod to the Iberian Union and the intellectual influence of Padua further obscure factual history: Itaguaí, in the seventeenth century, was dominated

¹³⁷ Assis, 'O Alienista', p. 255.

¹³⁸ Peter Machamer, 'Galileo Galilei' in *The Stanford Encyclopedia of Philosophy* (2017), <<https://plato.stanford.edu/archives/sum2017/entries/galileo/>> [Accessed 10 December 2018].

by the missions of the Jesuits, who built the convent of São Francisco to catechise the Tupiniquins and Carijós.¹³⁹

This beginning sets the tone for a series of humorous ‘errors’ which continue to unsettle the historical time of the narrative, including references to the fall of the Bastille (1789), the Viceroy’s interventions in the village (1808) and Simão Bacamarte as an ‘alienista’, a term that only came into usage in the nineteenth century.¹⁴⁰ Perhaps not insignificantly, the narrator also mentions that the village has no printing press (‘naquele tempo, Itaguaí que como as demais vilas, arraiais e povoações da colônia, não dispunha de imprensa’¹⁴¹), which suggests a situation of relative isolation and non-communication. These dislocations transport the reader to a parallel fictional realm, still faintly grounded in history. For the psychiatrist José Lopes, Bacamarte was inspired by Jean Etienne-Dominique Esquirol,¹⁴² who introduced the asylum as a tool in the treatment of mentally impaired people in France at the beginning of the nineteenth century. For Maria Vanesse de Andrade et al., the doctor is inspired by the father of psychiatry in Brazil, Nuno de Andrade.¹⁴³ Simão’s wife, Dona Evarista, is obsessed with fashion, which grew in importance in the 1870s in Rio de Janeiro.¹⁴⁴ The mismatch of historical and fictional times creates a slippery concept of history, which serves to question, rather than simply depict, social changes in Brazil. While Raymundo Faoro argues that the story portrays a relatively stable colonial environment,¹⁴⁵ this analysis suggests the narrator’s play with scattered historical references is indicative of an instability of the transition between colonial and modern society. Indeed, as Katia Muricy stresses, the story displays ‘o confronto entre a realidade colonial de nossos hábitos e o fascínio temeroso das nossas elites diante do moderno e das idéias européias’.¹⁴⁶ The juxtaposition of colonial habits and modern ideas produces a complex allegorical representation of Brazil in the nineteenth century, an anachronistic space, torn between agrarian-Catholic traditions and cutting-edge scientific theories.

¹³⁹ The Tupiniquins and Carijós were native Brazilian tribes brought to the region by the administrator Mem de Sá (1558-1572). José de Souza Azevedo Pizarro Araújo, *Memórias Históricas do Rio de Janeiro* (Rio de Janeiro: Imprensa Nacional, 1946) V.

¹⁴⁰ Alienist <<https://www.etymonline.com/word/alienist>> [Accessed 19 August 2020].

¹⁴¹ Assis, ‘O Alienista’, p. 262.

¹⁴² José Leme Lopes, *A Psiquiatria de Machado de Assis* (Rio de Janeiro: 1979), p. 24.

¹⁴³ Andrade et al., p. 40.

¹⁴⁴ Gilda de Mello e Souza, *O espírito das roupas: a moda no século dezenove* (São Paulo: Companhia das Letras, 1987), p. 125.

¹⁴⁵ Raymundo Faoro, ‘O alienista tem como cenário uma cidade colonial, Itaguaí. O Dr. Simão Bacamarte é filho da nobreza da terra’ in *Machado de Assis: A pirâmide e o Trapézio* (Rio de Janeiro: Biblioteca Azul), Chapter 1, Paragraph 5. EPUB file.

¹⁴⁶ Katia Muricy, *A Razão Cética: Machado de Assis e as questões do seu tempo* (São Paulo: Cia das Letras, 1988), p. 36.

The mismatch between fictional and historical times also foreshadows a fractured allegory of linear and evolutionary history as a critique of politics and society. This theme has been most thoroughly developed by the philosopher Walter Benjamin, in ways directly relevant to an understanding of allegory in Machado. Benjamin characterises allegory as a ‘philosophical, religious, aesthetic, political and historical’¹⁴⁷ concept and expands on its traditional definition, as a ‘continued metaphor’¹⁴⁸ or a ‘prudent encoding’¹⁴⁹ (typical of political situations). In his analysis of Baroque drama, Benjamin concludes that allegory poses a historical dilemma when the action explores the virtues and the vices of rulers forced to confront a social disruption or a state of exception.¹⁵⁰ For Benjamin, it is impossible to prevent the disruptive state of exception, since, for the philosopher, the portrayal of history in Baroque drama – which is characterised by antithetical relations and paradoxical allegories and ¹⁵¹ – is related to catastrophe and decay,¹⁵² which are translated back to the drama via scenes of ruins (broken façades, cracked columns¹⁵³) and fragmentary language. For Benjamin, both elements are pregnant with meaning, since ‘allegories are, in the realm of thoughts, what ruins are in the realm of things’.¹⁵⁴ Therefore, allegories not only shape the drama, but force viewers to understand nature as history, as the ruined remains of the past, reminding them of history’s suffering and failure.¹⁵⁵ The dialectics of the past and present, therefore, ‘[move] only downward and backward into an infinite regression in which history does not assume the form of the process of an eternal life so much as that of irresistible decay’.¹⁵⁶ This understanding of allegory, which is clearly at odds with the confident unfolding of ‘progressive history’, works via a dialectic of visibility and invisibility that, as critic Gordon Teskey argues, ‘does not merely conceal meaning; it makes visible

¹⁴⁷ Howard Caygill, ‘Walter Benjamin’s concept of allegory’ in *The Cambridge Companion to Allegory* ed. by Copeland & P. Struck (Cambridge: Cambridge University Press), pp. 241-253 (p. 241).

¹⁴⁸ Teskey, p. 38.

¹⁴⁹ Teskey, p. 38.

¹⁵⁰ Walter Benjamin, *A Origem do Drama Barroco Alemão*, trad. by João Barrento (Autêntica: São Paulo, 2011), chapter ‘Alegoria e Drama Trágico’, Paragraph 6. EUPB file.

¹⁵¹ Jane O. Newman describes the Baroque period and its interpretation of history as: ‘the Baroque was an age of both reason and superstition, of celebration of the individual combined with a tendency toward cosmopolitanism and loyalty to the ‘national’ causes and duties, and an awareness of pressing historical concerns versus flight into dreamlike, utopian states. Accompanying such period trends were – in a return to specifically literary texts – a celebration of both reliance on foreign literary models and the cultivation of the ‘national’ vernacular, the combination of the ‘sensual’ and ‘immaterial’ in Baroque metaphors, the antithetical relation of the main action of the plays in the ‘real world’ and their ‘ideal’ allegorical choral interludes, and the like.’ Jane O. Newman, *Benjamin’s Library: Modernity, Nation and the Baroque* (Ithaca, New York: Cornell University Press, 2011), p. 71.

¹⁵² Benjamin, *A Origem*, p. 92.

¹⁵³ Benjamin, *A Origem*, p. 331.

¹⁵⁴ Benjamin, *A Origem*, p. 331.

¹⁵⁵ Benjamin, *A Origem*, p. 310.

¹⁵⁶ Benjamin, cited in Doris Sommer, *Foundational Fictions: The National Romances of Latin America* (Berkeley: University of California Press 1991), pp. 44, 45.

things that cannot be otherwise perceived'.¹⁵⁷ What is thus perceived – amidst the fragments and ruins – is, as Jose Guilherme Merquior stresses, a tragic-comedic world, in which the 'revelação da arbitrariedade das normas sociais'¹⁵⁸ also points to the fragility of ethics and virtue.

A sense of 'infinite regression' or downward spiralling, therefore, characterises much of the allegorical form in 'O Alienista'. In keeping with what Gledson calls 'elastic historical time',¹⁵⁹ which unsettles the notion of a linear and evolutionary history, the course of action may be imagined as stretching from the eighteenth to the nineteenth century. The narrator quotes, revives, comments and subverts moments – which can be read as Benjaminian 'ruins' or 'fragments' – in Brazilian politics when social disruption promised a modern, 'improved' society. The oblique allusions to the French Revolution and the Brazilian Regency Wars later in the story, are ways of disrupting the narrative and inviting the reader to evaluate different versions of historical power discourses and governmental changes in Brazilian history. Machado de Assis's presentation of the past as dispersed and incomplete thus resembles Walter Benjamin's vision of history, but with the addition of a satirical laugh, one that ridicules the present in light of the past.

For its part, the satirical impulse of Machado's historico-fictional allegory can be related, on a traditional literary note, to Northrop Frye's definition of satire as 'a militant irony [in which] its moral norms are relatively clear, and [which] assumes standards against which the grotesque and absurd are measured'.¹⁶⁰ For Frye, satire requires two basic components: 'wit or humour' and an 'object of attack'.¹⁶¹ While humour is related to a set of conventions and their 'ridicularisation', any direct attack is closely connected to national and personal hatreds, snobbery and prejudice.¹⁶² In its origin, as the critic Zoja Pavlovskis-Petit stresses, satire embodied the Romans' 'strong disapproval and rejection of anything that falls outside norms delineated by what is established as common sense'.¹⁶³ However, eighteenth-century satiric novelists, such as Laurence Sterne, complicate the concept with 'ironic teases', 'tricks', digression and fragmentation. In this sense, satire is furthered through an 'irony [which grows] to the point where even the status and quality of satire

¹⁵⁷ Teskey, p. 40.

¹⁵⁸ José Guilherme Merquior, *De Anchieta a Euclides: Breve História da Literatura Brasileira* (Rio de Janeiro: José Olímpio, 1979), p. 164

¹⁵⁹ John Gledson, 'Brazilian History', p. 122.

¹⁶⁰ Northrop Frye, *Anatomy of Criticism: Four Essays* (New Jersey: Princeton University Press, 1971), p. 223.

¹⁶¹ Frye, p. 224.

¹⁶² Frye, p. 224.

¹⁶³ Zoja Pavlovskis-Petit, 'Irony and Satire' in *A Companion to Satire*, ed. by Ruben Quintero (Malden: Blackwell Publishing, 2007), pp. 510-524, (p. 512).

become difficult to recognise'.¹⁶⁴ Machado de Assis, according to Harold Bloom 'is closer to Sterne in spirit than anyone else has been';¹⁶⁵ in 'O Alienista' he builds a satirical portrayal of abusive and authoritarian science which, instead of attacking openly, obscures its object, fracturing current traditions, language and ways of thinking.¹⁶⁶

In short, the narrator of 'O Alienista' can be seen to draw elements from Benjaminian allegory and satirical language (as described by Frye, Bloom and others) to denote the social space of Brazil in the late nineteenth century. The dialectics of the local and the international, the traditional and the modern inform Simão's Bacamarte, whose name – Bacamarte – means 'blunderbuss', a crude and archaic weapon of death and destruction and a lethal prototype of the shotgun, used by dragoon troops in the eighteenth century.¹⁶⁷ 'Bacamarte' can also mean an old and thick book, pointing to ancient and remote times. Thus, Simão Bacamarte's very name is a metaphor for an identity torn between the waning system of beliefs of the *ancien régime* and the waxing of a new scientific order, which in Brazil is tied to the rise of modernity, positivism and republicanism.¹⁶⁸ After all, Bacamarte, though somewhere between the blunderbuss and the book, is a 'man of science' who claims to be acting according to modern, empirical protocols.

The scattered historical account, which claims to quote the chronicles of Itaguaí, recalls the narrative framework of the first part of Miguel de Cervantes' *Don Quixote de La Mancha* (1605). In Cervantes' novel too, a third-person narrator directly addresses the reader, claiming to derive his account second or even third-hand from the archives of La Mancha and the work by the Moorish historian and translator Cide Hamete Benengeli, and often commenting on and criticising his quoted sources. This narrative device, which, for the critics Manuel Durán and Fay R. Rigg, 'opens up the novel to a larger perspective',¹⁶⁹ critically distances the reader from the story of Alonso Quixano, an apparently insane nobleman who believes he is a knight from the chivalric romances he compulsively reads.

¹⁶⁴ Pavlovskis-Petit, p. 518.

¹⁶⁵ Although this thesis does not endorse the view that Machado's work represents a 'white perspective', as Bloom stresses in his commentary, the critic's allusion to Sterne is appropriate to the present work. Harold Bloom, *Genius: A Mosaic of One Hundred Exemplary Creative Minds* (NY: Warner Books, 2002), p. 653.

¹⁶⁶ Bosi argues: 'O lugar de onde se move a sátira é, claramente, um topos negativo: a recusa aos costumes, à linguagem e aos modos de pensar correntes. "Mythos do inverno" chamou-a Frye em um estudo rico de modulações teóricas.' Alfredo Bosi, *O Ser e o Tempo da Poesia* (São Paulo: Cultrix, 1977), p. 162.

¹⁶⁷ Bacamarte <<https://pt.wikipedia.org/wiki/Bacamarte>> and Portuguese dictionary: <<https://www.infopedia.pt/dicionarios/lingua-portuguesa/bacamarte>> [Accessed 17 May 2020].

¹⁶⁸ For the philosopher Paulo Arantes, positivism in Brazil was tied to the advent of capitalism: 'Noutros termos, o positivismo aportara entre nós no bojo de uma revoadada de novidades, nascíamos enfim para a vida moderna e a luta de classes, a aurora burguesa que se declarava anunciava também que finalmente emparelhávamos com a transição europeia da qual éramos afinal caudatários: interesses materiais, atores sociais e ideologias, formavam sistema também nesta banda do oceano.' Arantes, p. 187.

¹⁶⁹ Manuel Durán and Fay Rigg, *Fighting windmills: Encounters with Don Quixote* (New Haven and London: Yale University Press, 2006), p. 58.

The critic Santiago Lópes Navina argues that neither the archive nor the historian is a reliable source, since undefined sources intervene both in the creation and the reception of the story.¹⁷⁰ The narrator of 'O Alienista' similarly quotes from other sources, including archives, and uses the same verb, 'dizem'¹⁷¹ to question their veracity:

dizem as crônicas que algumas pessoas afirmavam ter visto cascavéis dançando no peito do vereador; afirmação perfeitamente falsa, mas só devida à absoluta confiança no sistema. Verdade, verdade, nem todas as instituições do antigo regímen mereciam o desprezo do nosso século¹⁷²

In this passage, the use of 'dizem' – 'they say' – is linked to 'hearsay' with regard to both popular rumours and authoritative sources – the implausible image of snakes dancing in the politician's chest, trust in the system and the institutions of the old regime. Through the ironic repetition of the word 'verdade', the narrator playfully manipulates the truth of history and fiction. The very same narrator, inspired by *Don Quijote*, furthers the plot of 'O Alienista' by forging a polyphonic¹⁷³ account that establishes connections between the old colonial order and an emerging Brazilian Republic that is still shaped by colonial structures and not yet entirely dominated by rationality and reason. It is clear that this transition in time foreshadows Bacamarte's madness for, just as Quijote is addicted to chivalric romances, the doctor is obsessed with scientific treatises – as previously pointed by critics who compare both characters.

Equally, the narrator offers a psychological portrait of Bacamarte which approximates his personality and education to the imperialistic and universalising pretences of science. The portrayal is supported by an analogy with astronomy: 'A ciência, disse ele a Sua Majestade, é o meu emprego único; Itaguaí é o meu universo.'¹⁷⁴ The analogy obliquely references the astronomical discoveries of Nicolaus Copernicus and Galileo Galilei, who rejected Ptolemy's argument that the Earth was the centre of the Universe and proved that the planets revolved around the sun. The narrator questions – via Bacamarte's and Itaguaí's metaphor – the capacity of European nations to create micro-centres of imperial gravity around modern projects that include scientific institutions, thus implicitly connecting science to imperialistic, 'post-colonial', enterprises and assuming an ironic

¹⁷⁰ Santiago Navia, 'As Chaves Da Metaficção No Quixote', *Revista USP*, 67 (2005), 250-61, (p. 256) <<http://www.revistas.usp.br/revusp/article/view/13468>> [accessed 9 September 2020].

¹⁷¹ In the short story, the narrator uses the verb 'dizer' five times to quote from the archives.

¹⁷² Assis, 'O Alienista', p. 262.

¹⁷³ For the philologist Leo Spitzer, *Dom Quijote's* plurality of narrative voices is related to Cervantes's creative impetus to combine 'a critical and an illusionistic art according to his free will'. Leo Spitzer, 'On the Significance of Don Quijote', *Modern Languages Notes*, 77. 2 (1962), 113-129 (p. 123).

¹⁷⁴ Assis, 'O Alienista', p. 255.

stance towards the supposedly disinterested ethos of Simão's scientific undertakings: '[Simão] meteu-se em Itaguaí, e entregou-se de corpo e alma ao estudo da ciência, alternando as curas com as leituras, demonstrando teoremas com cataplasmas.'¹⁷⁵ Simão, propelled by a pioneering initiative, wishes to re-define the focus of his studies, swapping European fame for the small town of Itaguaí. Moreover, his commitment to science borders on an obsession: he is not content to 'speculate' but strives to test, prove and put into practice his theories, all of which have a significant impact on the citizens of Itaguaí.

The first 'application' of Simão's science is his choice of wife, Dona Evarista, whom the narrator presents in ironical Darwinian terms:

[Ela] reunia condições fisiológicas e anatômicas de primeira ordem, digeriria com facilidade, dormia regularmente, tinha bom pulso, e excelente vista; estava assim apta para dar-lhe filhos sãos e inteligentes. Se além dessas prendas – única dignas da preocupação de um sábio – D. Evarista era mal composta de feições, longe de lastimá-lo, agradecia-o a Deus, porquanto não corria o risco de preterir os interesses da ciência na contemplação exclusiva, miúda e vulgar da consorte.¹⁷⁶

This description, which resembles a medical report, highlights Evarista's physiological qualities, such as her good digestive system, sleep, cardiac rhythm and eyesight. Moreover, it challenges the pseudo-scientific associations between phenotype (wide hips) and reproductive biology (fertility). However, the Darwinian explanations are anachronistic, since the continuity of genes, bloodline, name and property are preoccupations typical of the nineteenth century – and not of a supposedly early modern period. This mismatch furthers the narrator's challenge of linear and evolutionary concepts of history.

While the description of Dona Evarista belongs to the nineteenth century, Bacamarte's choice of wife resembles, again, that of Don Quijote for Dulcinea del Toboso. According to the critics Kétina Timboni and Ruben Castiglioni, 'as duas personagens [Bacamarte and Quijote] ... escolhem suas mulheres para uma finalidade específica: uma para os princípios da cavalaria andante; e o outro a partir das qualidades físicas inspiradas nos preceitos da medicina'.¹⁷⁷ In the description of Evarista, though, the narrator stresses the contrast between a 'wise' and 'pragmatic'¹⁷⁸ marriage, and a 'vulgar' and 'passionate'

¹⁷⁵ Assis, 'O Alienista', p. 255.

¹⁷⁶ Assis, 'O Alienista', p. 255.

¹⁷⁷ Timboni & Castiglioni, p.129.

¹⁷⁸ For Elton Corbanezi, 'O Alienista' depicts 'o amor higiênico as *pragmático*. Reclamava seus vínculos com a sexualidade e a *procriação*'. Elton Corbanezi, 'O terror do positivo: O alienista e o positivismo comteano', *Plural*, 22.1 (2015), 209-232, (p. 226).

courtship. While the former is encouraged and praised by the *hygienist* movement of the nineteenth century, the latter is deemed as unsuitable for a ‘sábio’, since it would distract him from his ‘male’, ‘scientific’ ‘responsibilities’. For the psychiatrist Jurandir Freire Costa, a similar distinction was made by medical theses of the period. Freire argues that doctors encouraged men to find a wife whose ‘organização é conformada de todo modo que, ajustando-se a nossa, possa assim reproduzir esse todo cujo fim é a conservação da espécie.’¹⁷⁹ Therefore, the ‘casamento higiênico’ has the objective of ‘inserir-se maduramente na política de conservação biológica e moral da espécie’,¹⁸⁰ that is to say, of producing healthy and intelligent children. The conjunction of Quijote’s idealism and the hygienists’ positivistic emphasis on a ‘wise’ marriage leads Bacamarte to an exaggerated and idealistic pursuit of positivistic science even in subjective relationships. However, while Quijote and Bacamarte are idealistic, the source of their idealism differs: the former idealises his beloved in starkly ironic contrast to her earthly reality, while the latter idealises his beloved for her positivistic and medical perfection. In contrast to Quijote, who worships Dulcinea, Simão is interested in a naturalised marriage, conceived according to scientific protocols.

However, the narrator ridicules Bacamarte’s endeavour by way of situational irony: despite his careful choice, Evarista cannot have children. Driven by a desire to change the situation, Bacamarte meticulously studies and revises his notes on the matter. He even ‘enviou consultas às universidades italianas e alemãs, e acabou por aconselhar à mulher um regímen alimentício especial’.¹⁸¹ Yet, his efforts are in vain, since ‘a ilustre dama, nutrida exclusivamente com a bela carne de porco de Itaguaí, não atendeu às admoestações do esposo; e à sua resistência, – explicável, mas inqualificável, – devemos à total extinção da dinastia dos Bacamartes’.¹⁸² The irony also functions at a colonial and racial level as Bacamarte seeks answers in foreign theories, while Evarista is fed by the local food – and perhaps also the principles and way of life of Itaguaí. Once more, Simão tries to ‘produce’ a wife whose main function is reproduction, disregarding her preferences – and even her nationality. Evarista’s constrained resistance contrasts with Bacamarte’s wilful submission to science, creating a familiar family impasse which distances him from the scientific principle of the Darwinian survival of the fittest, or a more evolved human being in Comtean

¹⁷⁹ Miguel Antonio Heredia de Sá, cited in Costa, p. 230.

¹⁸⁰ Costa, p. 231.

¹⁸¹ Assis, ‘O Alienista’, p. 255.

¹⁸² Assis, ‘O Alienista’, p. 255.

terms, and reduces him to the more selfish search for the survival of his own genes, which runs contrary the allegedly interest-free nature of science.

Muricy interprets Evarista's infertility as an ironic triumph of science, since her refusal to follow the diet prevents her from having children.¹⁸³ Bacamarte's blind faith in his studies leads him to the conclusion that 'his' science is still correct, despite growing evidence to the contrary. His obsession with his studies (alongside his wife's rebellion) distances him from Evarista and brings him closer to his work. As Lopes¹⁸⁴ emphasises, it is the doctor's disillusionment with childlessness that drives him to the study of 'a saúde da alma'¹⁸⁵ – an expression which demonstrates that he is already mixing religious and scientific terms. His longing for progeny – part and parcel of a conventional, idealisation of the patriarchal family – is then transferred to an insatiable search for a scientific breakthrough that would immortalise his name: 'Simão Bacamarte compreendeu que a ciência lusitana, e particularmente a brasileira, podia cobrir-se de "louros imarcescíveis"'.¹⁸⁶ By emphasising the expression 'louro imarcescíveis' with inverted commas, Machado makes the reader aware of the physician's psychological intentions. Self-absorbed in his studies and seeking fame in both the metropolis and the (ex)colony, Bacamarte wants to be remembered for his great deeds in compensation for his lack of children. While scientific success – in mundane terms – takes the place of the child (or the children) that Bacamarte wishes to have, the doctor may be concerned with generation and genealogy as a means to avoid degeneration and decay, nineteenth-century theories which, bordering on obsession, involved the so-called improvement of the race through the reproduction of similar genetic phenotypes (whites with whites). While 'O Alienista' does not seem to tackle eugenic-inspired theories per se, they nonetheless seem to lurk at the back of Simão's mind.

In the next episode, the doctor opens the asylum, Casa Verde, where he plans to care for the mentally ill patients of the city. However, he cannot do so as if he were some Robinson Crusoe-like, self-made man. Instead, he must go to the city council and convince the magistrates of its importance. The move demonstrates his quasi-political influence on the government and confirms, moreover, that scientific power is implicated in political, economic and civic authority. The government approves his proposal and introduces a new tax to fund it. The chapter ends, like the hubristic first episode of a Greek tragedy, with a contradiction: Simão is portrayed as personally disillusioned but professionally triumphant.

¹⁸³ 'O fato de Evarista não ter filhos é o triunfo da ciência, porque ela se recusa a seguir a dieta prescrita por Simão'. Muricy, pp. 36, 37.

¹⁸⁴ Lopes, *A Psiquiatria*, pp. 36, 37.

¹⁸⁵ Assis, 'O Alienista', p. 256.

¹⁸⁶ Assis, 'O Alienista', p. 256.

The allegorical, unreliable and fractured historical time, combined with the allusions to Quijote, sets the tone for a comedic tragedy, a hybrid or mixed form that conjures up the previously noted concerns about miscegenation and a tale that problematises the spread of scientific ideas in Brazil. Torn between the old colonial order and the emerging positivist state, the beginning of 'O Alienista' introduces the allegory of Comtean positivism, stretching history and creating absurd situations, analysed in the next section.

Part 2: Allegory: Positivism *a la* Quijote

After introducing a series of historical inaccuracies, thus challenging the notion of the linear and evolutionary development of history, the narrator sets in motion an allegorical treatment of a Comtean Positive philosophy of history. In light of the concept of allegory as a destructive fragmentation, the second part of 'O Alienista' can be analysed as a critique of positivism from the point of view of the 'colonial and modern'¹⁸⁷ Brazilian fictional space. Created through diverse terminology and methods, Machado's allegory of positivism puts its progressive theory to the test through a reflection on the uses and abuses of scientific power in a country whose archaic past persists in dragging the present towards a future of conflicts.

As the sociologist Elton Corbanezi observed, 'O Alienista' was published in the periodical *A Estação* in 1881, the same year in which the *Apostolado Positivista* was inaugurated.¹⁸⁸ Corbanezi identifies a clear reference to Comte in the fifth chapter of the novella, when the citizens of Itaguaí claim that Bacamarte is spreading '*positivamente o terror*' (emphasis added). However, I argue that positivist allusions are not limited to the fifth chapter, but abound in Bacamarte's speeches, rhetoric and vocabulary. Moreover, allusions to positivism are not simply thematic but are inserted into the formal structure of the novel, since the three-stage evolutionary history proposed by Comte is allegorised in the plot and hourglass structure of the novella. In Chapter Two, for example, in his debates with Father Lopes (the priest who guides the spiritual well-being of the village), Bacamarte seeks to introduce science to the village of Itaguaí, which is still theologically guided by the Catholic Church. In order to do so, Bacamarte needs to adapt his language to the religious mentality of the village. Thus, the theological stage begins to morph into the metaphysical stage, with the positivistic one waiting to enter. Another example is found in the dialogue

¹⁸⁷ John Gledson, *Por um novo Machado de Assis* (São Paulo: Companhia das Letras, 2006), p. 50.

¹⁸⁸ Corbanezi, p. 211.

between Simão and the pharmacist Crispim Soares. The doctor rehearses a mode of scientific humanism (in a similar fashion to the *Système...*) in which the ‘coldness’ of a classificatory system is balanced with the ‘warmth’ of human charity and the ‘mystery’ of religious observance as revealed in the New Testament:

A caridade, Sr. Soares, entra decerto no meu procedimento, mas entra como tempero, como o sal das coisas, que é assim que interpreto o dito de São Paulo aos Coríntios: ‘Se eu conhecer quanto se pode saber, e não tiver caridade, não sou nada’. O principal nesta minha obra da Casa Verde é estudar profundamente a loucura, os seus diversos graus, classificar-lhe os casos, descobrir enfim a causa do fenómeno e o remédio universal. Este é o mistério do meu coração. Creio que com isto presto um bom serviço à humanidade.¹⁸⁹

Even though the passage exemplifies Bacamarte’s attempt to reconcile science and religion, it only reinforces the tension between the old and the new social orders illustrated in Simão Bacamarte’s name. As already mentioned, ‘Bacamarte’ means ‘blunderbuss’, alluding to death and destruction. However, Simão is a biblical name, characterising nine different men,¹⁹⁰ one of whom – the apostle Peter – was, with Paul, the founder of the Christian Church. Moreover, the reference to Paul’s letters to the Corinthians suggests that the doctor wishes to be as humble as Paul – ‘se não tiver caridade, não sou nada’, although this contradicts the ‘mistério do *meu* coração’ (emphasis added), which points to an individualistic wish. Moreover, ‘mystery’ references the second letter, in which Paul uses the term ‘to express the plan of God’s salvation once hidden and revealed in the person and redemptive life of Christ’.¹⁹¹ In the original biblical verse, Paul speaks of a hidden knowledge that emanates from the Holy Spirit: ‘pregamos a sabedoria de Deus, misteriosa e secreta, que Deus predeterminou antes de existir o tempo, para a nossa glória’.¹⁹² Here, Simão’s travesty of humility and mystery represents an egotistic and god-like attempt to use the village as a guinea pig in his efforts to create a supposedly new era of reason.

The redesignation of religious categories for secular purposes continues when Bacamarte classifies his patients as ‘mansos’ and ‘furiosos’ – terms that could hypothetically allude to the biblical language of the Beatitudes¹⁹³ and that link the doctor with supporters of the old order. More generally, the doctor starts calling ‘mad’ people ‘deserdados do

¹⁸⁹ Assis, ‘O Alienista’, p. 257.

¹⁹⁰ ‘How many people are named Simon in the Bible? (2020) <<https://thebibleanswer.org/people-named-simon-in-bible/>> [Accessed 2 August 2022].

¹⁹¹ *The Holy Bible* <<https://bibtescripture.net/1Corinthians.html>> [Accessed 14 January 2022].

¹⁹² *Bíblia Católica Online* <<https://www.bibliacatolica.com.br/biblia-ave-maria/i-corintios/2/>> [Accessed 14 January 2022].

¹⁹³ São Mateus, 5-5. *Bíblia Católica Online* <<https://www.bibliacatolica.com.br/biblia-ave-maria/sao-mateus/5/>> [accessed 18 May 2020].

espírito',¹⁹⁴ which points to an attempt to merge Catholicism and positivism. Again, the story seems to be alluding to Corinthians: in Chapter Two, Paul argues: 'todavia, Deus no-las revelou pelo seu Espírito, porque o Espírito penetra tudo, mesmo as profundezas de Deus'.¹⁹⁵ Thus, in one sense, the use of the term 'spirit' is borrowed from the Bible but reinterpreted through Bacamarte's new scientific language. He continues his endeavour by stressing that Casa Verde 'é agora uma espécie de mundo, em que há o *governo temporal* e o *governo espiritual*'¹⁹⁶ (emphasis added).

Although the terms 'temporal' and 'spiritual' appear related to Christianity, they are also social categories deployed by Comte to effect a successful political change in society. In his *Plan des travaux scientifiques nécessaires pour réorganiser la société* (*Plan of the Scientific Work Necessary for the Reorganisation of Society*, 1822), Comte states:

The formation of any sort of plan of social organisation is necessarily composed of two series of operations... One, theoretical or spiritual, has as its goal the development of the seminal idea of the plan, that is of the new principle according to which social relations must be co-ordinated, and the formation of the system of general ideas intended to serve as a guide for society. The other, practical or temporal, determines the mode of distribution of power and the system of administrative institutions which are in closest conformity with the spirit of the system as settled by the theoretical operations.¹⁹⁷

It is possible to infer from Comte's words above that 'spiritual power' pertains to morals, to 'the regulation of opinions, feelings, and wills',¹⁹⁸ and the 'temporal' 'operation' to practical matters, such as administration. Accordingly, the narrator also adds:

Simão Bacamarte começou por organizar um pessoal de administração; e, aceitando essa ideia ao boticário Crispim Soares, aceitou-lhe também dois sobrinhos, a quem incumbiu da execução de um regimento que lhes deu, aprovado pela Câmara, da distribuição da comida e da roupa, e assim também da escrita, etc. Era o melhor que podia fazer, para somente cuidar do seu ofício.

From the language used by Bacamarte, it is more than possible to see him as a disciple of Comte. As a bearer of 'spiritual power', the doctor needs to occupy himself with theoretical matters but also requires a 'pessoal de administração' to administrate the more 'temporal' aspects of his work. This business-like mentality has led some critics to interpret

¹⁹⁴ Assis, 'O Alienista', p. 257.

¹⁹⁵ *Bíblia Católica Online*. <<https://www.bibliacatolica.com.br/biblia-ave-maria/i-corintios/2/>> [Accessed 14 January 2022]

¹⁹⁶ Assis, 'O Alienista', p. 259.

¹⁹⁷ Auguste Comte, *Early Political Writings* (Cambridge: Cambridge University Press, 2012), pp. 65, 66.

¹⁹⁸ Auguste Comte (1826) cited in Bourdeau (2018), p. 174.

Bacamarte as a caricature of the positivist Nuno de Andrade,¹⁹⁹ the director of the hospice Pedro II who questioned the religious orders of the Santa Casa de Misericórdia. Andrade argued that religion should be excluded from medical care, at the time organised by nuns. However, it would be too simplistic to restrict the multiple references to positivism to a single person, since the narrator uses allegory to satirise a philosophy of thought, rather than any particular individual – which would not be a general characteristic of Machado's satire.

While the narrator's lexicon is clearly related to positivist principles, Simão's compulsive consumption of scientific studies begins to corrode his sanity and reason in a quixotic manner: 'mal dormia e mal comia; e, ainda comendo, era como se trabalhasse, porque ora interrogava um texto antigo, ora ruminava uma questão, e ia muitas vezes de um cabo a outro do jantar sem dizer uma só palavra a D. Evarista'.²⁰⁰ His lack of rest, coupled with his neglect of his wife, points towards a gradual but profound and even obsessive change. Rather than being an observer, he becomes the object of his own study. This subverts a deeply held tenet not only of positivism but of science in general, that of the separation of researcher and subject. This transformation is reinforced in Chapter Three when, after being confronted by his melancholic wife, Simão suggests that she should spend some time in Rio de Janeiro, accompanied by her aunt (whose husband is the pharmacist Crispim). As the Cervantes scholar Maria Vieira observes, when Bacamarte and Crispim Soares say their goodbyes, there is yet another symmetry between them and Don Quijote and Sancho Panza.²⁰¹ Consider the following passage:

Crispim Soares, ao tornar a casa, trazia os olhos entre as duas orelhas da besta ruana em que vinha montado; Simão Bacamarte alongava os seus pelo horizonte adiante, deixando ao cavalo a responsabilidade do regresso. Imagem vivaz do gênio e do vulgo! Um fita o presente, com todas as suas lágrimas e saudades, outro devassa o futuro com todas as suas auroras.²⁰²

This scene stitches together multitemporal and polyphonic intertextual references. It depicts Bacamarte as a confident knight errant of science, who in search of progressive 'auroras' (from the Latin 'aurum' for gold) rides towards the creation of a positivistic society, much as a knight errant would have ridden to discover jewels and gold in previous centuries. In contrast with his optimism, Crispim sorrowfully contemplates an unhappy present whilst

¹⁹⁹ Andrade et al, p. 40.

²⁰⁰ Assis, 'O Alienista', p. 259.

²⁰¹ Maria Augusta Costa Vieira, 'O Alienista em Machado de Assis: O Dom Quixote de Itaguaí'. *Letras & Letras*. Uberlândia 20.1 (jan./jun. 2004), 69-80 and Moisés, *Ficção e utopia*, p. 131.

²⁰² Assis, 'O Alienista', p. 261.

riding his donkey, which foreshadows the following two chapters in which the town rebels against Bacamarte's version of science. The temporal orientation of the characters reinforces a reversed allegorical treatment of the 'law of the three stages'. Bacamarte, the 'gênio', unwittingly and irresponsibly takes his eyes off the road in order to progress to the next, rational, stage while Crispim remains in the more 'bestial' but also prescient and practical, metaphysical, 'feudal-Catholic' stage.

In Benjaminian terms, the intertextuality with Quijote further spirals the allegory towards an anachronistic past: Bacamarte represents 'um heroísmo desproporcional ao estilo dos grandes heróis épicos'.²⁰³ While Don Quijote incessantly reads chivalric romances, Bacamarte studies positivist science, but also 'textos antigos'. However, the result is the same: they are both alienated from their current historical and social context. It is relevant that the word 'alienista' not only means 'psychologist' but also comes from the Latin 'alienare' – 'to deprive of reason, drive mad'.²⁰⁴ In this sense, Bacamarte – the alienist, or doctor of the alienated – becomes Bacamarte himself the alienated, driving himself mad paradoxically by relinquishing the responsibility for his progress to his mule, a 'regresso' that is not just a return but also a regression in the Cometeian framework. The alienist's goal – a quixotic quest to relieve the insanity of others – is thus as ludicrous as that of the wandering knight who wishes to revive the golden age of chivalry.²⁰⁵ Ultimately, the scene captures the oxymoronic implications of the introduction of science in Brazil: mounted on an archaic mode of production, it rides irresponsibly forward to an invincible future, with little regard to the actual social context or the presence of its companions.

3. Simão Bacamarte's Scientific Society

After setting an archaic tone for Bacamarte's endeavours, the narrator describes the doctor's first breakthrough. After his wife's departure, Simão finally has time to examine his patients and to introduce the scientific stage in the social order of Itaguaí. He concludes that his experiment will change the face of the world: 'a loucura, objeto dos meus estudos, era até agora uma ilha perdida no oceano da razão; começo a suspeitar que é um continente'.²⁰⁶ Bacamarte's new hypothesis, which he needs to put into practice through an experiment, is

²⁰³ Vieira, p. 76.

²⁰⁴ Alienist <<https://www.etymonline.com/word/alienist>> [Accessed 6 May 2020].

²⁰⁵ Vieira, p. 76.

²⁰⁶ Assis, 'O Alienista', p. 262.

that madness is not an exception to a rational rule but, rather, the rule itself. This ‘rule’ is based on a comprehensive study, including a ‘vast surface of brains’ (‘vasta superfície de cérebros’) belonging to the people from Itaguaí. The vocabulary changes from the ‘saúde da alma’ to ‘superfície de cérebros’, indicating that Bacamarte has replaced spiritual language with a scientific lexicon. As such, madness is now concrete and grounded in the matter of the brain, instead of being an abstract concept related to the spirit:

No conceito dele a insânia abrangia uma vasta superfície de cérebros; e desenvolveu isto com grande cópia de raciocínios, de textos, de exemplos. Os exemplos achou-os na história e em Itaguaí mas, como um raro espírito que era, reconheceu o perigo de citar todos os casos de Itaguaí e refugiou-se na história. Assim, apontou com especialidade alguns personagens célebres: Sócrates, que tinha um demónio familiar, Pascal, que via um abismo à esquerda, Maomé, Caracala, Domiciano, Calígula, etc., uma enfiada de casos e pessoas, em que de mistura vinham entidades odiosas, e entidades ridículas.²⁰⁷

The previous passage conflates ‘uma vasta superfície de cérebros’ and a ‘cópia de raciocínios, de textos, de exemplos’. One possible explanation for this conflation is that Comte believed ‘the introspective study of the mind’²⁰⁸ could be approached objectively and practically via either phrenology or sociology. While phrenology, as Hergenhahn and Henley contend, ‘was an effort to relate mental events to brain anatomy and processes ... reduc[ing] psychology to physiology’ by the physical examination of skulls and brains, sociology was the study of ‘the mind by its products ... the [social] behaviour’.²⁰⁹ Vincent Guillin argues that there is a co-dependency between these areas of study for Comte since ‘phrenology [was] the appropriate ground of what he called “a truly rational theory of human nature”’.²¹⁰ In the *Cours*, Comte ‘held mankind to be a sociable species that demanded to be organised hierarchically to satisfy’²¹¹ the affective, practical and intellectual necessities of its members. This hierarchical structure was supported by phrenology, which contended that certain individuals were biologically predisposed to different roles. In other words, there were ‘independent cerebral organs on which these capacities depended’, and ‘there [was] even a first general division of the brain into three areas that correspond[ed] to Comte’s three historical stages (theological, metaphysical and positive/scientific)’.²¹² This

²⁰⁷ Assis, ‘O Alienista’, p. 262.

²⁰⁸ Auguste Comte, cited in B. R. Hergenhahn & Tracy B. Henley, *An Introduction to the History of Psychology* (Belmont: Wadsworth, 2014), p. 161.

²⁰⁹ Hergenhahn & Henley, p. 161.

²¹⁰ Vincent Guillin, *Auguste Comte and John Stuart Mill on Sexual Equality: Historical, Methodological and Philosophical Issues* (Boston: BRILL, 2009), p. 95.

²¹¹ Guillin, p. 96.

²¹² Guillin, p. 96.

suggests a biological predeterminism and predisposition, dependent on the relative cerebral profiles of individuals or groups. In the naturalised and unexamined paternalistic protocols of the time, women, for example, would supply affective needs, while men would be responsible for practical and intellectual areas.²¹³

Bacamarte then develops the first aspect of his theory of 'Insânia'. Sanity is posited as the complete harmony of all mental faculties, whereas disharmony can be classified as insanity. However, Father Lopes questions Bacamarte's proposition, for the priest feels reason and madness are already well-defined in religious terms. Bacamarte, influenced by the belief that he, unlike Father Lopes, is a 'new priest' of a 'more developed' humanity, scornfully dismisses the priest, suggesting that science and religion cannot be reconciled: 'Itaguaí e o universo ficavam à beira de uma revolução'.²¹⁴ For Comte, revolution – via the French and the Industrial Revolutions – represented a necessary demarcation between the metaphysical and scientific (or positive) stages necessary for the emancipation of society.²¹⁵ Similarly, in 'O Alienista', revolution comes from the population itself in response to Bacamarte's version of 'science'.

In the novella, the interpretation and execution of the revolution are ambiguously called a 'revolução' by its leaders but a 'rebelião' by Bacamarte. The narrator seems to employ these terms interchangeably, but it is clear that they mean different things to their users, mirroring the ambivalent ways in which the French Revolution was viewed even by positivists. For example, Bacamarte associates the 'rebellion' of his patients with 'terror', repeating the word eight times between Chapters V and X. Chapter V could also be read as a critical revision of the legacy of Robespierre's Reign of Terror (*la Terreur*) in the 1790s, a reign characterised by harsh punishment, arbitrary imprisonment and mass execution. The philosopher William Bristow notes that this was the moment at which the conflict between the Enlightenment ideals of liberation and order was laid bare:

The explicit ideals of the French Revolution are the Enlightenment ideals of individual freedom and equality; but, as the revolutionaries attempt to devise rational, secular institutions... they have recourse to violence... The devolution of the French Revolution into the Reign of Terror is perceived by many as proving the emptiness and hypocrisy of Enlightenment reason.²¹⁶

²¹³ Guillin, p. 97.

²¹⁴ Assis, 'O Alienista', p. 263.

²¹⁵ Bourdeau & Pickering, p. 4.

²¹⁶ William Bristow, 'Enlightenment'. *The Stanford Encyclopedia of Philosophy* (2017), <<https://plato.stanford.edu/archives/fall2017/entries/enlightenment/>> [Accessed 10 December 2018].

Without justifying his actions, Bacamarte, working under the assumption of a generalised ‘Insânia’, turns the asylum into a ‘cárcere privado’²¹⁷ and starts to intern patients who apparently present no clinical symptoms of madness. For example, Costa, a formerly wealthy gentleman whose generosity impoverished him, is interned, as is Mateus, a maker of packsaddles whose pastime was contemplating his newly built house. A further twenty previously healthy individuals were identified as insane by Simão. Despite pleas for compassion and consideration by the families of the interned, he continues undeterred, never pausing to consider the consequences of his actions: ‘a ciência era a ciência, e que ele não podia deixar na rua nenhum mentecapto’.²¹⁸ The alienist also tests his hypothesis in an experiment: in a sumptuous welcome-home dinner for Evarista, he observes the poet Martim Brito celebrating his wife and concludes that Brito is mad and needs to be locked up. In this sense, a philosophical framework – whether enlightened or positivist – which was supposed to foster rationality and social reform turns into an authoritarian doctrine of power and control, since only the alienist knew why his patients were effectively mad.

Bacamarte’s self-aggrandising authority is aided by the existing disciplinary and administrative structure of patriarchy, which gives him power over his wife, as well over the sick but ‘as formas gerais da existência e do comportamento’.²¹⁹ As well as a caricatured embodiment of the positivist scientist, he is therefore also the exaggerated prototype of the nineteenth-century psychiatrist. According to Michel Foucault, psychiatrists were dependent on the rise of the clinic as a space of cognition and study:

O médico é competente, o médico conhece as doenças e os doentes, detém um saber científico que é do mesmo tipo que o do químico ou do biólogo; eis o que permite a sua intervenção e a sua decisão. O poder que o asilo dá ao psiquiatra deverá então se justificar e ao mesmo tempo se mascarar como sobre-poder primordial produzindo fenómenos integráveis à ciência médica.²²⁰

Since the doctor has the power to identify the sick, he also has the power to generate the sickness. This self-generating control, according to Foucault in his exemplification of Charcot’s method, produces a crisis in psychiatry which calls into question the absolute power of the doctor:

hipótese: a crise foi inaugurada e a idade ainda mal esboçada da antipsiquiatria começa quando se desconfiou, para em seguida se ter certeza, que Charcot produzia efetivamente a crise de histeria que descrevia. Tem-se aí mais ou menos o

²¹⁷ Assis, ‘O Alienista’, p. 266.

²¹⁸ Assis, ‘O Alienista’, p. 264.

²¹⁹ Michel Foucault, *Microfísica do poder*, trans. by Roberto Machado (São Paulo: Graal, 1984), p. 202.

²²⁰ Foucault, p. 123.

equivalente à descoberta feita por Pasteur de que o médico transmitia as doenças que devia curar.²²¹

The similarity between the trajectory described by Foucault and ‘O Alienista’ is compelling. Ironically, Bacamarte is not only an alienist who creates sickness but also one who transmits it. The infection of his patients with the ‘sickness’ of self-righteous positivism can be observed in the interaction between Bacamarte and Porfírio, the barber who leads the rebellion against Simão’s (pseudo-)scientific tyranny. According to the historian Betânia Gonçalves de Figueiredo, in colonial and Imperial Brazil, barbers were a type of doctor, performing minor surgery and administering bleedings and suction cups.²²² Figueiredo adds that these barber-doctors were sometimes freed slaves who found a place in society by treating the underprivileged sick. While the rivalry between Simão and Porfírio represents a clash between the so-called metaphysical and positivist orders (since Porfírio does not have European instruction), both are similar in their hypocritical claims that they place collective needs first: ‘Porfírio, desde que a Casa Verde começara a povoar-se tão extraordinariamente, viu crescerem-lhe os lucros ... mas o interesse particular, dizia ele, deve ceder ao interesse público.’²²³ The passage indicates that although Porfírio wishes to sacrifice his own interests to fight Bacamarte’s tyranny, once in power, he too may be corrupted by greed.

Bacamarte’s experiment and the barber’s rebellion are linked by a final tagline to the chapter. Father Lopes celebrates the incarceration of his intellectual rival, Coelho, the prototype of a humanist scholar. Lopes’s rage comes from the fact that Coelho corrected him when he misquoted verses from Dante’s *Inferno* (XXXIII), swapping ‘peccatore’ (sinner) for ‘seccatore’ (nuisance): ‘La bocca sollevò dal fiero pasto/quel’ seccatore’.²²⁴ The quotation refers to the punishment of the traitors Count Ungolino and Archbishop Ruggieri in which the former is condemned to devour the head of the latter. In Dante’s work, this form of punishment is reserved for those who betray their homeland. The critic Eugenio Moraes regards the change of adjective – from ‘sinning’ to ‘annoying’ as not only a departure from the sublime tone of the original, but also a cunning rearrangement, since ‘seccare’ is the verb that ends the previous chapter in the original *Inferno*. This deceptive dislocation of meaning serves as a criticism of the ‘beletrismo local’, in which ‘uma das suas marcas é o uso vazio

²²¹ Foucault, p. 123.

²²² Betânia Gonçalves Figueiredo, ‘Barbeiros e cirurgiões: atuação dos práticos ao longo do século XIX’. *História, Ciências, Saúde-Manguinhos*, 6.2 (1999), 277-291. <<https://dx.doi.org/10.1590/S0104-59701999000300003>> [Accessed 10 September 2020].

²²³ Assis, ‘O Alienista’, p. 269.

²²⁴ Assis, ‘O Alienista’, p. 270.

das citações o que implica'.²²⁵ Moraes stresses that the use of quotations is characteristic of the higher classes who wish to deceive the masses with their empty discourse. While Moraes's criticism is significant, there is an additional layer of meaning in the linguistic swap: it shows how positivism appropriates spiritual discourse for secular use, turning 'sinners' into 'annoyances' who need to be hospitalised. The quotation also foreshadows the fact that the leaders of the rebellion will themselves end up in the Casa Verde.

In Chapter VI, the townspeople, led by the barber Porfírio, conspire to destroy the Casa Verde, the 'bastilha da razão humana'. The asylum, which was designed to isolate the insane from the sane and to heal both the mentally ill and society as a whole, has become a tool of oppression. The passage reinforces the authoritarian-revolutionary interplay of ideas, and the word 'bastilha' makes explicit the parallel with the French Revolution whose emblematic act was the storming of the Bastille: the revolutionaries 'podiam ser comparados aos que tomaram a Bastilha'.²²⁶ The 'rebellion'/'revolution' was baptised the 'Cangica', evoking the Regency rebellions²²⁷ such as Balaiada (1839), Sabinada (1837) and Farroupilha (1835). The aim of these localised uprisings, which occurred across the country, was to foment new forms of government (republicanism, federalism)²²⁸ by challenging the centralised authority of monarchic power. Intending to demand the immediate release of the 'prisoners', the 'cangicas' march towards Simão's house. However, Bacamarte persuades the mob with what appears to be a rational rhetoric of scientific expertise and authority: 'A ciência é cousa séria e merece ser tratada com seriedade. Não dou razão dos meus atos de alienista a ninguém, salvo aos mestres e a Deus.'²²⁹ Almost 'hypnotised' by Bacamarte's persuasive powers, the crowd loses its initial enthusiasm. While observing Bacamarte and assimilating the manner in which he controlled the crowds – perhaps becoming 'infected' with the doctor's positivism – Porfírio 'sentiu despontar em si a ambição do governo'.²³⁰ From this moment on, the barber starts to act in a similar fashion to Bacamarte, using the mimetic force of Bacamarte's words, appealing to new values such as popular government and masking his most obscure desires: 'forcejava por ver o seu nome incluído nos pelouros

²²⁵ Eugênio Moraes, 'A Literatura como Traição: Os versos de Dante em "O Alienista"', *Machado de Assis em linha*, 6. II (2013), 39-61 (p. 42).

²²⁶ Assis, 'O Alienista', p. 271.

²²⁷ Gledson, 'History in Machado de Assis's Papéis...', p. 122.

²²⁸ Lilia Moritz Schwarcz & Heloisa Murgel Starling, *Brasil: uma biografia* (São Paulo: Companhia das Letras, 2015), p. 245. Chapter 10, paragraph 27. EPUB file.

²²⁹ Assis, 'O Alienista', p. 272.

²³⁰ Assis, 'O Alienista', p. 273.

(emphasis added) para o sorteio dos vereadores'.²³¹ Such thoughts are an echo of the 'louros imarcescíveis' which Bacamarte coveted in Chapter I.

Chapter VII depicts the 'revolução triunfante',²³² in which the Portuguese Royal dragoons refuse to fight against their fellow Itaguaenses. The result is that Porfírio, along with the mob, takes over the government. It is particularly telling that Porfírio's name means 'purple stone', suggesting a sense of hardness or resoluteness which accompanies the colour. 'Purple' itself comes from the Greek, *porphureos*, and originally did not 'name a colour or hue but a sheen or iridescence, a mixture of light or dark on the surface';²³³ thus it alludes to a mixture of colours and, apropos of the theme of the nineteenth century, race. A hypothesis is that Porfírio may have been a mixed-race ex-slave, as were a number of barbers in the colonial period. Purple is also commonly related to the nobility and the clergy. Such a multitude of associations indicates that the revolution is challenging old hierarchies and power. However, in his inauguration speech, the barber makes no mention of the destruction of the Casa Verde, nor any other revolutionary order, indicating that he will continue to accord the traditional honour to the new government, declaring that 'o governo não tem inimigos'.²³⁴ If a government has no enemies, there is no need to celebrate a Mass to pray for help. The satire of the authoritarian rule suggests, then, an inescapable circle in which revolutionary power revolves upon itself to become as terrible and oppressive as the regime it had opposed.

Chapters VIII and IX return to the theme of allegiances and treason – as the misquote from *Dante's Inferno* suggested previously – by narrating how Crispim, Bacamarte's faithful pharmacist friend, who is tormented by the thought of being arrested and executed, becomes loyal to the new government, and how Porfírio betrays his comrades by endorsing Bacamarte's project. In a visit to the Casa Verde, Porfírio subserviently tells the doctor that, even though the 'generosa revolução'²³⁵ asked for the destruction of the asylum, he thought they should reevaluate its importance and act together to form a united government: 'o governo, concluiu o barbeiro, folgaria se pudesse contar, não já com a simpatia, senão com a benevolência do mais alto espírito de Itaguaí'.²³⁶ Here, the reference to 'alto espírito' suggests that the barber wishes to be part of an enlightened despotism – or the 'spiritual power' of Bacamarte, in other words, of a higher class of men. However, Bacamarte, thinking

²³¹ Assis, 'O Alienista', p. 273.

²³² Assis, 'O Alienista', p. 274.

²³³ Michael Ferber, 'Purple' in *A Dictionary of Literary Symbols* (Cambridge: Cambridge University Press, 1999), p. 161.

²³⁴ Assis, 'O Alienista', p. 275.

²³⁵ Assis, 'O Alienista', p. 277.

²³⁶ Assis, 'O Alienista', p. 277.

about his proposal, states: ‘os sintomas de duplicidade e descaramento deste barbeiro são positivos’.²³⁷ The qualification of Porfírio’s ‘descaramento’ and ‘duplicidade’ as ‘positivos’ suggests the slippery and highly flexible nature of positivist principles, in which progress comes to be linked to regression (a return to the same, not unlike the ‘regresso’ home) and truth with duplicity and authoritarianism. While Bacamarte’s positivism was extremist and ‘alienated’, Porfírio’s emancipation and equality also became so.

Porfírio’s alliance with Simão enhances rather than undermines the doctor’s authority and allows Bacamarte to study and intern fifty members of the new government. However, Bacamarte’s renewed importance causes yet another uprising, and another ‘barbeiro’, João Pina, ascends to power. No sooner does Pina take office than he is overthrown by Viceroy troops who restore the original order. Amidst this rapid exchange of rulers, Itaguaí confers Simão with ‘o grau máximo da influência’.²³⁸ Simão then proceeds to confine Crispim, whose fear of ‘terror’ led to his betrayal, to which Bacamarte replies ‘o terror é o pai da loucura’.²³⁹ From this moment on, through ‘a coleta desenfreada’²⁴⁰ Simão interns most of the village, including his wife. Appropriately, since Bacamarte has not become a literal father, his symbolic status of ‘pai do loucura’ becomes excessive and punitive. Prefigured in the passage in which Simão rides towards the future (Chapter IV), Bacamarte’s supremacy near the end of the story finalises the satirical allegory of Comte’s ‘law of three stages’, since both characters and readers are finally in the most advanced stage, which proves to be regressive and even reactionary. Here, the doctor, like Quijote, attacks windmills of illusionary madness, caused by his own insanity and extremism.

However, an unexpected reversal of order causes the hourglass plot structure to ‘capsize’. In Chapter XI, the doctor sends an official memorandum to the government announcing the discharge of all his patients. This document paradoxically ratifies the theory of ‘insânia’, arguing that a disequilibrium of mental faculties may be considered normal and that mental equilibrium should be considered pathological. After this new turn, Bacamarte keeps pace with this classificatory zeal by distinguishing his patients as ‘modestos’, ‘tolerantes’, ‘verídicos’, ‘simples’, ‘leais’, ‘magnânimos’, ‘sagazes’ or ‘sinceros’.²⁴¹ Bacamarte’s classification is not only consistent with the penchant in Comtean Positivism for taxonomies and hierarchies but also foreshadows the present-day criticism of the *Diagnostic and*

²³⁷ Assis, ‘O Alienista’, pp. 277, 278.

²³⁸ Assis, ‘O Alienista’, p. 278.

²³⁹ Assis, ‘O Alienista’, p. 279.

²⁴⁰ Assis, ‘O Alienista’, p. 279.

²⁴¹ Assis, ‘O Alienista’, p. 284.

Statistical Manual of Mental Disorders (DSM). According to Andrade et al.,²⁴² the manual, initially published in 1952, has been used by specialists to identify and classify mental illnesses. However, its reductive tendency to objectify and subjugate patients has made it the object of numerous revisions. The psychiatrist Elizabeth Fátima Teodoro and colleagues claim that the DSM has been reassessed by contemporary studies that challenge traditional views of ‘normality’ and ‘abnormality’. For Teodoro, the DSM dictates that ‘tudo que foge ao padrão da normalidade vigente ... aquilo que não está dentro do modelo social, [e] encontra-se à margem ... é considerado louco, (a)normal ou deficitário’.²⁴³ In this sense, as Teodoro concludes, ‘O Alienista’ is a reminder that even though contemporary psychiatry has overcome the modern tendency to incarcerate patients, it is still in many respects imprisoned by medical and disciplinary discourses. In light of these readings, it is possible to observe that Machado foresaw one of the problems of positivist methodology: its tendency to create not only strict classifications, but also hierarchies of beings – via phrenology and racial theories.

Bacamarte’s theory, however, still needs its ‘plus ultra’, a definite breakthrough which would synthesise his studies. In the final chapter, after contemplating his achievements, the narrator informs the readers that:

Simão Bacamarte achou em si os característicos do perfeito equilíbrio mental e moral; pareceu-lhe que possuía a sagacidade, a paciência, a perseverança, a tolerância, a veracidade, o vigor moral, a lealdade, todas as qualidades enfim que podem formar um acabado mentecapto. Duvidou logo, é certo, e chegou mesmo a concluir que era ilusão; mas, sendo homem prudente, resolveu convocar um conselho de amigos, a quem interrogou com franqueza. A opinião foi afirmativa. — Nenhum defeito? — Nenhum, disse em coro a assembléia.²⁴⁴

The narrator, through an exaggerated, repetitive and satirical insistence on Simão’s perfection, summarises the doctor’s presumption: Bacamarte himself has all the qualities of a madman. The doctor is, therefore, the only insane individual in Itaguaí, the only person who needs to be examined and interned in Casa Verde. Alone and proud, Bacamarte locks himself up and dies trying to understand his madness. The conclusion of ‘Insânia’ represents Bacamarte’s capitulation to his own extreme and dogmatic positivism: after

²⁴² Andrade, p. 44.

²⁴³ Elizabeth Fátima Teodoro, Mardem Leandro Silva, & Daniela Paula de Couto. ‘Do dispositivo psicopatológico: a loucura entre os muros do discurso’, *Revista Latinoamericana de Psicopatologia Fundamental*, 22.3 (2019), 457-481 (p. 437) <<https://doi.org/10.1590/1415-4714.2019v22n3p457-4>> [Accessed 15 September 2020].

²⁴⁴ Assis, ‘O Alienista’, p. 278.

encapsulating himself in a vicious cycle of experiments and obsessions, he unites theory with practice.²⁴⁵ Thus, the subject becomes the ultimate object of his own work.

The allegorical relation of 'O Alienista' with positivism in Brazil is marked by its duality. As the historian of science Simon Schwartzman notes, at the same time that positivism 'encouraged Brazilians to accept the new techniques and knowledge that had dominated the European intellectual scene',²⁴⁶ it 'brought with it a vision that had little to do with Brazil's particular reality and opposed the manner by which scientific activities developed in Europe'.²⁴⁷ Schwartzman also cites the nineteenth-century positivist writer, Benjamin Constant, who observed that positivism in Brazil had acquired the status of a secular religion, 'the most rational, the most philosophical, and the only one that emanates from nature', and Augusto Comte was seen as a wise man, whose 'vast intelligence allowed him to leap centuries into the future seizing science in its definite form and giving us, through his scientific religion, mankind's definite religion'.²⁴⁸ The 'definite' adjective that Constant used to characterise Comtean positivism offers us a clue to the critique of Machado's story: Simão is ironically a 'definite', evolved and perfect human being, who is trying to change the underdeveloped and theological village of Itaguaí. The result is madness: a country caught between colonialism and modernity, trying to emulate a modern and progressive philosophy of progress, a philosophy which is problematic for creating a linear and evolutive view of history, human intelligence, social roles and societies.

* * *

The last chapter of 'O Alienista' is entitled 'Plus Ultra', a reversal of the phrase 'non-plus ultra' (nothing further beyond), commonly attributed to Hercules, who was said to have inscribed it on the Straits of Gibraltar, demarcating the limits of Europe in the ancient world.²⁴⁹ According to historian Earl Rosenthal, ancient sources claim that the hero 'set up the columns at the farthest reaches of Africa and Europe to commemorate his victorious journey to those far-off points and the many Labours performed along the way'.²⁵⁰ The motto was reinterpreted during the Bourbon dynasty when King Charles printed both the

²⁴⁵ 'Reuno em mim mesmo a teoria e a prática'. Assis, 'O Alienista', p. 278.

²⁴⁶ Schwartzman, p. 74

²⁴⁷ Schwartzman, p. 74

²⁴⁸ Constant, cited Schwartzman, p. 75.

²⁴⁹ Earl Rosenthal, 'Plus Ultra, Non plus Ultra, and the Columnar Device of Emperor Charles V', *Journal of the Warburg and Courtauld Institutes* 34 (1971), 204–28 (p. 210) <<https://doi.org/10.2307/751021>>

²⁵⁰ Rosenthal, p. 210.

Herculean Columns and the adagio ‘plus ultra’ on the Spanish flag to reflect the discoveries by Spanish explorers. For the critic Mary T. Ferer:

The adoption of this device signalled Charles’s intent to extend his Empire beyond the “boundaries of the antique world” and came to symbolize his vision for his Empire, signifying his intention of retaking the Holy Land from the Turks and expanding his Empire to the New World.²⁵¹

The phrase is therefore associated with geographical boundaries, heroic deeds and colonial discoveries, which reach beyond what is imaginable to Europeans. However, in ‘O Alienista’, the phrase represents Bacamarte’s journey of isolation and seclusion, in other words, an inwards retreat from both research and experimentation or, indeed, discoveries. Such a retreat can be read as a symbolic rejection of previous research, which configures yet another ironic situation, since the doctor’s ‘plus ultra’ promotes no revolutionary social changes but is rather an individual reflection on his psychological state. Furthermore, by recognising that he is the only madman in Itaguaí, Bacamarte is also rejecting positivism’s theoretical framework and attempt to configure a ‘perfect’ society – in a collective sense – in which humans would have reached an evolved stage of being. In the case of Bacamarte, he is the only one capable of achieving this stage, even though it means his isolation and death.

The end of Simão Bacamarte as a symbolic disavowal of positivism reinstates the ‘Tradição de La Mancha’, for it also recalls the last chapter of *Don Quijote*. Alonso Quijano, on his death bed, rejects his titles and recognises that his obsessive reading and search for adventure have caused him harm:

ya soy enemigo de Amadís de Gaula y de toda la infinita caterva de su linaje; ya me son odiosas todas las historias profanas de la andante caballería; ya conozco mi necesidad y el peligro en que me pusieron haberlas leído; ya, por misericordia de Dios escarmentando en cabeza propia, las abomino.²⁵²

In his repudiation of chivalric romances, Quijano restores his own narrative importance as a character who can challenge the homogenous status of previous literary movements and narratives. In other words, his quests and (his)stories question textual hierarchies and power. As Alonso states: ‘Los [cuentos] de hasta aquí —replicó don Quijote— que han sido verdaderos en mi daño, los ha de volver mi muerte, con ayuda del

²⁵¹ Mary Tiffany Ferer, *Music and Ceremony at the Court of Charles V.* (Woodbridge: The Boydell Press, 2012), p. 4.

²⁵² Miguel de Cervantes, *Don Quijote de La Mancha* <<https://cvc.cervantes.es/literatura/clasicos/quijote/edicion/parte2/cap74/default.htm>> [accessed 20 June 2022] (para 9 of 19).

cielo, en mi provecho.²⁵³ Additionally, the very last paragraph of *Don Quijote* reestablishes the importance not only of Quijote but also of his narrative: ‘Para mí sola nació don Quijote, y yo para él’.²⁵⁴ Similarly, the narrator of ‘O Alienista’ wishes to change the hegemonic discourse of an imported positivism by showing that Bacamarte has also renounced its messianic social powers when he decides to abandon the world happily and study himself:

Era decisivo. Simão Bacamarte curvou a cabeça juntamente alegre e triste, e ainda mais alegre do que triste. Ato continuo, recolheu-se à Casa Verde. Em vão a mulher e os amigos lhe disseram que ficasse, que estava perfeitamente são e equilibrado: nem rogos nem sugestões nem lágrimas o detiveram um só instante.²⁵⁵

Although Bacamarte seems content to renounce the world, family and friends, his symbolic rejection of positivism recalls Quijano’s abomination of chivalric romances. The tragic-comic tale of Doctor Bacamarte also serves as an example of and a challenge to unquestioned discourses, or even the dangers of extreme rationality. As the critic Boris Schnaiderman remarks: ‘com “O Alienista”, Machado se inscreve entre os que souberam pressentir que a relação entre o racional e a loucura não se enquadra nas normas rígidas que se pretendia encerrá-la’.²⁵⁶ I would add that the narrator questions Comte’s ‘rigid’ social theories of emancipation to highlight allegorically that, in Brazil – a country still dominated by colonial, racial and power hierarchies – imported theories should be contextualised and democratised before being forcibly applied to society.

The story highlights how individual aspirations and social change do not always coincide. The ‘plus ultra’, the beyond, is perhaps left to the reader, who may ponder and evaluate the rise of extreme or radical applications of science. The allegorical fragments – or ruins – of European and Brazilian intellectual history remind the reader of the ultimate arbitrariness of power and how, at different times and in different places, religion and science may serve inglorious projects.

²⁵³ Cervantes, *Don Quijote*.

²⁵⁴ Cervantes, *Don Quijote*.

²⁵⁵ Assis, ‘O Alienista’, p. 278.

²⁵⁶ Boris Schnaiderman, “O Alienista”, Um Conto Dostoievskiano?, *Teresa*, 6-7 (2005), 268-73 (p. 272) <<https://www.revistas.usp.br/teresa/article/view/116625/114220>> [accessed 20 June 2022].

2. SOCIAL LABORATORIES: COLONIAL EXPERIMENTS

In *Os Sertões* (1902), an historico-sociological account of the separatist rebellion ‘Canudos’ (Bahia, 1896), the journalist and writer Euclides da Cunha described the Brazilian ‘sertanejo’ (typical dweller of the hinterlands of Brazil) according to a mythic paradigm:

O sertanejo é, antes de tudo, um forte ... A sua aparência, entretanto, ao primeiro lance de vista, revela o contrário ... É desgracioso, desengonçado, torto. Hércules-Quasímodo, reflete no aspecto a fealdade típica dos fracos.²⁵⁷

Cunha intermingled the Herculean strength of Greco-Roman myth with the monstrosity of the Romantic hero created by Victor Hugo (1802–1885) in *Notre-Dame de Paris* (1831) to describe the Bahian insurgents – mostly Afro and Indigenous descendants – who resisted the Republican government’s militia and pleaded for social justice. Cunha used a contradictory comparison to characterise members of the rebellion, and the metaphor implicitly revealed an intriguing duality in the intellectual thought which inspired him. At the same time that the Brazilian intelligentsia aspired to install an enlightened republic, strong and mighty, which would adopt and adapt European thought to contemporary reality, it also excluded the masses, deeming them weak, incapable and unfit. Antonio Candido exposes this paradox in an article appropriately entitled ‘Perversão da *Aufklärung*’.

o saber seria difundido entre todos, a partir das luzes de uns poucos. Esta era a missão das elites, como se elas dissessem: “Devemos possuir os instrumentos do poder, porque sabemos, e como sabemos, levaremos os outros ao saber, que é a felicidade. Confiem em nós.” Mas essas convicções e atitudes de cunho acentuadamente ideológico tiveram, ao contrário, a consequência de fechar e restringir a iniciação na cultura intelectual, bem como o seu uso social e político. De ideal ilustrado, teoricamente universal e altruísta, ele se tornou em boa parte um saber de classe e de grupo, um instrumento de dominação que serviu por sua vez para segregar o povo e mantê-lo em condição inferior pela privação do saber.²⁵⁸

Without dismissing the selfless, even noble, impetus of the Brazilian intelligentsia, Candido argues that colonial classicist ideology prevented these intellectuals from questioning their privileged position and truly spreading and democratising knowledge.

One of the developments of the so-called perversion of Enlightenment was the advancement of a specialised ‘scientific’ form of racial thinking at the end of the nineteenth

²⁵⁷ Euclides Cunha, *Os Sertões* (São Paulo: Montecristo Editora, 2012), p. 144.

²⁵⁸ Antonio Candido, *Textos de intervenção* (São Paulo: Ed. 34 & Duas Cidades, 2002), p. 321.

century. As noted previously, science aided thinkers, intellectuals, physicians and anthropologists to solidify their social power through a hierarchy of race and levels of instruction. As the historian Marcos Chor Maio argues:

Brazilians adopted a heterodox approach to the scientific racism theories of the second half of the 19th century. The dilemma involved dialoguing with these theories without entirely accepting the thesis of the nonviability of a nation formed by the mixture of white, black, and indigenous populations under a tropical climate. Although it was not an original solution for the country, the theory of “whitening,” notably advocated by the Sergipano literary critic Silvio Romero (1851–1924), was one of the prevailing responses.²⁵⁹

The dilemma that the Brazilian scholarly classes faced was part of an intricate process of the reinterpretation of European discourses, which involved a careful examination of the country’s biological and ethnographical composition – areas of study which, according to Lilia Schwarcz, were connected.²⁶⁰ The historian quotes the example of the naturalist Rodolpho von Ihering who argued that the evolution of clams was part of a broader phenomenon that encompassed human beings.²⁶¹ Such reasoning suggests that Charles Darwin’s biological model of evolution, which argued for the survival of the fittest, was appropriate to humanity: ‘von Ihering was working with a social evolutionist interpretation the basis of which was not religious but scientific and positivistic.’²⁶² The most important institutions to propagate evolutionary biology and anthropology in the nineteenth century were the Museu Nacional, the Museu Paulista and Museu Paraense de História Natural. With publications and collective projects, these institutions became the basis for natural science and ethnography in the country.

The development of museums in Brazil is also connected to the establishment of a ‘laboratory of experimental physiology, and the launching of a science journal in 1876 [which] energised the [National] museum and cleared the path for its naturalist members to advance their professionalisation’.²⁶³ Financed by the Imperial government and the Ministry of Agriculture, its administrators – the Brazilian physician João Baptista Lacerda and the French physiologist Louis Couty – argued for a national science, which would be

²⁵⁹ M. Maio, R. Wegner & V. Sebastião de Souza, ‘Race, Science, and Social Thought in 20th-Century Brazil’ in *Oxford Research Encyclopedia of Latin American History* [online], <<https://oxfordre.com/latinamericanhistory/view/10.1093/acrefore/9780199366439.001.0001/acrefore-9780199366439-e-850>> [Accessed 1 February 2022].

²⁶⁰ Schwarcz, *The Spectacle*, p. 91.

²⁶¹ Schwarcz, *The Spectacle*, p. 91.

²⁶² Schwarcz, *The Spectacle*, p. 91.

²⁶³ Regina Horta Duarte, ‘An Irreplaceable Loss: The National Museum and Nation Building in Brazil’ <<https://uapress.arizona.edu/2018/09/an-irreplaceable-loss-the-national-museum-and-nation-building-in-brazil>> [Accessed 02 February 2022].

potentially profitable for the country's economic and social welfare.²⁶⁴ Couty stressed that 'um povo, um grande povo que deseja manter-se e prosperar não deve aproveitar-se somente dos trabalhos científicos dos vizinhos [...] tanto mais descobertas e novos progressos uma nação dá as outras, quanto mais rica se torna'.²⁶⁵ The historian Vimieiro Gomes contends that the research that was performed by the National Museum gave priority to national topics, such as the physical effects of toxic plants and the nutritional value of coffee, mate herb and beef jerky, in addition to the physiological effects of the climate and environment.²⁶⁶ The choice of topics revealed the economic interests behind the scholarly endeavours.

Intertwining various scholarly impetuses – political, social and economic – the two stories examined in this chapter, 'A Sereníssima República' (1882) and 'Ideias de Canário' (1899), engage with the scientific developments of the period and, more precisely, the rise of physiological experimentation and theoretical and practical research at the National Museum. However, Machado de Assis, following the idea of the mad doctor – as with Simão Bacamarte in 'O Alienista' – portrays the scientists Cônego Vargas and Macedo as obsessive scholars who dedicate themselves to the study of anthropomorphic features in spiders and birds. Vargas and Macedo encounter marvellous insects and animals in their experiments: advanced spiders who understand politics, and a talking bird who proudly philosophises about the world. However, instead of placing these creatures in a fable-like narrative, which would allow the reader to accept strange situations as part of a moral argument or social teaching, Machado places them in the context of a scientific paper and report. The mix of classical and modern elements evokes the idea of the fantastic which, according to Tzvetan Todorov, elicits the readers' hesitation.²⁶⁷ However, the strangeness of these fantastic stories creates a naturalist allegory of the intellectual and cultural history of Brazil which questions the country's origin and power structures. Grafting the tradition of the fable onto a then-contemporary context, Machado challenges the apparent forward-looking electoral reform of the period and re-signifies the country's national history.

Moreover, 'A Sereníssima República' and 'Ideias de Canário' relocate the concept of 'truth'. At the end of the nineteenth century, a period in which realist and naturalist literature claimed a universally accepted scientific knowledge, the narrators of the stories

²⁶⁴ A. C. Vimieiro Gomes, 'Chá, café, curare e clima tropical nos experimentos da fisiologia brasileira em fins do século XIX', *Revista Cienc Salud*, 13 (2015), 29-45 <<https://revistas.urosario.edu.co/xml/562/56242794003/index.html#fni>> [accessed 02 February 2022], (para 26 of 52).

²⁶⁵ Louis Couty cited in Gomes, (para 11 of 52).

²⁶⁶ Gomes, (para 26 of 52).

²⁶⁷ Todorov, p. 33.

provide a space for the ‘suspension of disbelief’. In a well-known phrase of Samuel Taylor Coleridge characterising Romantic poetry, ‘the suspension of disbelief’ occurs when apparent ‘supernatural or romantic’ characters captivate the reader to the extent that they suspend their beliefs. As Coleridge states:

My endeavours should be directed to persons and characters supernatural, or at least romantic, yet so as to transfer from our inward nature a human interest and a semblance of truth sufficient to procure for these shadows of imagination that willing suspension of disbelief for the moment, which constitutes poetic faith.²⁶⁸

From this quotation, it is possible to associate ‘belief’ with objective knowledge and personal experience. The reader, therefore, needs to suspend their beliefs in order to get emotionally involved with the story. In both ‘A Sereníssima República’ and ‘Idéias de Canário’ this ‘suspension of disbelief’ serves the function of enlarging the imaginary scope of scientific experiments and testing the boundaries of scientific knowledge as truth. Or, put simply, the tales discuss how a supposedly ‘scientific’ and ‘neutral’ narrative can bear traces of political and culturally inspired projects. In this sense, the Herculean magnitude of their enterprises was tinted with the vulnerable, Quasimodo-like social structure of the period, which centralised knowledge and power.

A SERENÍSSIMA REPÚBLICA: THE EXPERIMENTAL SCIENCE

‘A Sereníssima República’ (1882) is a story in the form of a conference paper which purports to describe the results of an experiment in natural science. The first-person narrator, Cônego (canon) Vargas, lectures on his latest discovery: a breed of ‘marvellous’ and ‘admirable’ spiders that can talk like humans and organise themselves in a form of society. The rationality of scientific thought is, therefore, accompanied by the uncanniness of talking spiders, which has a fantastic and anachronistic effect: while the story appears to be cutting-edge and modern in its discussion of ‘scientific’ ideas, it also uses the ancient form of the fable to teach a moral lesson.²⁶⁹ Using both academic and colloquial language, the story is divided into two parts. The first, delivered in a solemn and academic tone, presents the methodology of the research and its importance in relation to the international literature in

²⁶⁸ Samuel Taylor Coleridge, ‘Chapter XIV’ *Biographia Literaria* (1817) <<https://web.english.upenn.edu/~mgamer/Etexts/biographia.html>> [Accessed 27th June 2022].

²⁶⁹ ‘Fable’, in *The Penguin Dictionary of Literary Terms and Literary Theory*, ed. by J. A. Cuddon (London: Penguin Books, 1998), p. 300.

this field. The second, delivered in an anecdotal register, describes the canon's experiment – the introduction and development of a republican form of representative government into the community of spiders. Tellingly, the story ends not with a conclusion but, rather, with an epigram, described by Baldick as 'a wittily condensed expression in prose',²⁷⁰ which draws on the tradition of the fable but also poses a question to the reader.

As Machado stresses in the endnotes of *Papéis Avulsos* (1882) – the volume in which the story appears – 'A Sereníssima República' is an allegory of electoral processes and reforms in Brazil at the end of the nineteenth century: 'há um sentido restrito – as nossas alternativas eleitorais. Creio que terão entendido isso mesmo, através da forma alegórica'.²⁷¹ In Machado's note, it is clear that the author is elaborating on the fable, which, according to Todorov, 'is the genre that comes closest to pure allegory in which the first meaning of the words tends to be completely effaced'.²⁷² By explicitly invoking allegory, Machado directs his readers to a relatively 'restricted' political and historical field, possibly likening Vargas to a coloniser and the spiders to the Brazilian people. However, since Machado uses the expression 'sentido restrito' (restricted sense), it is worth enquiring whether there is a 'sentido irrestrito' (unrestricted sense) to the story: is it possible that the allegorical cast of the story, rather than restricting and closing down meaning may, in fact, open it up to other interpretative possibilities?

The question is motivated, somewhat paradoxically, by the limited attention that 'A Sereníssima República' has received from critics. The historian Daniela Magalhães da Silveira sees the story as an illustration of how the newspapers of the period portrayed the electoral reforms of 1881, known as the Lei Saraiva, which introduced the direct vote, but excluded women and illiterate people. She contends that science, both in politics and in the short story, comes to function as a tool 'com o intuito de fazer calar toda e qualquer divergência'.²⁷³ The literary critic Vinicius de Carvalho notes, however, that the story constitutes an ironic criticism of Latin American 'democratic' political systems marked by 'a corrupção e o jogo de interesses'.²⁷⁴ If Silveira adheres to the allegorical-historical interpretation provided by Machado, Carvalho deliberately disregards the author's note

²⁷⁰ 'Epigram', in *The Oxford Dictionary of Literary Terms*: Oxford University Press [online], <<https://www-oxfordreference-com.ezp.lib.cam.ac.uk/view/10.1093/acref/9780199208272.001.0001/acref-9780199208272-e-395>> [Accessed 22 September 2020].

²⁷¹ Assis, 'Notas de Papéis Avulsos', p. 362.

²⁷² Todorov, p. 64.

²⁷³ Silveira, p. 165.

²⁷⁴ Vinicius Mariano Carvalho, 'Quando a consulta popular é uma fábula – O conto Sereníssima República de Machado de Assis como interpretação da democracia direta na América Latina', *Diálogos Latinoamericanos*, 12.18 (2011), 81-89 (p. 84) <<https://tidsskrift.dk/dialogos/article/view/113435>> [Accessed 11 June 2020].

and makes a sweeping claim that politics, in general, is corrupt. In their scrutiny of the 'historical' and 'universal' appeal of the story, they neglect, however, a critical aspect: the uneasy clash between the modern order, symbolised by the scientific language of an academic paper, and the old order, epitomised in the form of an allegorical fable. This hybridisation, as the sociologist Raymundo Faro observes with regard to the period, 'projeta, no ponto de vista da encruzilhada, o encontro de dois mundos, o mundo que se despede e o mundo que chega'.²⁷⁵ While Faro refers to the emergence of Republican ideas and the decline of the monarchy, the same can be argued for the rise of science and the decline of religion. Machado presents the two orders as simultaneously overlapping and in conflict: the scientist is also a clergyman; the spiders are at once advanced and 'primitive'; the political system is modern but modelled on ancient Venice – 'La Serenissima'. This series of contradictions effectively opens the allegory to a pluralistic and unrestricted reading, in relating production in institutional power structures to complex historical processes of meaning.

With a focus on the tensions and conflicts between the old and the new, this analysis will first elucidate the most obvious layer of allegorical meaning – the discussion of the introduction of the Lei Saraiva – as well as the relevant historical debates, which involved political discussions on the types of citizen eligible to vote. Second, it will demonstrate how the figures of the scientist and the spider, along with their intertextual references, engage with Eurocentric scientific and political theories of the late nineteenth century, which tended to regard women and members of the lower classes and racial minorities as inferior beings. Third, it will address the notion that the tension between science and politics in the story mimics that between reason and unreason. In so doing, our reading does not wish to 'bury an obviously universal author in the particularities of a national history',²⁷⁶ as Schwarz warns, but rather to show how these same particularities of national history are what gives Machado a broader universal appeal.

In the first part of the hybrid 'academic paper', Vargas establishes a rapport with his audience through four evocative elements: 'meus senhores'; 'nosso país', 'simpatia pessoal' and 'curiosidade científica'. These four elements loosely correspond to questions of gender, national identity, community and intellectual interest, and build the foundations of a

²⁷⁵ Faoro, p. 15.

²⁷⁶ In his debate regarding opposing readings of Machado de Assis, Schwarz observes that international criticism tends to disregard the particularities of the Brazilian context. Critics including Harold Bloom and Helen Caldwell, despite their significant contribution to the study of Machado de Assis, have focused on the author's relationship to English-language writers such as Shakespeare and Swift. Roberto Schwarz 'Competing Readings', trans. by Nick Caistor, *New Left Review* 48 (2007), 85-107 (p. 93) <<https://newleftreview.org/issues/II48>> [Accessed 11 June 2020].

particular class that Lilia Schwarcz (amongst many others) terms ‘men of science’.²⁷⁷ Academically guided by ‘evolutionist and Darwinist models, by this time generally discredited throughout Europe’,²⁷⁸ these men, as Schwarcz notes, ‘struggled for the scientific progress of the nation’.²⁷⁹ Dominated by men, Brazilian scientific institutions such as the Medical School of Rio de Janeiro were, as Nancy Stepan argues, ‘plagued by inadequate clinical and laboratory facilities, ... broken and incomplete equipment, facilities, bad teaching, absent professors and absent students’.²⁸⁰ Given the unstable material conditions of Brazilian science, ‘researchers consumed far more scientific manuals and handbooks than monographs and original research’²⁸¹ and generated more ‘erudite philosophism’²⁸² than serious practical commitment to empirical observation. One area that did flourish, however, was the field of amateur naturalism, which did not depend on ‘sophisticated mathematical training’²⁸³ or well-equipped institutions. As Nancy Stepan goes on to argue, it also ‘appealed to the utilitarian interests of nationalist governments’,²⁸⁴ since plants and animals could be produced, consumed and exported with relative ease. In this sense, Vargas’s opening words seem subtly to evoke the complex state of science in Brazil at the end of the nineteenth century.

After appealing to a sense of shared identity with his audience, Canon Vargas states that he has been working on the experiment for a few years and is eager to disseminate his findings because the *Globo* newspaper has reported that English scholars have been progressing in their study of talking flies and insects. The scientist also praises the physicist Ludwig Büchner as an inspiration, since the German naturalist’s *Mind in Animals* (1880) addressed the biological and social structures of ants, termites, bees, wasps, spiders and beetles. Interestingly, Vargas uses ideas and concepts developed by Büchner to validate his study. However, the Brazilian naturalist has an advantage over European scholars: he studies not only the biological and social organisation of the spiders but also their language and their uses and misuses of knowledge and power. He presents himself as being, therefore, more thorough and accomplished than his European counterparts.

Vargas, after effectively praising himself, proceeds to praise his experimental subjects:

²⁷⁷ Schwarcz, *The Spectacle*, p. 38.

²⁷⁸ Schwarcz, *The Spectacle*, p. 39.

²⁷⁹ Schwarcz, *The Spectacle*, p. 39.

²⁸⁰ Stepan, p. 54.

²⁸¹ Schwarcz, *The Spectacle*, p. 30.

²⁸² Schwarcz, *The Spectacle*, p. 30.

²⁸³ Stepan, p. 26.

²⁸⁴ Stepan, p. 26.

A aranha parece-vos inferior, justamente porque não a conheceis... A aranha, senhores, não nos aflige nem defrauda; apanha as moscas, nossas inimigas, fia, tece, trabalha e morre. Que melhor exemplo de paciência, de ordem, de previsão, de respeito e de humanidade? Quanto aos seus talentos, não há duas opiniões. Desde Plínio até Darwin, os naturalistas do mundo inteiro formam um só coro de admiração em torno desse bichinho, cuja maravilhosa teia a vassoura inconsciente do vosso criado destrói em menos de um minuto.²⁸⁵

This passage, with its anthropomorphic presentation of the arachnids, reflects Büchner's initial description of spiders:

Spiders have also received justice from teachers in the earliest times. King Salomon recommended them to his countries as a model of industry, skill, prudence, self-restraint and virtue; and Aristotle, as the oldest naturalist, gave them his full attention. The web of the spider, which it spins in the most different places for catching its prey, has attracted most notice, and it has been regarded, like the cells of the bee, as the result of a peculiar inborn and instinctive artistic impulse.²⁸⁶

Machado de Assis is likely to have modelled his story on Büchner's study since, according to José Luis Jobim, Machado possessed a copy of the French translation of *Mind in Animals*, *La vie psychique des bêtes*, published by Garnier in 1881.²⁸⁷ Machado's appropriation of scientific discourse seems to be parodic, especially in invoking a universal and transnational notion of scientific progress. Whatever the case, Vargas and Büchner both claim that spiders have fascinated scholars from antiquity (King Solomon, Aristotle and Pliny) to modernity (Darwin). They equally praise the spider's industry and moral compass. However, Vargas differs from Büchner in stating that the 'vassoura inconsciente do vosso criado' destroys the spider's web. In comparison to Büchner's, this statement reduces the servant to a broom and adds a national and class dimension to his paper – at this time in Brazilian history, the servant is probably an enslaved person or low-income worker. The seemingly universal academic tone of the report is disrupted by the expression 'vassoura inconsciente', which is not in the original by Büchner, but which introduces an unsettling narrative of class and race. Vargas's mention of Brazilian reality is the first of many disruptions to universalistic claims by introducing idiosyncrasies of nationality which implicitly critique the adoption of scientific discourses in Brazil.

²⁸⁵ Assis, 'A Sereníssima República', p. 336.

²⁸⁶ Ludwig Büchner, *Mind in animals*, trans. by Annie Wood Besant (London: Freethought, 1880), p. 314.

²⁸⁷ José Luis Jobim, *A Biblioteca de Machado de Assis* (Rio de Janeiro: 2001), p. 34.

After establishing a sympathetic ('simpatia pessoal') connection with his listeners, the canon describes his experiments with the spiders. Vargas tells his audience that he became interested in them on observing this 'marvellous' species in his garden – another reference to a domestic environment. After examining the spiders' behaviour, the canon came to believe they had a complex language, which he set out to learn and systematise into grammar. It is at this moment that Vargas's descriptive scientific tone, consonant with *Mind in Animals*, starts to morph into an anecdotal fable. Vargas begins his experiment by introducing a new form of government, characterised by indirect authoritarianism. He then approaches a few of the spiders, who eventually bring others. Astonished, they take the scientist for their god, due to his immense physical stature in comparison to theirs, his clothes and his command of their language. This belief works in Vargas's favour since he can more easily exercise his will vis-à-vis the spiders.

Duas forças serviram principalmente à empresa de as congregar: - o emprego da língua delas, desde que pude discerni-la um pouco, e o sentimento de terror que lhes infundi. A minha estatura, as vestes talaes, o uso do mesmo idioma, fizeram-lhes crer que era eu o deus das aranhas, e desde então adoraram-me. E vede o benefício desta ilusão. Como as acompanhasse com muita atenção e miudeza, lançando em um livro as observações que fazia, cuidaram que o livro era o registro dos seus pecados, e fortaleceram-se ainda mais na prática das virtudes.²⁸⁸

In addition to language, Vargas uses 'terror' to dominate the spiders. This word, used repeatedly by the narrator of 'O Alienista' to characterise Simão Bacamarte's scientific experiments, denotes that Vargas rules the spiders in a god-like manner. This self-portrayal, combined with the apparent innocence of the fantastic arachnids, echoes the myths of the 'discovery' of the New World, one of the best-known of which is that the Nahuas and the Mexican (Aztec) emperor Montezuma confused the Spanish invader Hernán Cortés with the god Quetzalcoatl. While, of course, tribal and colonial exploitation predated La Conquista, the historian Matthew Restall argues, this 'apotheosis narrative' is a product of the accounts of the Franciscans who wished to justify 'the divine approval of Christianization campaigns'.²⁸⁹ Restall contends that the selective interpretation of the Franciscans rested on a linguistic misunderstanding – the corruption of the word *teteuh* to *teules* ('dioses' – gods) – one example of a wider phenomenon of misinterpretation. The veiled allusion to a more distant colonial past provides the first hint of Machado's

²⁸⁸ Assis, 'A Sereníssima República', p. 337.

²⁸⁹ Matthew Restall, *Seven Myths of the Spanish Conquest* (Oxford: Oxford University Press, 2004), p. 113.

construction of a historical allegory: are the spiders a ‘new colony’, ruled and shaped, as previously intimated, by a ‘scientific’ conquistador?

The second part of the story, which more visibly takes the shape of a fable, appears to answer the preceding question: Vargas tests the cognitive capacity of the spiders by introducing a republican form of government. In his words, the Venetian mode – in which a *ballottino* (a randomly selected boy) draws the names of the candidates from an urn – is the most accurate because it excludes ‘o congresso da corrupção e da cobiça’.²⁹⁰ The highly contemporary Republican model references, albeit in a slightly different register, the conquests, as the once Aztec town of Tenochtitlán had been compared to Venice because of its canals and islands.²⁹¹ For the canon, the apparent aleatory nature of the election safeguards it from corruption and greed. Ironically, the Venetian Republic, although praised for its integrity and order, was in fact, as Robert Finlay has noted, characterised by ‘imperialism, corruption, and treachery’.²⁹² Nevertheless, Vargas is delighted with his creation and names the community the ‘Sereníssima República’, even as he notes that his work has not reached the same supposed perfection, since ‘os meus pupilos ... formam um povo recente, que não pode trepar de um salto ao cume das nações seculares’.²⁹³ The allusions to colonial domination and political treachery, allied with the establishment of a ‘foreign’ and ‘alien’ form of government in the ‘young nation’ of the spiders, mirror the colonisation process as well as the Comtean endorsement of a hierarchy of nation and races. The comparison is thus not only between colonial and European Renaissance forms of government, but also between the Brazilian Empire and its political history, which was dominated by corruption and betrayal.

The first association between the republic of the spiders and Second Empire Brazil, as noted, is the representative party system. According to Vargas, the spiders were divided between the Retilíneo and Curvilíneo parties. While the former party held that straight lines were best for spiderwebs, the latter believed that curved lines were better. In addition to these two parties, three other parties held slightly divergent views:

o misto e central, com este postulado: – as teias devem ser urdidadas de fios retos e fios curvos; é o partido reto-curvilíneo; e finalmente, uma quarta divisão política, o partido anti-reto-curvilíneo, que fez tábua rasa de todos os princípios litigantes, e

²⁹⁰ Assis, ‘A Sereníssima República’, p. 337.

²⁹¹ Restall, p. xv.

²⁹² Robert Finlay, ‘The Immortal Republic: The Myth of Venice during the Italian Wars (1494-1530)’, *The Sixteenth Century Journal*, 30.4 (Winter, 1999), pp. 931-944 (p. 932).

²⁹³ Assis, ‘A Sereníssima’, pp. 337, 338.

propõe o uso de umas teias urdidas de ar, obra transparente e leve, em que não há linhas de espécie alguma.²⁹⁴

The tone of the passage, which satirises the notion that abstract ideas can solve social problems, slyly criticises the political structures of Brazil at the end of the century. According to the pedagogue Michele Leão, the political structure of the Empire in the early 1860s was sustained by two official parties: ‘o Partido Liberal e o Partido Conservador’.²⁹⁵ Through indirect elections, the conservatives and liberals alternated in power, thereby sustaining the interests of the agrarian elite. However, after the Paraguay war of 1868, and on account of divergences in military strategy, Emperor Pedro II intervened in the system and appointed the Visconde de Itaboraí as the conservative head of the government to instil a semblance of political stability. The liberal party contested not only the Emperor’s choice, but also its legitimacy, and claimed that the monarch’s act characterised a crime of ‘estelionato eleitoral’.²⁹⁶ As well as the Emperor’s political manoeuvres, debate around electoral reform had been growing since at least the 1860s, when, according to Leão, ‘propagou-se a idéia de que a eleição indireta estava desprestigiada, por causa de excessos, por viciar e perverter as práticas políticas, por ser responsável por repressão e violência’.²⁹⁷ In this sense, the narrator allegorises the shifting political landscape of the Empire via the multiplicity of parties whose differences were in many respects minimal and perhaps inconsequential.

The second similarity between the ‘Sereníssima República’ and the voting system in Brazil concerns the corruption caused by patronage and self-seeking allegiances. In the short story, the spiders, obeying Vargas, weave electoral bags for the *ballotino* to collect, according to the Venetian model. From this moment on, a comedy of errors occurs in the form of acts of corruption. The spiders discover that the candidates have been introducing extra balls with the same name (clearly favouring one candidate), which they proceed to remedy by reducing the size of the bag. Since fewer candidates were then participating, they need to enlarge the voting bag. After a brief period of peace and the death of a magistrate, the voters must choose between two candidates, Hazeroth and Magog, the respective leaders of the Partido Retilíneo and Partido Curvilíneo. However, neither is elected since there is a

²⁹⁴ Assis, ‘A Sereníssima’, pp. 337, 338.

²⁹⁵ Michele de Leão, ‘Introdução do Voto Direto no Brasil e Exclusão dos Analfabetos do direito de votar: Progresso ou retrocesso?’ *Revista Ampliar*, 1.1 (2014), 1-14 (p. 2) <<https://gravatai.ulbra.tche.br/jornal/index.php/revistaampliar/article/view/29>> [Accessed 22 January 2019].

²⁹⁶ Alceu Ravanello Ferraro, ‘Educação, classe, gênero e voto no Brasil imperial: Lei Saraiva – 1881’, *Educar em Revista*, 50 (dec-2013), 181-206 (p. 185).

²⁹⁷ Leão, p. 3.

problem with the spelling of Hazeroth's and Magog's names on the balls, caused by corruption. As Vargas recollects:

Nem Hazeroth nem Magog foram eleitos. As suas bolas saíram do saco, é verdade, mas foram inutilizadas, a do primeiro por faltar a primeira letra do nome, a do segundo por lhe faltar a última. O nome restante e triunfante era o de um argentário ambicioso, político obscuro, que subiu logo à poltrona ducal, com espanto geral da República. Mas os vencidos não se contentaram de dormir sobre os louros do vencedor; requereram uma devassa. A devassa mostrou que o oficial das inscrições intencionalmente viciara a ortografia de seus nomes. O oficial confessou o defeito e a intenção; mas explicou-os dizendo que se tratava de uma simples elipse; delito, se o era, puramente literário. Não sendo possível perseguir ninguém por defeitos de ortografia ou figuras de retórica, pareceu acertado rever a lei. Nesse mesmo dia ficou decretado que o saco seria feito de um tecido de malhas, através das quais as bolas pudessem ser lidas pelo público, e, *ipso facto*, pelos mesmos candidatos, que assim teriam tempo de corrigir as inscrições.²⁹⁸

For all the attempts to achieve fair measurement and transparency, however, the problem creates an upheaval that is solved, once more, by an amendment to the size of the bag, which now needs to be made of a transparent fabric. The election is again compromised when a member of the assembly, Nabiga, takes advantage of the transparent bag and signals to the *ballottino* to select his name. The scheme is discovered, and the spiders introduce a system of monitors and change the bag back to its initial material. This endless cycle of voting, corruption and electoral reforms is portrayed as similar to the fraudulent Brazilian elections.

According to the political scientist Jairo Nicolau, corrupt parties dominated local elections in the Second Empire. In order to maintain their power and influence, they resorted to acts such as 'adulteração da lista de votantes; controle da mesa eleitoral; uso de ameaças e violências por intermédio de "capangas"; voto de eleitores fantasmas (o "fósforo"); adulteração das atas eleitorais'.²⁹⁹ In Brazil, the frequent election frauds were also the effect of an entrenched post-colonial patriarchal system. For the historian Richard Graham, imperial elections 'tested and displayed the local patron's leadership. Through a two-tiered system of indirect elections, voters chose the locally prominent electors to form the Electoral Colleges that would, in turn, choose Deputies to Parliament'.³⁰⁰ In a rural environment, a landowner 'expected to receive the loyalty of his free workers, or nearby small farmers and

²⁹⁸ Assis, 'A Sereníssima', p. 339.

²⁹⁹ Jairo Nicolau, *Eleições no Brasil: Do Império aos dias atuais* (Rio de Janeiro: 2012), Chapter 1, paragraph 73. EPUB file.

³⁰⁰ Richard Graham, *Patronage and Politics in nineteenth century Brazil* (Stanford: Stanford University Press, 1990), p. 3.

village merchants'.³⁰¹ In exchange, voters envisioned elections as 'uma ocasião para ganhar dinheiro fácil, roupas e, até mesmo, comida'.³⁰² In other words, the whole election was a transactional process. Against this socio-political backdrop, the series of events in 'A Sereníssima República' offers, as noted, an allegorised account of how self-seeking allegiances function in an electoral system in which candidates and voters can be both intimidated and motivated by personal interests.

The final act of corruption specifically connects the plot of the story to the electoral reform of the 1880s. After characterising the political system as an 'eterna malícia', Vargas recounts how the election of a public servant responsible for raising public revenues was once more disrupted. Two candidates disputed the vacancy, Caneca and Nebraska. The ball drawn from the bag was Nebraska's. However, through error, the last letter of his name was missing. Even with five witnesses, Caneca disputes the election to argue that the name on the ball was his own. He summons 'um grande filólogo' who demonstrates that Nebraska without the final letter 'a' means 'Caneca'. Unsurprisingly, the spiders change the electoral system once more, but Vargas notes how the bag continued to assume many shapes and sizes and to be the object of divergent 'interpretations'.

The presence of the 'great philologist' connects the disrupted elections of the spiders to the less peaceful ones in Brazil. In 1879, Emperor Pedro II summoned the Viscount of Sinimbu, an intellectual and liberal thinker, to provide an alternative to the two-tiered indirect voting system³⁰³ that excluded women and slaves. Sinimbu proposed that the intermediary commission be abolished but also that, in order to be able to vote, freemen had to have a minimum income of 400 thousand reis, be literate and not have a criminal record. If on the one hand, the measure seemed more direct, on the other it made the system more unequal and restrictive by increasing the monetary and educational demands for individual enfranchisement. The Viscount's reform was not, however, approved by the Chamber of Deputies, and the commander José Antonio Saraiva, in 1880, was commissioned to introduce yet another proposal. Following Sinimbu's discussion, Saraiva argued that voters should be able to write the names of their candidates and should have a minimum income of 200 thousand reis. Although it did not explicitly argue against the intellectual ability or capacity of the illiterate population to choose their representatives, Saraiva's final proposition, called the Lei Saraiva, still excluded the participation of those who could not

³⁰¹ Graham, p. 3.

³⁰² Leão, p. 3.

³⁰³ Leão, p. 3.

read or write.³⁰⁴ In their archival analysis of debates on the law in the Chamber of Deputies, the critics Leão and Ferraro stress that ‘o analfabetismo passa ... a ser identificado com a condição de ignorância, de cegueira, de pauperismo, de falta de inteligência e discernimento intelectual e ... incapacidade política’.³⁰⁵ Since education in the Brazilian Empire was disorganised and inefficient,³⁰⁶ the measure effectively meant that the elites would preserve their privileged role in the electoral process.

Maintaining Sinimbu’s structural hostility towards the illiterate and the less powerful – most obviously slaves and women – Saraiva’s law was approved in 1882. According to the pedagogue Alceu Ravanello Ferraro, Brazilian deputies sponsored a reactionary reading of the philosopher John Stuart Mill, a sympathetic although critical interlocutor of Auguste Comte.³⁰⁷ In his archival analysis, Ferraro affirms that the deputies addressed at least three of Mills’s political ideas: ‘1. Que só devem votar aqueles que pagam impostos; 2. Que só devem votar aqueles que sabem ler, escrever e executar as operações de aritmética ... 3. Que as mulheres devem ter o direito de voto.’³⁰⁸ The critic stresses that Brazilian politicians travestied and corrupted Mill’s ideas by ‘creating harsher mechanisms to prove minimal income’,³⁰⁹ excluding the illiterate from the right to vote and ignoring the participation of women. The result of this ultra-conservative interpretation of Mill’s ideas was that the 82.3% of the Brazilian population which was effectively illiterate was not allowed to vote. As Ferraro affirms, ‘num Império sem escolas, o que se queria era fechar para o povo a única escola possível: a escola do voto’.³¹⁰ Accordingly, the Lei Saraiva, far from widening the franchise, radically reduced the number of electors from 1,114,066 to 145,000, 1.5% of the total population.³¹¹

In light of the (mis)use of liberal philosophy by the Brazilian deputies, the presence of the ‘great philologist’ in ‘A Sereníssima República’ seems to allude to the intellectual (mis)appropriation of European theories. For example, the philologist rehearses an explanation for refuting the result of the election:

³⁰⁴ According to J. Nicolau in his examination of elections in Brazil, for the first time in history, illiterate people were prevented from voting in Brazil. J. Nicolau, *Eleições*, Chapter 1.

³⁰⁵ Michele de Leão & Alceu Ravanello Ferraro, ‘Lei Saraiva (1881): Dos argumentos invocados pelos liberais para a exclusão dos analfabetos do Direito de Voto’, *Educação Unisinos*, 16.3 (2012), 241-250 (p.243).

³⁰⁶ Leão, p. 3.

³⁰⁷ John Stuart Mill and Augusto Comte exchanged letters about science, politics and economics.

³⁰⁸ Alceu Ravanello Ferraro, ‘Educação, classe, gênero e voto no Brasil imperial: Lei Saraiva – 1881’, *Educar em Revista*, 50 (Dec 2013), 181-206 (p. 187).

³⁰⁹ Ferraro, p. 181.

³¹⁰ Ferraro, p. 193.

³¹¹ Leão, p. 12.

Logo, a falta é intencional, e a intenção não pode ser outra, senão chamar a atenção do leitor para a letra *k*, última escrita, desamparada, solteira, sem sentido. Ora, por um efeito mental, que nenhuma lei destruiu, a letra reproduz-se no cérebro de dois modos, a forma gráfica e a forma sônica: *k* e *ca*. O defeito, pois, no nome escrito, chamando os olhos para a letra final, incrusta desde logo no cérebro, esta primeira sílaba: *Ca*. Isto posto, o movimento natural do espírito é ler o nome todo; volta-se ao princípio, à inicial *ne*, do nome *Nebrask*. - *Cané*. - Resta a sílaba do meio, *bras*, cuja redução a esta outra sílaba *ca*, última do nome Caneca, é a coisa mais demonstrável do mundo. E, todavia, não a demonstrarei, visto faltar-vos o preparo necessário ao entendimento da significação espiritual ou filosófica da sílaba, suas origens e efeitos, fases, modificações, consequências lógicas e sintáticas, dedutivas ou indutivas, simbólicas e outras.³¹²

The philologist's explanation is mixed with psycho-medical arguments ('a letra reproduz-se no cérebro') and Hegelian philosophy³¹³ ('o movimento natural do espírito'), to create a nonsensical patchwork of sentences³¹⁴ that prevent ordinary 'spiders' from grasping its meaning. Additionally, as Silveira argues, the philologist uses his titles to impose his opinion and when 'não encontrava mais nenhum argumento, apelava para a falta de preparo de seus ouvintes'.³¹⁵ The dismissal of the audience in the excerpt, however, is not merely a rhetorical device, but rather an allegorical reminder that politicians, in the electoral reform, manipulated the Brazilian people's lack of instruction to impede them from voting.

Given the insistent cycles of fraud and corruption, Vargas distances himself from his experiment and concludes his lecture fable with an epigram, quoting a philosopher-spider named, suggestively, Erasmus:

vós sois a Penélope da nossa República, disse ele ao terminar; tendes a mesma castidade, paciência e talentos. Refazei o saco, amigas minhas, refazei o saco, até que Ulisses, cansado de dar às pernas, venha tomar entre nós o lugar que lhe cabe. Ulisses é a Sapiência.³¹⁶

The epigram complements the allegory of electoral processes in Brazil with the metaphor of Penelope, possibly referring to the lower stratum of the working classes and women, who were not allowed to participate in political decisions. While the spiders weave

³¹² Assis, 'A Sereníssima', p. 340.

³¹³ The German philosopher Georg Wilhelm Friedrich Hegel (1770-1831), in his *Phenomenology of Spirit* (1807), defined knowledge according to subjective and collective perceptions. The 'movement of the spirit' is the 'tracking of distinct patterns of mutual recognition between subjects—shapes of spirit—that forms the ground for the existence of those individual consciousnesses/self-consciousnesses'. In Paul Redding, 'Georg Wilhelm Friedrich Hegel', *The Stanford Encyclopedia of Philosophy* <<https://plato.stanford.edu/archives/spr2020/entries/hegel/>> [accessed 30 September 2020].

³¹⁴ 'Pastiche' in *The Penguin Dictionary of Literary Terms*, p. 644.

³¹⁵ Silveira, p. 168.

³¹⁶ Assis, 'A Sereníssima', p. 340.

countless voting ‘sacos’ in their various attempts to frustrate democracy, Penelope similarly weaves a burial shroud for her husband’s father to delay the advances of her suitors. The narrator seems to consciously refer to the same poetic allusion used by Homer in the *Odyssey*: when Telemachos wonders whether his mother has remarried, he sees his parent’s marital bed ‘empty but so holding cobwebs (*Odyssey* 16.35)’,³¹⁷ which reassures him of his mother’s fidelity. In the short story, the corruption of the potentially pure society of the spiders occurs at the moment when Vargas becomes the ‘god of the spiders’ and imposes a Venetian and, hence, alien European form of government which, in truth, was itself already corrupt. Despite their subjugation and the flaws of the system, the spiders carry on weaving. In Portuguese, the word ‘tecer’ shares the same Latin root as the word ‘texto’, text.³¹⁸ In this sense, the spiders may be understood as writing their own texts, their own narratives, similar to Penelope, who – despite being threatened by a male-dominant society – continues her creative expression, slowly weaving by day and slowly unweaving by night. Corruption is then transmuted into resistance: those who are excluded from the electoral reform should not give up: they should learn to weave their webs and write their texts in order to be able to inscribe themselves in the democratic process. Resistance is also seen in the myth of Arachne, a proud and talented woman who rivals the goddess Minerva in the art of weaving. Threatened by her skill, Minerva challenges Arachne to weave a perfect tapestry. While Minerva creates a glorious portrait of the gods, Arachne represents the gods’ abuses of mortals. Outraged by Arachne’s audacity and truthfulness, Minerva punishes Arachne by turning her into a spider. The myth of Arachne is transposed to ‘A Serenissima...’ and encourages readers to interpret the ‘text’ of continually-woven electoral bags as a process of reading, education and instruction.

Of course, even as the intertextual threads to Penelope and Arachne may convey, as indicated, a sense of resistance and hope, they may also reinforce the presence and power of a male-dominated social order. The critic Ingrid Holmberg argues that the symbolic treatment of spider webs in the *Iliad* and the *Odyssey* supports a powerful myth of a ‘masculine creator of metaphorical spider’s webs’.³¹⁹ For her, the Homeric narrative ‘manipulates and then obviates the feminine associations of a weaving spider by instantiating the masculine master craftsman and protector of the narrative and social order

³¹⁷ Homer, *Odyssey*, <http://perseus.uchicago.edu/perseus-cgi/citequery3.pl?dbname=GreekTexts&query=Hom.%20Od.%2016.35&getid=1> [accessed 21 September 2020].

³¹⁸ Texto: Vem do latim texere (construir, tecer), cujo particípio passado textus também era usado como substantivo, e significava ‘maneira de tecer’, ou ‘coisa tecida’, e ainda mais tarde, ‘estrutura’ <<https://www.dicionarioetimologico.com.br/texto/>> [Accessed 21 September 2020].

³¹⁹ Ingrid E Holmberg, ‘Hephaistos and Spiders’, *Phoenix*, 57. 1/2 (2003), pp. 1-17 (p. 15).

within and beyond the *Odyssey*'.³²⁰ Holmberg concludes that even though the female narrative disrupts the notion of a unified discourse, the disruption is ultimately powerless to defy the macro-narrative structured by the poet. In Machado's story, despite continuing to weave the voting bags, and thus maintaining the possibility of resistance and hope, the spiders are still subject to a superior order: the ever-observant controlling Vargas.

The ambiguity of resistance is also reinforced through the aforementioned reference to Desiderius Erasmus. As is well known, Erasmus was a Renaissance humanist who, despite denouncing abuses of power in the Catholic Church, was supported by its economic and political influence.³²¹ In his most famous work, *Stultitiae Laus* or *Moriae Encomium* (*In Praise of Folly*, 1511), disguised as 'madness', Erasmus criticised orthodox theologians by shedding light on the contradictions of the human mind and morals. In his allegories of Brazil's Second Empire, Machado assumes the voice of Erasmus, and his ironic praise of folly, in order to criticise an unorthodox and abusive form of scientific thinking, the philologist who single-handedly 'decides' the election by manipulating the facts. Ferraro's analysis of how the Chamber of Deputies corrupted the ideas of John Stuart Mill to exclude illiterate people and women from the electoral reforms demonstrates how 'men of science', to the degree that they belong to or identify with the elites, use their knowledge to advance their own interests. That said, the story also indicates how instruction can be used, cannily, as a weapon against empty or extreme scientific discourses. The 'call for action' of the short story is a reminder of the importance of universal education. However, this 'call' only became a reality in Brazil more than fifty years later, in 1934.³²²

The simple yet intertextually complex epigram³²³ reminds the reader of the structural duality of 'A Sereníssima República', which begins as an academic paper and ends as a fable. If an academic essay is directed to a highly specialised literate audience, the fable is an orally reproduced popular narrative. The duality, in a 'strict sense' (to use Machado's expression), demonstrates how intellectual discourse at times reduced participation in the electoral process, propping up a system of privileges over a less restrictive and more truly participatory democratic order. It is also a literary articulation of the Brazilian intellectual

³²⁰ Holmberg, p. 15.

³²¹ Erika Rummel, 'Desiderius Erasmus' in *The Stanford Encyclopedia of Philosophy* (Winter 2017 Edition), ed. by Edward N. Zalta <<https://plato.stanford.edu/archives/win2017/entries/erasmus/>> [accessed 30 September 2020].

³²² Ferraro stresses that 'os brasileiros teriam que aguardar até 1934 para ver assegurada na Constituição a obrigatoriedade escolar'. A. R. Ferraro, p. 201.

³²³ 'Vós sois a Penélope da nossa república, disse ele ao terminar; tendes a mesma castidade, paciência e talentos. Refazei o saco, amigas minhas, refazei o saco, até que Ulisses, cansado de dar às pernas, venha tomar entre nós o lugar que lhe cabe. Ulisses é a Sapiência'. Assis, 'A Sereníssima', p. 340.

and scientific landscape of the period: while it aspired to be ‘modern’ and ‘advanced’, in keeping with European academic practices, its internal contradictions, material poverty and patriarchal bent prevented it from achieving its stated aims. What is left, instead, is a fable about a still ‘primitive’ social order – that of the doctor – that clings to colonial hierarchies instead of democratising knowledge and instruction.

In conclusion, ‘A Sereníssima República’ is both an allegory of a specific historical episode in late nineteenth-century Brazil and a more general (if not indeed universal) account of the manipulation of knowledge by elites. If the analysis of ‘O Alienista’ shows how a mad scientist created an artificial society which could not sustain itself under its positivist pretences, ‘A Sereníssima...’ depicts a similarly artificial society, corrupted both from within and without. While Bacamarte dies alone, Vargas removes himself from the plot, which is completely taken over by the spiders. In so doing, the scientist leaves them to weave their way out of a problem that is largely of his making, until true science or a more truly collective practical mode of wisdom, ‘sapiência’, arrives.

The short story ‘Ideias de Canário’ appears in *Páginas Recolhidas* (1899), a volume published almost twenty years after *Papéis Avulsos*. Despite the long gap, ‘Ideias de Canário’, like ‘A Serenissima República’, also involves talking animals – in this case, an unnamed canary and his relationship with an amateur ornithologist named Macedo. Like the hybrid structure of ‘A Serenissima...’, ‘Idéias...’ constitutes a nested narrative. It opens with a third-person narrator who recollects the extraordinary tale: ‘tão extraordinário que ninguém lhe deu crédito’.³²⁴ The story then switches to the first-person narration of Macedo, who describes how he meets, buys and loses the precious bird, and plays with, amongst other ideas, the dichotomy between reason and unreason. While Macedo represents the discourse of science and reason, with observations, systematisations and conclusions, the talking bird symbolises the fabulous and irrational.

Critics Patrícia Librenz and Antonio Rediver Guizzo argue that the story deliberately mocks ‘os métodos de observação e experimentação das ciências naturais e do Positivismo nas ciências sociais’.³²⁵ Librenz and Guizzo stress that Machado adopted the structure of the fable as a critical response to the ‘scientific’ prose of the period which, following Comte, tended to substitute the ‘mysteries’ and ‘allegories’ of Romanticism for ‘os fatos, observáveis, documentáveis, analisáveis experimentáveis’.³²⁶ However, ‘Idéias de Canário’ is not simply an amusing mockery of scientific discourses and naturalist literary ideals; instead, it comments on two processes in the scientific construction of knowledge: 1) the Aristotelian inductive-deductive method of observing the world, which is reproduced and paraphrased by the canary; and 2) the Brazilian anthropological research of the nineteenth century, represented by Macedo. As previously argued, it seems that here too the author creates a tension between the two methodologies to criticise the state of the then-contemporary scientific institutions in Brazil. In the same way as the narrators of ‘O Alienista’ and ‘A Serenissima República’ enigmatically portrayed the conflict between the old colonial order and modern pursuits and theories, the narrator of ‘Ideias de Canário’ critiques Brazilian intellectuality. Through an allegorical fable, in which the bird and the scientist respectively represent the ongoing, complex old order and the new one, Machado discusses how ancient observational processes both fomented and contradicted naturalist and anthropological

³²⁴ Assis, ‘Ideias de Canário’, p. 589.

³²⁵ Patrícia Librenz & Antonio Rediver Guizzo, ‘Os contos insólitos “El Outro”, de Borges, e “Idéias de Canário”, de Machado: Desconstrução do Dogmatismo Científico’, *Raído*, 12.29 (Jan/Jun 2018), 37-49, (p. 41).

³²⁶ Massaud Moisés, *História da Literatura Brasileira* (São Paulo: Cultrix, 2001), II, p. 15.

research at the beginning of the museum era in Brazil. This present analysis will examine the plot of the story and highlight the instances when scientific methods are evoked. It will also demonstrate how the above-mentioned institutions hint at the kind of critique that Machado wished to advance.

In the opening of the story, Macedo states that he met the canary by chance. After falling from a tilbury carriage, Macedo finds himself in a second-hand shop ('loja de belchior'). While the shopkeeper dozes, Macedo gazes through a quirky selection of objects – pans, shoes and hats – and, in their midst, sees an old cage with the bird inside. He complains about human cruelty: 'quem seria o dono execrável deste bichinho, que teve ânimo de se desfazer dele por alguns pares de níqueis'.³²⁷ The bird is offended and rebukes him by saying, 'São imaginações de pessoa doente; vai curar-te, amigo'.³²⁸ The initial interaction between man and bird, to Macedo's surprise, is already marked by the canary's ability not just to speak but also to rebuke its human interlocutor. The bird adds that the owner of the shop is his servant, regularly bringing him food and water. Interested by the bird, Macedo asks him what he thinks of the world. The canary, conditioned by his caged circumstances, answers:

O mundo — redarguiu o canário com certo ar de professor —, o mundo é uma loja de belchior, com uma pequena gaiola de taquara, quadrilonga, pendente de um prego; o canário é senhor da gaiola que habita e da loja que o cerca. Fora daí, tudo é ilusão e mentira.³²⁹

The canary's description of his habitat along with its objects, materials and shapes, although detailed and precise, depends on his restricted and localised experience. The answer can similarly be interpreted as an attempt to recreate Aristotle's inductive method which, according to critic Hugh Gauch, featured the careful observation of natural elements such as plants and animals.³³⁰ For the Greek philosopher, the scientific method 'used inductions from observations to infer general principles, deductions from those principles to check the principles against further observations, and additional cycles of induction and deduction to continue the advance of knowledge'.³³¹ Although by no means infallible, Aristotle's method set the stage for subsequent observations of the natural world in time and space, yet the canary's deductions ring false since they stem from an extremely limited perspective: there is a world; all I see is a second-hand shop and a cage; therefore the world is a second-hand

³²⁷ Assis, 'Ideias de Canário', p. 590.

³²⁸ Assis, 'Ideias de Canário', p. 590.

³²⁹ Assis, 'Ideias de Canário', p. 590.

³³⁰ Hugh G Gauch, *Scientific Method in Practice* (Cambridge: Cambridge University Press, 2003), p. 45.

³³¹ Gauch, p. 45.

shop and a cage. This deductive form of thinking can lead to errors, for the bird's knowledge is limited.

Intrigued by the canary's articulate ability, Macedo decides to buy the bird and provide him with a more comfortable, and presumably more scientific, environment so that he can study the bird's thinking. Such is Macedo's fascination with the talking bird that all his efforts are concentrated on writing an essay about the bird's language, music, psychology, history and geography – in the same way as Canon Vargas with the spiders and, indeed, as any of a growing number of naturalists and anthropologists. His conversations with the canary fascinate Macedo so much that he does not sleep and spends all of his time working on his notes. His obsessive work ethic is similar to Simão Bacamarte's fixation on finding a cure for madness, once more connecting scientific methodology with insanity and mania.

Focused on working on his notes, Macedo forgets the bird's answer to his question about the meaning of the world. Upon asking him again, to his surprise, the bird's answer is different:

O mundo, respondeu ele, é um jardim assaz largo com repuxo no meio, flores e arbustos, alguma grama, ar claro e um pouco de azul por cima; o canário, dono do mundo, habita uma gaiola vasta, branca e circular, donde mira o resto. Tudo o mais é ilusão e mentira.³³²

Once more, the bird is precise about his world: the change of circumstances not only alters his perception but also modifies his reasoning. Tellingly, now he enjoys a more capacious cage, he becomes prouder: from 'senhor da gaiola', he turns into a 'dono do mundo'.³³³ The epistrophe at the end of the sentence reinforces the view that the canary 'coloca-se como o dono da verdade, de forma a considerar que alguém que disser algo diferente do que ele diz, estará, automaticamente, mentindo.'³³⁴ Macedo is not worried by the canary's presumption and blames himself for not being more specific in his notes. He is also anxious that the monograph he intends to send to the scientific institutions may not further his aspirations for fame:

Não podia ainda escrever a memória que havia de mandar ao Museu Nacional, ao Instituto Histórico e às universidades alemãs, não porque faltasse matéria, mas para acumular primeiro todas as observações e ratificá-las. Nos últimos dias, não saía de

³³² Assis, 'Ideias de Canário', p. 592.

³³³ Librenz & Guizzo, p. 44.

³³⁴ Librenz & Guizzo, p. 44.

casa, não respondia a cartas, não quis saber de amigos nem parentes. Todo eu era canário.³³⁵

Although brief, the excerpt delineates Macedo's social and intellectual profile. His aspiration to publish his monograph in the annals of the Museu Nacional, the Instituto Histórico – whose full name was the Instituto Histórico e Geográfico – and the 'universidades alemãs' suggests another type of scientific methodology, one related to anthropological research into the nation's unique past. Such a search formed an integral part of the aspirational intellectualism of most of the Brazilian upper and scientific classes, whose studies represented a 'locus of intellectual projection' and 'a place for personal self-promotion'.³³⁶ According to Schwarcz, the Instituto Histórico e Geográfico 'had the appearance of courtly societies',³³⁷ and its research reflected the interests of the government and politics. Moreover, the end of the excerpt – 'Todo eu era canário' – shows that Macedo has come to identify with the bird, as if he were parroting the canary's 'professorial' and authoritative form of talking. The sentence also points to something unreasonable, even monomaniacal, since Macedo's studies were accompanied by feverish sleepless nights. Thus, it is likely that the voice of the bird is a projection of Macedo's desire to be an established and prominent scientist.

The intense pattern of observation and recording takes its toll on Macedo and he falls ill. No longer under Macedo's care, the canary escapes from its cage and is nowhere to be found. After a few days, on his way through a neighbouring field, Macedo meets the bird by chance and asks him to return home so that he can finish his paper. The bird then shows how his scientific and empirical view has, along with his circumstances, changed again and replies: 'O mundo, concluiu solenemente, é um espaço infinito e azul, com o sol por cima'.³³⁸

Infuriated by the answer, Macedo replies that, if he were to trust the bird, the world could be anything or everything, including a second-hand shop. The bird's final reply shows once more his confidence, since he in turn questions Macedo: 'Mas há mesmo lojas de belchior?'

³³⁹ The humorous ending, circling back temporally to the repetition of 'lojas de belchior' and spatially to the shop where the two met, suggests the localised and located nature of even so-called universal knowledge: every time Macedo changes the bird's temporal and spatial circumstances, the bird's answers changed. However, Macedo does not realise the localised and contingent nature of the bird's knowledge, which leads to a pointless and obsessive

³³⁵ Assis, 'Ideias de Canário', p. 592.

³³⁶ Schwarcz, *The Spectacle of the Races*, p. 118.

³³⁷ Schwarcz, *The Spectacle of the Races*, p. 112.

³³⁸ Assis, 'Ideias de Canário', p. 592.

³³⁹ Assis, 'Ideias de Canário', p. 593.

search: his partial notes and conclusions regarding the canary result only in confusion, illness and disappointment.

As noted, the two types of ‘science’ invoked in the short story are classical Aristotelian deduction and modern Brazilian anthropology’s search for the nation’s unique and singular past. While the former is (mis)used by the bird, the latter is evoked by the continued metaphors of the bird and the second-hand shop and by the direct references to the Museu Nacional, the Instituto Histórico and the Universidades alemães, which effectively allegorise the Age of the Museums³⁴⁰ in loose historical order and the role that they played in the creation of a national and cultural identity.

According to the biologist Bruno Araujo Absalon,³⁴¹ Brazilian scholarship has its origins in the eighteenth-century colonial scientific missions that informed the Portuguese King and his court about the breadth of Brazil’s natural flora and fauna. With a view to sampling and systematising Brazilian wildlife, the Viceroy Luís de Vasconcelos e Sousa (1742–1809) created the Casa de História Natural (1784), popularly known as Casa dos Pássaros, in allusion to the birds which could be seen from the windows of the building. The director of the collection, Francisco Xavier Cardoso Caldeira (?–1810), nicknamed ‘Xavier dos Pássaros’, had the task of selecting the animals for the exhibits and of grouping them according to genus and species. The museum, a pioneer of its kind in South America,³⁴² was the precursor of the Museu Nacional (1818), one of the first institutions created by Dom João VI upon his arrival in Brazil. According to Schwarcz, Dom João aimed to ‘stimulate botanical and zoological studies in the area’.³⁴³ The archive consisted of ‘collections and curiosities, exhibited without any method of classification’.³⁴⁴ According to Myriam S. Santos, the small and ‘scattered’ collection grew with Egyptian and Roman pieces brought by Dom Pedro and the Empress Tereza Cristina.³⁴⁵ Such ‘expansion’ represented Brazil’s entry to a universalising European narrative: the establishment of ‘uma cronologia histórica e evolutiva’ which connected the mythical past of ancient civilisations to the nation’s

³⁴⁰ Schwarcz, p. 71.

³⁴¹ Bruno Araujo Absalon, Francisco José Figueiredo & Valéria Gallo, ‘O primeiro Gabinete de História Natural do Brasil (“Casa dos Pássaros”) e a contribuição de Francisco Xavier Cardoso Caldeira’, *Filosofia e História da Biologia*, 13.1 (2008), pp. 1–22 (p. 7).

³⁴² Nelson Papavero & Dante Martins Teixeira, ‘Remessa de Animais de Santa Catarina (1791) para a “Casa dos Pássaros” no Rio de Janeiro e para o Real Museu da Ajuda (Portugal)’, *Arquivos de Zoologia – Museu de Zoologia da Universidade de São Paulo*, 44.4 (2013), 185–209 (p. 199).

³⁴³ Schwarcz, *The Spectacle of the Races*, p. 75.

³⁴⁴ Schwarcz, *The Spectacle of the Races*, p. 75.

³⁴⁵ Myriam Santos, ‘Os Museus Brasileiros e a Construção do Imaginário Social’, *Soc. Estado*, Brasília, 15.2 (2000), 271–302 (p. 283).

nationalistic present.³⁴⁶ However, the reconciliation of European and Brazilian myths was problematic for the national narrative, since, as Santos highlights, international scientific missions did not cease to stress how Brazilian scholarly trends reproduced European ones superficially and awkwardly.³⁴⁷ Moreover, as Schwarcz argues, Brazil had ‘no colonies to conquer and pillage to establish collections’³⁴⁸ and few funding resources, although it did have vast uncharted territories inland.

Since ‘construir um Brasil que tivesse continuidade com a Europa e suas tradições, tarefa tão ridicularizada na Europa durante todo o período Imperial, tornara-se uma tarefa praticamente impossível’³⁴⁹ the directors of the Museu Nacional, highly influenced by the evolutionary ideas of the end of the century, turned to investigate what was unique to Brazil. Under the administration of botanist Ladislau Netto (1874–93) and physician João Batista de Lacerda (1846–1915) the museum inaugurated the journal *Archivos do Museu Nacional* (1876), which sought to communicate with European scientists through publications about natural sciences and anthropology. Although the majority of its publications showcased the natural sciences,³⁵⁰ the National Museum became the first institution in Brazil to offer courses on physical anthropology.³⁵¹ This new specialty was based on Lacerda’s research on the Botocudos, a Brazilian indigenous nation, and drew on Johann Friedrich Blumenbach’s method of craniometry and bone measurements; its aim was nothing less than to determine the ‘missing link’ of human evolution.³⁵² In order to prove his hypothesis, Ladislau’s administration launched the ‘Brazilian Anthropological Exhibition’ of 1882, which effectively abducted and displayed a family of seven Botocudos, along with their weapons, adornments and utensils. So great was the success of this ‘human zoo’³⁵³ that the Botocudo family was taken to London the following year as a travelling exhibition.

The case of the Botocudos exemplifies how contemporary ethnographic anthropology was not merely a branch of zoology or botany but also of evolutionary

³⁴⁶ ‘O Museu Nacional reproduzia o discurso dos grandes museus europeus, ainda que em menores proporções. A constituição dos imaginários nacionais sempre envolve narrativas sobre origens, e para os articuladores do Império Brasileiro uma de nossas origens era sem dúvida aquela mesma que fundamentava as grandes potências europeias’. Santos, p. 283.

³⁴⁷ Santos, p. 278.

³⁴⁸ Schwarcz, *The Spectacle of the Races*, p. 76.

³⁴⁹ Santos, p. 283.

³⁵⁰ ‘An analysis of the breakdown of the journal’s contents over the first twenty-four years (1876–1930) reveals the limited space devoted to anthropology, contrasted with the absolute dominance of articles about the so-called natural sciences (77 percent).’ Schwarcz, *The Spectacle of the Races*, p. 77.

³⁵¹ Schwarcz, *The Spectacle of the Races*, p. 77.

³⁵² Marina Cavalcante Vieira, ‘A Exposição Antropológica Brasileira de 1882 e a exibição de índios botocudos: performances de primeiro contato em um caso de zoológico humano brasileiro’, *Horizonte Antropológico*, 25 53, (Jan/Apr 2019), 317–357, (p. 324).

³⁵³ Vieira, p. 321.

anthropology,³⁵⁴ the eugenic instrumentalisation of which included the so-called whitening of the Brazilian 'race', which Lacerda and others considered to be an improvement on native populations who were at an 'inferior' stage of evolution. Later on, Lacerda delivered a paper at the 'First Universal Races Congress' (1911) in London in which he argued that Brazil was overcoming its 'mixed-race' and 'degenerate'³⁵⁵ past in which Indians, black and white people had intermarried. Machado's own mixed-race identity, and perhaps his experience as an object of social scrutiny and curiosity, may have contributed to his ironic portrayal of Macedo as a potential subject of study. Just as the bird lived in a cage, Macedo lived in a world that could be compared to a larger birdcage – or, indeed, to Bacamarte in his asylum, or to Vargas's disappearance after his experiments with the spiders.

Whatever the case, in 'Idéias do Canário', the fable of the talking bird and its audacious provocations serves as an allegory that indirectly traces the trajectory of the Museu Nacional. Although it started as the Casa dos Pássaros (a telling name, given that 'Idéias...' is about a bird), with 'scattered' objects brought from different parts of the world, the institute came to display humans as if they were exotic animals. The narrator complicates the figure of the scientist by implying that the world itself is a cage and that he too may become an object of study, just like the third-person narrator at the beginning of the story, who judges his tale by declaring that nobody believed in Macedo. The plot, then, obsessively circles back instead of following a linear progression.

Although Macedo tries to become an erudite professor who follows European-influenced methodologies, the bird – endowed with a philosophical and deductive form of reasoning – does not allow him to fulfil his objective. The canary utters the epistrophe, 'Tudo é ilusão e mentira', paraphrased from King Solomon (Ecclesiastes 1:2–18), to critique and ridicule the scientific biases of the period. The fabulous and irrational conceit of the bird becomes, ironically, the rational and realistic aspect of the story: it reminds the reader that both science and history are social constructs that change according to temporal and geographical locations – just as the bird's philosophy of life changes as its circumstances change. In this reading, it is Macedo's attempt to paralyse and control knowledge through obsessive observation that is found to be irrational and counter-productive. The reverberations, however faint, of racial theories – through the mere mention of the research

³⁵⁴ Schwarcz, *The Spectacle of the Races*, p. 89.

³⁵⁵ Skidmore, pp. 65, 66.

institutes – suggest that ‘idéias de homogenização racial em um país de mulatos’³⁵⁶ are highly problematic, even unscientific.

* * *

‘A Sereníssima República’ and ‘Idéias de Canário’ illustrate Machado de Assis’s critical and discerning approach to some of the more unsettling and disturbing aspects of nineteenth-century scientific enquiry in Brazil. Without overtly condemning their premises or recklessly endorsing their development, Machado seems, in these and other texts, to call attention to the localised and fluid nature of knowledge. While ‘A Sereníssima...’ alludes to the continuous weaving of a textual fabric, ‘Idéias...’ points to the located and particular nature of scientific truth – at least as science was practised at the time. Through a mixture of discursive forms – most notably, academic papers and ancient fables – the author offers a dissonant perspective, one that conveys that both science and the reality it purports to study and elucidate depend on historical contingencies and subjectively limited worldviews.

One of the principal characteristics of Brazil in the nineteenth century, as already noted, was the distressing combination of ancient social structures – slavery, patronage and mysticism – and the new ideological configurations of republicanism, democracy and science. While the country aspired to a new reality, grounded in modern forms of thinking, its ruling classes and elites wished to remain in control of political and social decisions. To maintain their power, they were not ready to forgo certain ‘archaic’ privileges, such as free or cheap labour and intellectual and landed property. Science, contradictorily, became a ‘master’ discourse that justified class, gender and racial hierarchies. These social contradictions are symbolically inscribed in both ‘A Sereníssima República’ and ‘Idéias de Canário’ in which colonial enterprises mingle with republican ideals, and independent forms of thinking with Greek myths and talking animals. This mismatch of themes reminds the reader that the true democratisation of knowledge necessary for the country to advance socially and historically had yet to be realised. The physical allegory of the spiders and the epistemological allegory of the bird are appropriate since they ‘talk’ about how political reform restricted popular political participation.

³⁵⁶ Maria Margaret Lopes, ‘A mesma fé e o mesmo empenho em suas missões científicas e civilizadoras: os museus brasileiros e argentinos do século XIX’, *Revista Brasileira de História*. 21. 41, (2001), 55-76 (p. 72).

This portrayal is part of the ‘perversion of Enlightenment’, to use again Candido’s term: at the very time that intellectuals sought to transform society, they were also part of an unequal historical, political and economic order that structurally prevented them from effecting radical change. The majority also belonged to elites and had no desire to sacrifice their comfortable social position. If on the one hand Vargas and Macedo appear to be guided by a selfless interest in science and truth, they are also driven by their personal desire for fame, influence and social power. However, their selfish projects are not singular pathologies but, rather, part of an unequal social milieu that enables domination, conquest and hierarchies.

Against these inequalities in Brazilian society, the author populates his stories with narrators and tragic-comic characters. The two ‘men of science’, although part of scientific communities, work completely alone. They also fail in their research: Vargas disappears from the story after the initial framing, and Macedo’s bird proves to be a source only of confusion and frustration. Ultimately, Vargas and Macedo are alienated from their reality and lost in their idealistic endeavours. They remind the readers of the fragility of intellectual thought in a post-colonial and unequal country. Perhaps the combined image of Hercules and Quasimodo – one classical, the other modern and Romantic – is once more appropriate since it points to the magnitude of the scientific enterprise and the fragility of social structures, or even a contradictory but complementary image, that of the fragility of scientific knowledge and the grandiosity of social hierarchy.

3. FAMILIAR THEORIES: EXOTIC LANDS

The colonial enterprises of the late fifteenth century inaugurated debates on the differences between European and indigenous peoples, a conversation often found in the travel narratives of the period.³⁵⁷ Such representations ‘blended reality with fantasy’, and ‘the “new people” were frequently described as having unusual natures and strange costumes’.³⁵⁸ Such characterisations also introduced the literary trope of the ‘exotic’, which reinforced the contradictory view of native populations as ‘savage’ and ‘barbarian’, but at the same time authentic and in harmony with the environment. According to the historian Luciana Murari, European observers portrayed the dwellers of the New World as natural beings who lived in communion with a paradisaical nature, quite different from the Europeans who were confined to their artificial habits and lives.³⁵⁹ Murari argues:

Esse elogio do selvagem, que caracterizou a presença da América no imaginário europeu principalmente até o século XVIII, abriu espaço para a valorização do Novo Mundo. Projetou-se sobre ele a crença no retorno da *idade de ouro*, operada por meio de associações entre os costumes do homem americano e os dos ancestrais do homem europeu. A partir dessa idealização do selvagem, chegar à América tornava-se uma forma de acesso às origens, o que levou a caracterizá-la como *primitiva*.³⁶⁰

The geopolitical encounter of cultures generated the double myth of the ‘good savage’, which both idealised an allegedly noble nature and perpetuated the idea that indigenous habitants belonged to a remote past, less ‘advanced’ than the European nations. While the Enlightenment thinkers of the eighteenth century questioned the origins of the ‘new peoples’,³⁶¹ based on the ‘razão transparente e universal e na história cumulativa e linear’,³⁶² they concluded that their ‘golden age’ was effectively marked by savage practices and habits and that it was necessary to ‘civilise’ them. The critic Kabengele Munanga argues that Enlightenment intellectuals analysed these peoples as scientific objects, and used the term ‘race’, borrowed from the natural sciences, to place them into an evolutionary taxonomy. The concept of ‘race’ also helped these thinkers to establish disciplines such as natural history, biology and physical anthropology. A classifying methodology, derived

³⁵⁷ Schwarcz, *The Spectacle*, p. 45.

³⁵⁸ Schwarcz, *The Spectacle*, p. 45.

³⁵⁹ Luciana Murari, ‘O Culto da diferença: Imagens do Brasil entre Exotismo e Nacionalismo’. *Revista De História*, 141 (Dec 1999), 45-58, (p. 48) <<https://doi.org/10.11606/issn.2316-9141.voi141p45-58>>

³⁶⁰ Murari, p. 48.

³⁶¹ Kabengele Munanga, ‘Uma abordagem conceitual das noções de raça, racismo, identidade e etnia’. <<https://www.ufmg.br/inclusaosocial/?p=59>> [Accessed 8 February 2022] (para 4 of 26).

³⁶² Munanga.

from biology in the late eighteenth and early nineteenth centuries, was used to measure and qualify the distinctions between races. However, as Munanga argues, these classifications became hierarchies which established:

uma escala de valores entre as chamadas raças. O fizeram erigindo uma relação intrínseca entre o biológico (cor da pele, traços morfológicos) e as qualidades psicológicas, morais, intelectuais e culturais. Assim, os indivíduos da raça “branca”, foram decretados coletivamente superiores aos da raça “negra” e “amarela”, em função de suas características físicas hereditárias... e conseqüentemente mais aptos para dirigir e dominar as outras raças, principalmente a negra mais escura de todas e conseqüentemente considerada como... a mais sujeita à escravidão e a todas as formas de dominação.³⁶³

This pejorative hierarchisation can be observed in the language of the naturalist Comte de Buffon (1707–88) and the jurist Cornelius De Pauw (1739–99), two of the earliest scholars to characterise the American continent as a ‘place of privation’,³⁶⁴ and the native peoples as ‘dégénéré ou monstreux’.³⁶⁵ For Schwarcz, these were the first manifestations of what would later be called ‘racial theories’ which, in Thomas Skidmore’s³⁶⁶ classification, included the Ethnological-biological school (Samuel Morton); the Historical school (Gobineau); and the school of ‘social Darwinism’ (Spencer). Another aspect of racial studies was found in investigations on climate and the environment, and how these influenced human biology and behavioural patterns.

While the Amerindian ‘exotic’ was initially considered idyllic, it quickly became seen as barbaric, and needing to be disciplined and/or subjugated. According to Murari, the putative duality of ‘exotic’ peoples and land can be broadly seen throughout the nineteenth century in Brazil, primarily in Romantic and naturalist literary and artistic productions.³⁶⁷ The Romantics exalted Brazilian singularity in a form of ‘auto-exotismo’, in which ‘o intelectual “periférico” percebe a realidade que o circunda como “exótica”’³⁶⁸ and therefore depicts it according to European models. The most illustrative examples are José de Alencar’s Indianist characters Peri (*O Guarani*, 1857) and Iracema (*Iracema*, 1865), who embody the first attempt by a Brazilian to create ‘mythical heroes’. Antonio Candido argues that they ‘traduzem a vontade profunda do brasileiro de perpetuar a convenção, que dá a um país de mestiços o álibi de uma raça heróica, e a uma nação de história curta a

³⁶³ Munanga, (para 9 of 26).

³⁶⁴ Schwarcz, *The Spectacle*, p. 48.

³⁶⁵ Henry Ward Church, ‘Corneille De Pauw, and the Controversy over His *Recherches Philosophiques Sur Les Américains*’, *PMLA* 51.1 (Mar. 1936), 178–206, (p. 185).

³⁶⁶ Skidmore, pp. 49–53.

³⁶⁷ Murari, p. 48

³⁶⁸ Ventura, p. 38.

profundidade do tempo lendário'.³⁶⁹ As such, Peri and Iracema are not simply symbols of a mixed Brazilian race but also sacrificial victims of a culture whose eradication enabled civilisation. The naturalists, on the other hand, as Lilia Schwarcz contends, adopted an 'imperialismo interno', and turned the 'exotic' country into a subject of analysis and explanations:

During this period emerged a new professional elite (employees of the new institutions) that incorporated liberal principles into its rhetoric and favoured the adoption of scientific evolutionist discourse as a model for social analysis ... Adopting a kind of 'internal imperialism,' the country passed from the object of discussion to the subject of discussion. At the same time, social differences began to be equated with racial variations. Known from that time on as 'dangerous classes,' Negroes, African workers, slaves and former slaves were, in the words of Sílvio Romero, becoming 'objects of science' (preface to Rodrigues, 1933/1988).³⁷⁰

Romero's condemnation of 'dangerous classes' and 'inferior races' is portrayed, for example, in *O Cortiço* (1890), a novel that shows the mechanics of social Darwinism in a gentrified and Europeanised Rio de Janeiro. Although the narrative dramatises the advent of an extreme version of competitive capitalism in Brazil, it still depicts indigenous and Afro-Brazilian descendants as disruptive and marginal. For instance, the washerwoman Paula, a 'cabocla' (descended from both white and indigenous peoples) is stereotypically nicknamed 'Bruxa' (sorceress); her indigenous ancestry is shown as causing her to go mad and set fire to the whole slum. Similarly, the African origins of the *mulatos* Rita Baiana and Firmo apparently turn them into sensual creatures, indisposed to work and prone to violence and sexual promiscuity.

In both Romantic and Naturalist cases, Brazil and its people were subjected to an exoticised gaze, one in which the exotic, whether attractive or damning, needed to be eliminated. It is no coincidence that Peri becomes a Christian in the mythical conclusion of *O Guarani*, Iracema passes away from a broken heart, Paula dies in flames along with the slum, Firmo is assassinated, and Rita Baiana marries a Portuguese man, since 'o sangue da mestiça reclamou os seus direitos de apuração, e Rita preferiu no europeu o macho de raça superior'.³⁷¹ The elimination of the exotic is predicated on the idea that this same exotic resists knowledge; as Todorov argues, knowledge is incompatible with exoticism.³⁷²

³⁶⁹ Antonio Candido, *Formação da Literatura Brasileira: Momentos Decisivos 1750-1880* (São Paulo: Ouro Sobre Azul, 2017), p 538.

³⁷⁰ Schwarcz, *The Spectacle of the Races*, pp. 26, 27.

³⁷¹ Aluísio de Azevedo, *O Cortiço* (Porto Alegre: L&PM, 1998), Chapter XV, paragraph 91. EPUB file.

³⁷² Tzvetan Todorov, *Nosotros y los Otros: Reflexión sobre la diversidad humana* (Coyoacan & Buenos Aires: Siglo XXI Editores, 1995), p. 306.

However, paradoxically, while becoming the object of study among Brazilian intellectuals, and therefore known, exoticism was not welcome because it supposedly prevented progress and modernity. Through what Candido calls a ‘persistente exotismo – que eivou a nossa visão de nós mesmos até hoje’,³⁷³ Brazilian intellectuals scrutinised the country’s land and peoples. That research led to the conclusion that, to proceed with their research, intellectuals needed to become more European and eliminate every trace of the primitive native, even as they contributed to the construction of a ‘tropical product’ that would be economically and culturally commercialised.³⁷⁴

In all cases, the exotic was marked as an undesirable other, a subject of domination and disdain. Machado de Assis ‘que se embebeu meticulosamente da obra dos predecessores’³⁷⁵ tried to find his version of exotic elsewhere. This chapter will look at two of Machado’s short stories – ‘O Segredo do Bonzo’ (1881) and ‘Conto Alexandrino’ (1884), which retrace the trajectory of the European encounter with the ‘new peoples’ from amazement to derision, and then to subjugation and control. The narratives, disguised as tales from ‘exotic’ lands (Japan and Ancient Egypt), challenge disciplinary power structures through strange and fantastic situations: nose removal surgeries, vivisection and talking animals. Machado’s literary combination of the exotic with other temporal and spatial structures catalyses a critical reflection on the racial hierarchies dominant in Brazil in the nineteenth century. The subtle and ironic allusions to racial theories are encrypted in Machado’s texts in linguistic aphorisms³⁷⁶ and qualifications, and in discussions on the nature of truth and how it is constructed and disseminated in different places.

The following section will examine how the narrators of the stories convert unknown, alien and strange lands, rife with ‘exotic’ situations, into familiar mirror-like mythical images that reflect the incongruencies and contradictions of Brazilian scientific thought at the end of the nineteenth century, thus generating an allegory of Brazil.

‘O SEGREDO DO BONZO’: THE RHETORICAL SCIENCE

‘O Segredo do Bonzo’ was published in *Papéis Avulsos* (1882) along with ‘O Alienista’ and ‘A Sereníssima República’. Narrated by Fernão Mendes Pinto, a real historical figure

³⁷³ Candido, *Formação da Literatura*, p 639.

³⁷⁴ Candido, *Formação da Literatura*, p 639.

³⁷⁵ Candido, *Formação da Literatura*, p 436.

³⁷⁶ Machado uses aphorisms in their more abstruse, scientific sense, as an expression of a principle, in the style of Hippocrates.

and author of the Renaissance travel log, *Peregrinação* (1614), the story recounts Mendes Pinto's encounters with a 'wise' sect of monks, the 'pomadistas', in Japan. Pinto, along with two friends – the sandal maker Tatiné and the doctor Diogo Meireles – becomes the monks' disciple, and the three are led to a series of adventures, including fantastic nose removal surgeries performed by Meireles at the end of the story. Inspired by Mende's *Peregrinação*, Machado interpolates a fictional narrative, representative of the medical debates in Brazilian society, as he adds in the endnotes of the volume:

Como se terá visto, não há aqui um simples pastiche, nem esta imitação foi feita com o fim de provar forças, trabalho que, se fosse só isso, teria bem pouco valor. Era-me preciso, para dar a possível realidade à invenção, colocá-la a distância grande, no espaço e no tempo; e para tornar a narração sincera, nada me pareceu melhor do que atribuí-la ao viajante escritor que tantas maravilhas disse.... O Bonzo do meu escrito chama-se Pomada, e pomadistas os seus sectários. Pomada e pomadistas são locuções familiares da nossa terra: é o nome local do charlatão e charlatanismo.³⁷⁷

For Machado, the additional episode is not a naïve pastiche or imitation but, rather, a critical reflection on the original text, based on a contemporary Brazilian vernacular: 'pomada', meaning 'charlatanismo', charlatanism or quackery. According to the historian Gabriela dos Reis Sampaio, doctors and intellectuals in the nineteenth century labelled as 'charlatanismo' any kind of medicine that was different from their own, including 'curandeiros, espíritas e boticários até homeopatas e médicos estrangeiros cujos diplomas não tinham sido convalidados pelas faculdades de medicina do país'.³⁷⁸ For Sampaio, the European scientific discourse recently arrived in Brazil was in constant dispute with forms of popular medicine. Their battlefield was the newspapers and periodicals which would sometimes condemn anything considered quackery and, at other times, severely criticise physicians, 'denunciando suas imperícias, criticando absurdos por eles cometidos, e ironizando duramente a classe médica'.³⁷⁹ Given the constant power struggles involving social practices and the publications, the historian Vanessa de Jesus Queiroz associates the word 'charlatanism' with questions of state, government and power. Following Pierre Bourdieu, Queiroz argues that the state has a distinctive authority known as meta-power – power above all powers – whose existence is justified by other fields. When applied to Brazil, the meta-power of the imperial government needed the authority of medicine to solidify its

³⁷⁷ Assis, 'Notes...', p. 359.

³⁷⁸ Gabriela dos Reis Sampaio, *Nas tricheiras da cura: as diferentes medicinas no Rio de Janeiro Imperial* (unpublished master's thesis, Universidade Estadual de Campinas (UNICAMP), 1995) p. 8.

³⁷⁹ Sampaio, p. 12.

legitimacy, since epidemics and diseases were not compatible with the idea of civilisation.³⁸⁰ The alliance between science and state, however, problematised ‘charlatanismo’. The charlatan was a doctor whose education differed from that of mainstream physicians; he or she was a marginalised outsider, even an ‘exotic’ person, whose curative powers were on the brink of extinction. Considering the multifaced social nature of the word ‘charlatanism’, Machado de Assis’s endnote is as puzzling and plural as the term itself.

Taking into account the complex disputes between charlatans and doctors, it is possible to read Machado de Assis’s re-writing of *Peregrinação* as an exploration of the exotic – not the Romantic exotic, which projected an idealised view of indigenous and marginalised communities, nor the naturalist one, whose biologically informed perspective projected its extinction, but a trickster exotic, which absorbs different discourses in order to gain fame and authority. Informed by the ‘false candour’³⁸¹ of a restricted first-person narrator, Machado’s Mendes Pinto disguises himself as a Renaissance traveller to re-enact – rather than simply endorse – different power debates of the period. As such, charlatans, doctors and government agents dispute hegemony and stability in their public rhetoric. The manipulation of facts by a charlatan ‘pomadista’ (also ‘bonzo’ – the Buddhist monks and main characters of the story) alludes to the fabrication of pseudo-scientific discourses in contemporary Brazilian society as well as errors and failures in an emerging area of knowledge. There is no redemption for either the charlatans or the ‘real’ doctors; instead, they are both conditioned by historical contingencies and broader social structures.

While ‘charlatanismo’ brings the reader to contemporary Brazil, Machado – by situating the stories elsewhere in the past – distances them from the realist account of modern debates. This spatial-temporal displacement distances readers from contemporary situations and invites them to reflect upon the nature of the ‘segredo do bonzo’: what kind of secret are the monks (‘bonzos’) harbouring? What is the nature of their secret? Does it belong to the monks themselves, or is it part of a more general ‘healing’ ethos, whether official or not? In implicitly playing with historical temporalities and raising these questions, the narrator equates readers to the general population, confused between emergent medical discourses which were vying for domination, and residual forms of traditional and

³⁸⁰ Vanessa de Jesus Queiroz, ‘Uma luta contra o ‘indiferentismo’: Imprensa Médica e Charlatanismo no Brasil em meados de 1860’, *Revista de História da UEG*, 7.2 (2018), 105-130 (pp. 107, 108) <<https://www.revista.ueg.br/index.php/revistahistoria/article/view/8437>> [accessed 15 February 2022].

³⁸¹ Antonio Candido defines the ‘pícaro’ as a narrator who ‘narra as suas aventuras, o que fecha a visão de sua realidade em torno do seu ângulo restrito; e esta voz na primeira pessoa é um dos encantos para o leitor, transmitindo uma falsa candura que o autor cria habilmente e já é recurso psicológico de caracterização’ Antonio Candido, ‘Dialética da Malandragem’, *Revista do Instituto de Estudos Brasileiros*, 8 (1870), 67-89 (p. 68) <10.11606/issn.2316-901X.voi8p67-89> [accessed 13 March 2022]

marginalised medicine which still had hegemonic credibility among a significant proportion of the population. To make the secret still more cryptic, the narrator introduces, as previously mentioned, ‘real’ nose removal surgery, which addresses and problematises the (mis)appropriation of scientific theories for partisan group interests.

The historian Sidney Chalhoub was the first critic to suggest an interpretation of the nose in Machado de Assis’s *oeuvre*. Chalhoub sees it as a metonymic trope for the ‘racial science’ of the nineteenth century – an idea to which this analysis will return in due course.³⁸² The historian argues that the nose alludes to the ‘mixed racial’ status in the Brazilian identity, due to its physicality and the early phrenological debates that quantified intelligence based on cranial measures. He concludes that Machado takes an ironic stance on the idea of Brazil as a degenerate and primitive country.³⁸³ If, on the one hand, Chalhoub convincingly addresses the metonymical value of the nose, on the other he dismisses the power struggles between physicians and charlatans and, more importantly, the multiple meanings of the nose. The story’s intertextual ties to *Peregrinação* and its references to empire and political disputes allow us to further interpret the ‘nose’ as a continuous metaphor or an allegory for power, economic enterprise, castration, identity politics and, in the context of science – as Chalhoub puts it – the racial theories of the period. This plurality can also be observed in how Machado interweaves the theme of the nose in his own fictional and journalistic works, and in his textual nods to Laurence Sterne’s *Tristram Shandy* (1759), in which Tristram’s nose is deformed at birth. These literary aspects, which this analysis will further develop, are essential to an understanding of racial and medical identity politics. Complementing Chalhoub’s examination, and drawing on articles that critique religious fundamentalism³⁸⁴ and medical discourses such as phrenology and eugenics, this analysis argues that Machado contests the epistemology of scientific discourses, seeing them not as singular and unified, but as multiple and appropriated by different social classes according to their personal interests. Moreover, the author’s intertextualities (with his own work and that of others) help him to critique Brazilian society and its power disputes.

In order to understand Machado’s reworking of *Peregrinação* (1614), it is important to recapture the historical and political context of the travel narrative. Fernão Mendes Pinto was a Portuguese explorer and writer, descended from the powerful new Christian Mendes

³⁸² Sidney Chalhoub, *Machado de Assis, historiador* (São Paulo: Companhia das Letras, 2003), p. 215.

³⁸³ Chalhoub, p. 127.

³⁸⁴ Dilip Loundo Silva & Teresinha Vânia Zimbrão, ‘A Espiritualidade Cética ou o Budismo Acidental de “O segredo do Bonzo” de Machado de Assis’, *Horizonte*, 12.35 (July/Sept. 2014), 833-850 and Eduardo Guerreiro Brito Losso, ‘Nariz metafísico em “O segredo do Bonzo”’. <http://www.filologia.org.br/machado_de_assis/Nariz%20metaf%C3%ADsico%20em%20%27O%20segredo%20do%20Bonzo%27.pdf> [accessed 20 October 2020].

family of Lisbon and Antwerp which monopolised the trade in black pepper in Portugal in the early 1530s.³⁸⁵ At an early age, Pinto became a member of the Order of Jorge de Lancastre, joining the Portuguese India Armadas at the age of twenty-eight. From 1539 to 1558, he visited many places in the East, including India, China and Japan. Over twenty-seven years, Pinto recorded his adventures in a travel journal, published posthumously under the title *Peregrinação* (1614). These extraordinary tales of voyages are littered with exaggerations, which earned Mendes Pinto the nickname ‘Minto’ (‘liar’), a Portuguese pun on his name suggesting that his ostensibly true tales were more than a little embellished. For Rebecca Catz, who translated and edited *Peregrinação*, however, the narrator ought not be confused with the historical figure of Fernão Mendes Pinto, since Pinto’s narrator assumes several literary disguises (picaresque, foolish, utopian, confused, etc.) to express his scepticism of the Portuguese mission overseas.³⁸⁶ As Catz remarks, Pinto believed that ‘the mission to conquer was inspired by greed, and masked by hypocrisy, whereas the mission to convert was condemned to failure’.³⁸⁷ Thus, to express his views while avoiding the Inquisition, Pinto resorted to satire.

The same satirical tones and cryptographed messages inspired Machado to criticise economic and religious missions disguised as (pseudo)science. The Brazilian author indicates precisely that ‘O Segredo do Bonzo’ should be placed between chapters 213 and 214³⁸⁸ of Mendes Pinto’s *Peregrinação* as they relate to the kingdom of Bungo in Japan. In Chapter 213, Pinto revisits the religious debates between the Jesuit Priest Francisco Xavier – also referred to as ‘Father’ – and the ‘bonzos’ (monks). However, rather than focusing on Xavier’s teachings on the Catholic faith, Pinto Mendes turns instead to the challenging questions asked by the monks about poverty, paradise, reincarnation, and Adam and Eve. Although the narrator claims that the priest gives satisfactory answers, the reader is not privy to these. The only moment in the chapter where the priest is given a voice is towards the end of the debates when he stresses that the oriental faith (Buddhism) ‘does not proceed from them [the Buddhists], but from the devil himself who teaches them’.³⁸⁹ From this observation, the critic Luís André Nepomuceno observes:

³⁸⁵ Rebecca Catz, ‘Introduction’ in Fernão Mendes Pinto, *The Travels of Fernão Mendes Pinto* (Chicago and London: Chicago University Press, 1989), paragraph 5. EPUB file.

³⁸⁶ Catz, ‘Introduction’, p. 105.

³⁸⁷ Rebecca Catz, ‘Fernão Mendes Pinto and His *Peregrinação*’, *Hispania*, 74.43, (September 1991), 501 – 508 (p. 501).

³⁸⁸ Assis, ‘Notes’, p. 359.

³⁸⁹ Fernão Mendes Pinto, *The Travels of Mendes Pinto*, Chapter 213 – Provisions against Famine. EPUB file.

Mendes Pinto coloca em cena uma espécie de teatro das presunções, em que as verdades teológicas se pulverizam e se relativizam, e em que cada um atribui a si a boa-fé e o pertencimento à verdade revelada, e ao outro, a ignorância, a barbárie e o desconhecimento de sua verdade, que é e sempre foi a promessa de seu Deus.³⁹⁰

The ‘theatre of presumptions’ that Nepomuceno signals is an exercise of power through which religious authorities – both Christian and Buddhist – conduct Imperial and political disputes. Their religious arguments are, therefore, empty, and their truths pulverised by power struggles. Nepomuceno implies that, for Mendes Pinto, there is little difference between the Japanese and the Christian religious authorities, since both are engaged in a power struggle whose aim is to invalidate their adversaries’ beliefs. Nepomuceno’s reading is reinforced by Catz, who argues that the Japanese are ‘analogous to the Portuguese in their love of fine raiment, in their love of honour, and in their disdain for the merchant and their respect for the warrior and priestly castes’.³⁹¹

It is into this ‘theatre of presumptions’, that Machado de Assis inserts his explicitly fictional story, which involves a theory originating from the bonzos and spread by the Portuguese visitors, that became ‘digna de ser divulgada a todas as repúblicas da cristandade’.³⁹² While strolling with his friends, the physician and ex-merchant Diogo Meireles, Mendes Pinto hears the ‘bonzo’ Patimau proclaim to a fascinated crowd that he – a mathematician, physicist and philosopher – has discovered the origin of crickets: they are spontaneously generated at the new moon by coconut leaves and the air. Soon afterwards, they catch a glimpse of another monk, Languru, who captivates those gathered around him by professing that life originates from cows’ blood. Patimau and Languru each offer a hypothesis about the origins of life, a theme common to both religious and scientific scholars. However, their speeches seem to derive from ancient and medieval theories of spontaneous generation, according to which living organisms develop from non-living matter.³⁹³ Both Pinto and Meireles find this coincidence odd and learn from an acquaintance of the latter, Tatiné – a sandal maker, that Patimau and Languru are both followers of a more experienced ‘bonzo’ who lives in the Coral mountains: Pomada, a 108 year-old man ‘muito lido e sabido nas letras divinas e humanas, e grandemente aceito a toda aquela gentildade, e por isso mesmo malvisto de outros bonzos, que se finavam de puro ciúme’.³⁹⁴ Pinto,

³⁹⁰ Luís André Nepomuceno, ‘Religião e identidade cultural na Peregrinação de Fernão Mendes Pinto’, *Revista do SELL*, V. 5.4 (2016), 1-15 (p. 6).

³⁹¹ Catz, ‘Introduction’, p.117.

³⁹² Assis, ‘O Segredo’, p. 320.

³⁹³ ‘Spontaneous Generation’, in in Encyclopedia Britannica [online], <<https://www.britannica.com/science/spontaneous-generation>> [Accessed 4 August 2020].

³⁹⁴ Assis, ‘O Segredo’, p. 322.

Meireles and Tatiné visit Pomada and learn from him that both Patimau and Languru follow his theory that:

se uma coisa pode existir na opinião, sem existir na realidade, e existir na realidade, sem existir na opinião, a conclusão é que das duas existências paralelas a única necessária é a da opinião, não a da realidade, que é apenas conveniente.³⁹⁵

The quotation not only reveals that Patimau and Languru are not ‘men of science’, since they value rhetoric and appearance over reality, but also suggests that ‘opinion’ is more important than reality. However, the theory also raises questions: whose opinion and what opinion? And how ‘convenient’ can reality be? The name of the monks’ sect, the ‘pomadistas’, suggests an ointment, a substance applied to the skin for medicinal or cosmetic purposes, in other words, something ‘superficial’. It is also a synonym for ‘fraude’, ‘presunção’ and ‘vaidade’, ³⁹⁶ suggesting that reality needs to be superficially and ‘conveniently’ shaped by a convincing performance. Interested in verifying the validity of the theory, the three men, each symbolising a different social group – tradesmen (Tatiné), artists (Pinto) doctors (Meireles) – become ‘pomadistas’, putting the monks’ beliefs into practice. In order to sell his sandals, Tatiné publishes a story in the local newspaper in which he claims that his products are popular in fashionable cities around the world. Immediately, his sales improve. Pinto delights a street audience by playing the ‘charamela’ (a typical Portuguese-Chinese medieval instrument, precursor of the oboe and clarinet³⁹⁷). Although relatively unskilled, Pinto gives an exaggerated performance using dramatic gestures and an extravagant presentation that earns him acclaim as an extraordinary musician. The ‘mais engenhosa de todas as nossas experiências’ ³⁹⁸ is reserved for Meireles. The citizens of Bungo suffered from a mysterious facial disease that caused their noses to swell. As the narrator states:

Lavrava então na cidade uma singular doença, que consistia em fazer inchar os narizes, tanto e tanto, que tomavam metade e mais da cara ao paciente, e não só a punham horrenda, senão que era molesto carregar tamanho peso. Conquanto os físicos da terra propusessem extrair os narizes inchados, para alívio e melhoria dos enfermos, nenhum destes consentia em prestar-se ao curativo, preferindo o excesso à lacuna, e tendo por mais aborrecível que nenhuma outra coisa a ausência daquele órgão.³⁹⁹

³⁹⁵ Assis, ‘O Segredo’, p. 322.

³⁹⁶ ‘Pomada’, in *Dicionário Português Michaelis* [online], <<https://michaelis.uol.com.br/moderno-portugues/busca/portugues-brasileiro>> [Accessed 12 January 2019].

³⁹⁷ ‘Charamela’, in *WordSense Online Dictionary* [online] <<https://www.wordsense.eu/charamela/>> [Accessed 26 September 2022].

³⁹⁸ Assis, ‘O Segredo’, p. 325.

³⁹⁹ Assis, ‘O Segredo’, p. 325.

The passage describes an enlargement of the nose, which burdens the sufferer with its ugliness and weight. However, as a doctor ‘educated’ in the convenient, convincing ‘opinions’ of the pomadistas, Meireles persuades his patients to have their noses removed, even when they initially resist his diagnosis and prefer to keep their excessively ugly heavy noses. Meireles claims that he has a ‘secret’: after extracting the diseased nose, he will replace it with a ‘metaphysical nose’. On hearing the plan, the philosophers are the first to approve to the surgeon’s plan and calmly submit to the procedure. More people follow their example until, finally, all the patients agree to have their noses removed.

The story ends with the narrator stating that the tale should be told ‘para glória do bonzo e benefício do mundo’,⁴⁰⁰ a phrase that parodies the aphorism ‘para a glória de Deus e benefício dos homens’, used by the Portuguese to justify both their colonial enterprises and their scientific discoveries. According to the critic Sebastião Formosinho, the Portuguese often invoked divine justification to support astronomical and medical discoveries with epistemological and practical applications, such as an understanding of nature or improvement in quality of life.⁴⁰¹ In the short story, however, the narrator replaces ‘Deus’ with ‘bonzo’ and ‘homens’ with ‘mundo’; neither the Christian God nor human beings, in a universal sense, are important anymore. Instead, what holds sway is an individual’s opinion disguised as scientific reality, which maintains the hierarchical world order organised by the ‘pomadistas’ (bonzos). The configuration of a society in which the ‘pomadistas’ convince others of their opinion and authority – as the critic Eduardo Losso highlights – creates an ‘inversão alegórica’,⁴⁰² or a reversal of identities, in which the monks impersonate ‘men of science’ to secure influence and maintain social, hierarchical power.

The allegorical inversion in which the ‘bonzos’ assume the role of ‘men of science’ also alludes to Machado de Assis’s endnote about ‘charlatanism’. The conclusion of the story suggests that the monks are deceivers who use their charisma to ‘sell’ their opinions and reality as truth and to persuade people to do what they want them to: buy their products, and praise them, even as they undergo mutilating surgery. Their seduction is the result of speech, rhetoric and performance, strategies the monks use to gain attention and credibility. According to Vanessa de Queiroz, the medical classes systematically denounced non-official

⁴⁰⁰ Assis, ‘O Segredo’, p. 325.

⁴⁰¹ Sebastião Formosinho, *Nos Bastidores da Ciência: 20 anos depois* (Coimbra: Imprensa da Universidade de Coimbra, 2007), p. 208.

⁴⁰² E. G. B. Losso, ‘Nariz metafísico em “O segredo do Bonzo”’, <http://www.filologia.org.br/machado_de_assis/Nariz%20metaf%C3%ADsico%20em%20O%20segredo%20do%20Bonzo%27.pdf> [Accessed 20 October 2020].

medical practices. In her analysis of the 1860s medical journals *Annaes Brasilienses de Medicina* (Rio de Janeiro) and *Gazeta Médica da Bahia* (Bahia), Queiroz tracks physicians' criticism of both popular medicine and homoeopathy through research that:

ultrapassavam o campo científico e nosológico, e alcançavam demandas políticas sobre os temas mais diversos, a exemplo de críticas aos regulamentos das faculdades e da legislação fiscal vigente, das constantes recomendações de políticas de saúde pública que preconizassem a boa higiene e a prevenção, sobre a Guerra do Paraguai e outros assuntos relativos à estabilidade e ao futuro da nação – inclusive da importância de um Brasil reconhecido perante as nações cultas –, dentre outras pautas que mostravam o médico como sujeito histórico que além de profissional era, também, homem da sociedade política de seu tempo.⁴⁰³

Queiroz notes that members of the medical classes sought to legitimise their expertise by reaching out to other social fields, such as law, politics and warfare, via the printing press, which was a means of communication only for a minority since more than 70% of the Brazilian population could neither read nor write. Hence, science addressed a 'select' and 'enlightened people' who were more or less familiar with medical language and well-versed in the latest theories.⁴⁰⁴ Conversely, according to Gabriela Sampaio, the 'charlatans' – the class that included 'curandeiros' or popular healers – were extremely sought after⁴⁰⁵ since they used oral communication and, to a certain extent, performance and popular advertisements, which appealed to the majority of the population. Sampaio quotes the example of the celebrity healer Eduardo Mauritius, who was persecuted by the medical classes due to his popularity with the sick.⁴⁰⁶ From historians' studies and through the lens of Machado's story, it is possible to understand the 'healing' and 'medical' fields of the period as a complex network of disputes, continuities and ruptures, with little distinction between healers and medics, not unlike the lack of distinction between the Buddhists and Christians in the original *Peregrinação* by Fernão Mendes Pinto.

'O Segredo do Bonzo' contains a fantastic element: the illness is mysterious, the cure even stranger, in direct contradiction to the fact that Meireles appears to be a medical doctor. It is likely that Machado complicates the figure of the 'specialist', transforming Meireles into a contradictory character who can be seen as a doctor – since he seems to be interested in finding a cure for a strange illness – and a popular healer who uses tricks and rhetoric to persuade the population. At the same time, Meireles seems to be a physician; he is influenced by the methodology of the 'bonzos', suggesting that his 'segredo' is more than a

⁴⁰³ Queiroz, p. 123.

⁴⁰⁴ Queiroz, p. 123.

⁴⁰⁵ Sampaio, p. 163.

⁴⁰⁶ Sampaio, p. 163.

metaphysical philosophy or a miracle cure but that he is perhaps a charlatan himself. A multi-faceted character, Meireles is an exotic trickster who assumes different guises and uses them aleatorily to achieve his goals. Moreover, he embodies the historical complexity of the medical field of the late nineteenth century. According to historian Nikelen A. Wilker, ‘não existiam fronteiras rígidas’ entre o conhecimento erudito, que se aproximava da magia, da alquimia e das crenças religiosas, e aqueles saberes tradicionais cultivados pelo povo’.⁴⁰⁷ Wilker goes on to note that ‘curandeiros’ and doctors shared the same curative techniques:

Purgas e sangrias não eram privativas dos médicos, que as aplicavam havia pelo menos três séculos. Assim como diversos sîmplices e triagas de origem popular e passaram a figurar dentre os remédios da medicina oficial, igualmente o curandeirismo assimilou e adaptou os elementos do conhecimento erudito que lhe chegavam.⁴⁰⁸

Wilker’s observations remind the modern reader that ‘official’ and ‘popular’ medicine were relatively interchangeable and that both presented an element of the ‘fantastic’ and ‘magic’ to the general population.

As official medicine gained support from the authorities, the power disputes between doctors and healers became fiercer and more prominent, a fact that Machado de Assis himself commented on in a humorous chronicle dated 29 August 1889. Published in the newspaper *Gazeta de Notícias* under the pseudonym ‘Boas Noites’, Machado de Assis addresses the disputes between popular and traditional medicine and makes an amusing connection between ‘curandeiros’ (popular healers), official medicine and spiritualist rituals. In the chronicle, the narrator comments on the detention of the healer Tobias, whose arrest – along with his medicines and curative objects – was widely reported in the newspapers. Even though Machado believes the ‘curandeiros’ should be punished, he also argues that they are the forefathers of medicine:

Punamos o curandeiro, mas não esqueçamos que a curandeira foi a célula da medicina. Os primeiros doentes que houve no mundo, ou morreram ou ficaram bons. Interveio depois o curandeiro, com algumas observações rudimentárias, aplicou ervas, que é o que havia à mão, e ajudou a sarar ou a morrer o doente. Daí vieram andando, até que apareceu o médico. Darwin explica por modo análogo a presença do homem na terra.⁴⁰⁹

⁴⁰⁷ Nikelen A. Wilker, ‘Curandeirismo: Um outro olhar sobre as Práticas de Cura no Brasil do Século XIX’, *Vidya Revista*, 19.34 (2000), 83-197 (p.189) <<https://periodicos.ufrn.edu.br/index.php/VIDYA/article/view/523>> [Accessed 1st March 2022].

⁴⁰⁸ Wilker, p. 189.

⁴⁰⁹ Assis, *Crônicas Completas*, p. 681

Thus, while Machado condemns popular healers, he also gives them credit by referencing Darwin's theory of evolution and arguing that their methods inspired generations to pursue medical knowledge. He ends the chronicle by stating that, although spiritualistic rituals are akin to the acts performed by the 'curandeiros', he believes spiritualism should be abolished. More pertinently, Machado stresses that a disproportionate number of healers were arrested – 'nunca vi tanto curandeiro apanhado, – o que prova que a indústria é lucrativa',⁴¹⁰ demonstrating his awareness of the disputes between medical doctors and popular healers, and criticising how the dispute is financially beneficial to the upper classes.

The historical disputes between healers – or charlatans – and doctors indicate that while the former may seem more attractive and popular, the latter can appear arrogant and elitist. However, both had aspirations of hegemonic power. While 'O Segredo do Bonzo' seems to portray the impostors whom the medical doctors opposed, it also demonstrates how the charlatans resorted to powerful instruments to convince the population of their abilities. As previously mentioned, they drew on cures derived from traditional popular medicine, speech and performance, beyond the written word, using the most convincing and wide-reaching communication modes of the time. The story does not redeem the impostors but, rather, shows how they also endorse and maintain social hierarchies, including those of class and racial prejudice, which have roots in the classical colonial class struggles of Brazilian history.

As the historian Thomas Skidmore has argued, Brazilian history is rife with inequality: 'as independence came to Brazil, it lacked even the beginnings of a bourgeoisie'.⁴¹¹ The country's economic base was agricultural, with enslaved people providing cheap labour. For their part, Brazilian farm owners, while reliant on foreign markets, played virtually no role in the marketing of Brazilian exports.⁴¹² In addition to economic dependency, Brazil politically emulated an English-style monarchic parliamentarianism, in which the emperor served as a 'moderating power',⁴¹³ maintaining an apparent political balance. This colonial configuration, allied with a culture of domination and physical punishment, helped to sustain a master-and-slave social structure in which 'monarchy combined with slavery created an atmosphere of deference that was powerfully transmitted to the non-elites'.⁴¹⁴ This deference was reinforced by religious, cultural and racial stratification that allowed the elites to 'convince' others that 'there was

⁴¹⁰ Assis, *Crônicas Completas*, p. 680.

⁴¹¹ Thomas Skidmore, *Brazil: Five Centuries of Change* (New York & Oxford: Oxford University Press, 1999), p. 38.

⁴¹² Skidmore, *Brazil*, p. 38.

⁴¹³ Skidmore, *Brazil*, p. 49.

⁴¹⁴ Skidmore, *Brazil*, p. 39.

no way to change their world'.⁴¹⁵ This stratification is embedded in the allegory of the 'bonzos' who persuade people to do exactly what the monks want. In other words, the 'pomadistas' are themselves empowered by a social structure that enables hierarchies. The attractive spectacle provided by the monks serves to reinforce their image as members of a supposedly enlightened class.

With the consolidation of scientific discourse at the end of the nineteenth century, the elites appropriated social Darwinism and racial theories to remain in power.⁴¹⁶ As Roberto Schwarz stresses, 'a ciência fundaria um tipo de autoridade mais racional e civilizada que a patronagem'⁴¹⁷ without, however, being less exclusionary or perverse. For Schwarz, such exclusionary scientific power is exemplified in *Memórias Póstumas de Brás Cubas* (1881), especially in the chapter 'A Ponta do Nariz', in which the 'mais variadas formas do pensamento moderno'⁴¹⁸ are manipulated by the narrator, who cajoles the reader into sympathising with him, using language borrowed from various scientific and philosophical trends. The same can be said of 'O Segredo do Bonzo', in which the monks simplistically and deceptively appropriate science for their personal benefit.

As previously mentioned, Chalhoub argues that 'O Segredo do Bonzo' draws on the 'racial sciences' of the nineteenth century, stressing that the mathematician Petrus Camper is particularly relevant since he devised the 'facial angle' and 'nasal index' to distinguish humans from primates.⁴¹⁹ Camper, with the help of mathematical equations, established what he considered to be the perfect proportions for the human face by measuring the distance between the forehead and the nose. This was a procedure by which he deemed African and Asian noses to be disproportionately ugly, and which praised European noses for their symmetrical beauty.⁴²⁰ Following a similar trend in eighteenth-century Anglophone literature, the critic Noelle Gallagher contends that 'the nose played a central role in new and developing attempts to distinguish between different races'.⁴²¹ Amongst

⁴¹⁵ Skidmore, *Brazil*, p. 39.

⁴¹⁶ In Brazil, Darwinism was coopted by Catholicism and the upper classes to justify their supremacy in power. H.M.B Domingues, M.R. Sá & T.A. Glick, *A recepção do Darwinismo no Brasil* (Rio de Janeiro: Editora FIOCRUZ, 2003), p. 24.

⁴¹⁷ Schwarz, *Um Mestre*, p. 169

⁴¹⁸ Schwarz, *Um Mestre*, p. 159.

⁴¹⁹ Sidney, *Machado*, p. 215.

⁴²⁰ According to Judith Ruderman, Camper precisely defined the aesthetically beautiful face as that in which an angle of one hundred degrees to the horizontal is created by the facial line. Judith Ruderman, *Passing Fancies in Jewish American Literature and Culture*. <<https://books.google.co.uk/books?id=c7SBDwAAQBAJ&pg=PT35&lpg=PT35&dq=petrus+camper+nasal+index&source=bl&ots=cNLRn5mYmZ&sig=zEQgwhJwnqsqTLiJcgo3idENDUw&hl=pt-PT&sa=X&ved=2ahUKEwi8rdKenubfAhWFSxUIHVVaDPoQ6AEwB3oECACQAQ#v=onepage&q=petrus%20camper%20nasal%20index&f=false>> [Accessed 11 January 2019].

⁴²¹ Noelle Gallagher, *Itch, Clap, Pox: Venereal Disease in the Eighteenth-Century imagination* (New Haven & London: Yale University Press, 2018), p. 162.

influential scholars, she mentions the ‘natural historian Oliver Goldsmith, the French naturalist Georges-Louis Leclerc, le Comte de Buffon, and the Swiss moderniser of physiognomy Johann Lavater’.⁴²² Gallagher emphasises that Lavater’s study categorised men from different backgrounds according to the shape of their noses. While ‘hooked noses’ were deemed to be typical of Jewish racial heritage,

Asians and Africans were identifiable not only by their darker colouring, but also by their “deformed” noses and the associated psychological qualities of stupidity and moral weakness’⁴²³. Lavater went so far as to claim that this “character of stupidity”... justified the African’s subordinate position in European society’.⁴²⁴

Building on the studies of Chalhoub and Gallagher, it is possible to interpret the nose in Machado’s work as an allegory for exclusionary mechanisms related to class and race. While the chapter in *Memórias Póstumas*, ‘A Ponta do Nariz’, focuses on the symbolic and ideological economic order, ‘O Segredo do Bonzo’ exposes the collective consequences of these ideologies, especially for Afro-Brazilian populations.

In ‘A Ponta do Nariz’, Brás makes a pseudo-philosophical and, more importantly, utterly illogical digression after he discovers that Virgília (his future lover) and the woman his father wishes him to marry, has chosen a more advantageous union with the wealthy politician Lobo Neves. Having observed the tip of his nose – a spiritual meditation akin to navel-gazing – Brás imagines that he could be a better husband than the wealthy politician Neves. He first recounts how fakirs focus on the tip of their noses to achieve celestial enlightenment – a practice still current in Buddhism.⁴²⁵

Essa sublimação do ser pela ponta do nariz é o fenômeno mais excelso do espírito, e a faculdade de a obter não pertence ao faquir somente: é universal. Cada homem tem necessidade e poder de contemplar o seu próprio nariz, para o fim de ver a luz celeste, e tal contemplação, cujo efeito é a subordinação do universo a um nariz somente, constitui o equilíbrio das sociedades. Se os narizes se contemplassem exclusivamente uns aos outros, o gênero humano não chegaria a durar dous séculos: extinguiu-se com as primeiras tribos. ⁴²⁶

The ‘conclusion’ of the meditation is both the universal and the social appeal of the nose. Brás continues by stating that contemplation of the nose directly affects the multiplication

⁴²² Gallagher, p. 162.

⁴²³ Gallagher, p. 162.

⁴²⁴ Gallagher, p. 162.

⁴²⁵ Tse-fu Kuan, ‘Cognitive operations in Buddhist meditation: interface with Western psychology’, *Contemporary Buddhism*, 13.1 (2012), 35-60 (p. 47).

⁴²⁶ Machado de Assis, *Memórias Póstumas de Brás Cubas* (New York: Luso Brazilian Books, 2004), p. 65.

of the races, suggesting an implicit connection between the nose and sexual virility. However, on an even more bizarre tangent, he cites the example of a hatmaker who is envious of a more successful competitor. In a similarly individualistic instance of navel-gazing, the tradesman questions why he is not as accomplished as his rival. Brás ludicrously concludes the story – which follows no linear logic – by stating that, while love multiplies the species, the nose provides its balance and equilibrium: ‘a conclusão, portanto, é que há duas forças capitais: o amor, que multiplica a espécie, e o nariz, que a subordina ao indivíduo. Procriação, equilíbrio’.⁴²⁷

The nose, then, can be interpreted as a complex symbol that interweaves love and commerce; while a few are successful in their love and business enterprises, others are doomed to contemplate their noses – or their personal and financial losses. For Roberto Schwarz, Brás’s purpose in this analysis is to allude to the secular bourgeois order in which individuals are compelled to compete against each other in a supposedly free market.⁴²⁸ However, as previously mentioned, Brazil’s nineteenth-century mode of production was characterised by slavery and patronage; Brás’s senseless explanation thus becomes a rhetorical fantasy and a ‘desfaçatez de classe’ that normalises capitalist and colonial exploitation. The higher classes (symbolised by Brás) follow ‘uma compensação imaginária’⁴²⁹ in the form of an exotic theory that provides a pseudo-metaphysical and universal explanation of a social order that is deeply unequal and segregated.

In ‘O Segredo do Bonzo’, the nose is not an individual body part but the source of an incurable collective problem: an illness that makes people’s faces monstrous and unrecognisable. Rather than presenting a wealthy male staring at the tip of his nose in a self-absorbed attitude, the story depicts a charlatan trying to ‘fix’ a communal problem. While Brás speaks of a universal philosophy of gains and losses, Diogo Meireles talks of a metaphysical nose that would function as well as a real one. Although the nose belongs to different classes, the proposed ‘cure’ is similar, one based on a metaphysical and absurd theory. If, on the one hand, Brás’s nose represents the individualism of the upper classes, the noses (in the plural) that Diogo Meireles wishes to remove belong to the collective mixed-race population. The nose could function within an allegory narrating racially charged scientific studies of the time in Brazil, most tellingly of criminology.

Afro-Brazilians were at the centre of the medical studies of the period, most prominently in the work of Raimundo Nina Rodrigues (1862–1906), a physician and

⁴²⁷ Assis, *Memórias*, p. 65.

⁴²⁸ Schwarz, *Um Mestre*, p. 159.

⁴²⁹ Schwarz, *Um Mestre*, p. 161.

professor of medicine at the Faculty of Medicine in Bahia, who was the first scholar to produce a rigorous ethnographical study on Afro-Brazilians. His efforts were such that, by the end of the nineteenth century, 'he had distinguished himself as the pioneer in two fields: Afro-Brazilian ethnology and legal medicine'.⁴³⁰ Rodrigues traced the origins of the African slave population in Brazil but his conclusions were based on a highly discriminatory premise. For him, the 'negro problem' would 'forever constitute one of the causes of our [Brazilian] inferiority as a people'.⁴³¹ His studies prompted another movement, that of the whitening of the population, which he speculated would improve social and biological conditions. At the beginning of the twentieth century, this idea would be further propelled by the lawyer Hermann de Soares and the doctor João Batista de Lacerda, along with the founder of the Brazilian Eugenics Society (1918), Renato Kehl (1889–1974). The general thinking in this respect was that, if the goal was the eventual elimination of the Afro-Brazilian population through miscegenation, women, with their reproductive powers, would and should be the driving force of such an enterprise. Although 'O Segredo do Bonzo' was published in the 1880s, three decades before the inauguration of the Brazilian Eugenics society (1918), Chalhoub argues that the narrator foreshadows the discriminatory problems of this train of thought. After all, the removal of the nose is symbolically related to the removal of the 'ugliness', 'monstrosity' and 'stupidity' that the white 'scientists' associated with African descent.

Another aspect of the nose can be explored in Machado's intertextual recourse to *Tristram Shandy* (1759) by Laurence Sterne, a copy of which can be found in Machado's library.⁴³² Published in nine volumes across eight years, the novel recounts episodes and philosophical debates related to the life and times of its eponymous first-person narrator. In the course of its non-linear, digressive form, the reader becomes aware of the narrator's unfortunate birth. In Volume 3, the family's careless maid Susannah tells Shandy's father that Dr Slop, 'in bringing him into the world with his vile instruments, ... has crushed his nose ... as flat as a pancake to his face'.⁴³³ The accident greatly distresses Tristram's father, Walter, who believes that 'no doubt, the breaking down of the bridge of a child's nose ... would vex any man in the world'.⁴³⁴ Walter supports his statement by referring to his great-grandfather, who had to pay his great-grandmother Shandy a jointure of £300 per annum

⁴³⁰ Skidmore, *Black into...*, p. 57.

⁴³¹ Nina Rodrigues, cited in Skidmore, *Black into...*, p. 60.

⁴³² Jobim, p. 66.

⁴³³ Laurence Sterne, *Tristram Shandy* <<https://www.gutenberg.org/files/39270/39270-h/39270-h.htm#page113>> [Accessed 06 August 2020], paragraph 155.

⁴³⁴ Sterne, *Tristram Shandy* (Chapter XXX), paragraph 157.

because of his short nose. Shandy declares that 'by that word I mean a nose, and nothing more, or less',⁴³⁵ an implicit acknowledgement that the word was a euphemism for the male sexual member.⁴³⁶

According to Gallagher, Shandy's deformed nose is a characteristic that stigmatises his existence because of the 'social significance of that injury: the association of the flat nose with the isolation and shame of venereal infection.'⁴³⁷ Sander L. Gilman notes that, since the sixteenth century, a missing or abnormal nose had been a typical sign of syphilis, marking the body as 'corrupt and dangerous'.⁴³⁸ According to the historian Sergio Carrara, Brazil had been struck by a high rate of syphilis since the eighteenth century. The doctors of the period attributed the spread of the disease to the general 'immorality' of the population and to prostitution, which was a 'consequência indefectível do ócio e da riqueza adquirida sem trabalho e fomentada pelo exemplo familiar dos escravos, que quase não conhecem outra lei que os estímulos da natureza'.⁴³⁹ Furthermore, the historian Bárbara Martins argues that syphilis was also seen as a 'feminine infirmity':

a sífilis constituía-se como uma doença de foro privado, uma enfermidade caracteristicamente feminina e silenciosa. Suas menores manifestações eram pouco conhecidas entre os médicos, as expressões da enfermidade eram, na maioria das vezes, tardias e atribuídas quase sempre às mulheres escravas.⁴⁴⁰

The facial disease in 'O Segredo do Bonzo' may thus be understood as an allusion to syphilis, which affected not only the idle rich (or wealthy landowners) but also, by extension and implication, an Afro-Brazilian slave population susceptible to sexual exploitation. In this sense, science, sexuality, capitalist production and exploitation overlap in the allegory of the nose, creating a colourful canvas that reflects not only the modern discourses of economy and medicine but also the power struggles and disputes of the realm of politics.

Informed by history and intertextual references to works of seventeenth- and eighteenth-century literature and science, 'O Segredo do Bonzo' revisits the legacy of science and truth in a society marked, as Schwarz has noted, by patronage and the modern illusion of social mobility. The story engages with the collective and social implications of science and how a few self-serving and opportunistic individuals appropriated racial

⁴³⁵ Sterne, *Tristram Shandy* (Chapter XXXI), paragraph 158.

⁴³⁶ In Portuguese, the word 'membro' can also mean the male sexual member. <<https://michaelis.uol.com.br/busca?r=o&f=o&t=o&palavra=membro>> [accessed 21 November 2020].

⁴³⁷ Gallagher, p. 195.

⁴³⁸ Sander L. Gilman, *Making the body beautiful: a cultural history of aesthetic surgery* (Princeton: Princeton University Press, 1999), p. 49.

⁴³⁹ Bernardino Gomes, cited in Sérgio Carrara, *Tributo a Vênus – a luta contra a sífilis no Brasil – da passagem do século até os anos 40*, (Rio de Janeiro: Fiocruz, 1996), p. 77.

⁴⁴⁰ Carrara, p. 77.

theories to manipulate and control others. In doing so it suggests parallels between ‘men of science’ and the popular healers who relied on their prestige – or fame – to convince and control the population. The collective complication of this ‘theatricalisation’ of scientific discourses is thus a lack of freedom on the part of the population: they become powerless when faced with the authority of the ‘man of science’, who claims expertise from having thoroughly studied the matter but whose knowledge is nonetheless plagued by Eurocentric prejudices.

In ‘O Segredo do Bonzo’, the spatial and temporal displacements that situate the text in an earlier time and another country create an ambivalent space of reflection. The Machadian nose is Sternian in its origins and refers allegorically to Brazilian society: unequal and stratified, with scientific institutions that perpetuated, rather than questioned racial hierarchies. When the reader decides that a nose is not merely a nose, to borrow from Sterne’s quotation from earlier in the analysis, the allegorical space created by Machado enables reflection on Brazilian social and historical conditions.

‘CONTO ALEXANDRINO’: THE TRAGIC SCIENCE

The short story ‘Conto Alexandrino’, published in Machado de Assis’s second collection, *Histórias sem data* (1884), tells the story of two émigrés, Stroibus and Pítias, who leave their home country, Cyprus, for Alexandria. As philosophers and physicians with a predilection for the vivisection of rats, Stroibus and Pítias wish to prove Stroibus’s theory that the blood of animals is composed of essences that determine personality traits in humans. After a period of successful experiments and vivisections, which apparently prove that their theory is sound, the scientists fall prey to their success and die following their own vivisection by a rival anatomist, Herófilo, who is supported by the ruler Ptolomeu. The tale concludes as a fable in which a dog and a mouse (typical subjects of scientific experiments) debate whether or not they should celebrate the end of the scientists: — “Século virá em que a mesma coisa nos aconteça”. Ao que retorquiu um rato: “Mas até lá, riamos!”

The short story has a hybrid structure deriving from several genres: it draws elements from the novel, but also from tragedy and fable. The plot is divided into four short chapters which follow a tragic curve (ascension, peripeteia, recognition and fall). However, the dénouement features anthropomorphised animals that comment on the fate of the scientists – as well as their own destiny. This combination of genres has led the critic Enylton de Sá Rego to designate the text as a ‘conto-novela de caráter fantástico’ which follows the

mixed genres typical of Menippean satire.⁴⁴¹ For Sá Rego, the language of satire coined by Menippus and developed by Lucian is essentially ambiguous and allows – if not indeed compels – the narrator to question absolute truths. The critic Mariana Vilela ⁴⁴² furthers Sá Rego’s argument by remarking that the principal characteristic of the short story is the humour through which the author destabilises the scientific theories of the nineteenth century – especially those related to racial hierarchy. While satire and humour are certainly present, the three critics fail to mention another tendency in the pre-fable part of the story: the mythic-tragic flaw that seals the destiny of Stroibus and Pitias. Taken together, the various generic strands of this hybrid text symbolically point to the mixed ‘nature’ of the Brazilian identity, which resists and problematises racial categories.

According to Jean-Pierre Vernant and Pierre Vidal Naquet, the true subject of Greek tragedy ‘is the social thought particular to the city-state, in particular, the legal thought that was then in the process of being evolved’.⁴⁴³ As a consequence of new regulations typical of the public organisation of the *polis*, tragedy represents a conflict of beliefs and truths in the form of the law – or, in Greek, *dike*. On the one hand, *dike* is related to heroic myth; on the other, it is associated with the political regulation of the city. The critics argue that:

What tragedy depicts is one *dike* in conflict with another, a law that is not fixed, shifting and changing into its opposite. To be sure, tragedy is something quite different from a legal debate. It takes as its subject the man actually living out this debate, forced to make a decisive choice, to orient his activity in a universe of ambiguous values where nothing is ever stable or unequivocal.⁴⁴⁴

In other words, Greek tragedy presents a conflict in which the heroes are torn between divine and worldly laws. ‘Conto Alexandrino’ may be read in light of the description of conflicting laws offered by Vernant and Naquet. If in Greek tragedy there are two types of laws or *dike*, so too there are in ‘Conto Alexandrino’: one represented by the quasi-divine heroes Stroibus and Pítias and the other by the influential anatomist Herófilo and the ruler Ptolomeu. While the two friends propose a theory they claim to be inspired by the gods, the rulers, taking advantage of their political power, enforce civic law. The tragic *agon* or dispute in Machado’s story revolves around the ethics of vivisection, not only

⁴⁴¹ Enylton de Sá Rego, *O Calundu e a Panacéia: Machado de Assis, a sátira menipeia e a tradição luciânica* (Rio de Janeiro: Forense Universitária, 1989) p. 106.

⁴⁴² Mariana Vilela, ‘O Conto alexandrino, de Machado de Assis, e o diálogo com a sátira menipeia, in *Estudos sobre leitura e literatura: uma proposta para a formação de educadores e mediadores de leitura*, ed. by Liliane Maria Jamir e Silva (Igarassu: Bagaço, 2019), I, p. 1-45.

⁴⁴³ Jean Pierre Vernant & Pierre Vidal-Naquet, *Myth and Tragedy in Ancient Greece* (New York: Zone Books, 1990), p. 25.

⁴⁴⁴ Vernant & Vidal-Naquet, p. 25.

echoing philosophical questions of humanity and justice but also challenging the scientific and literary methodologies developed in nineteenth-century Europe and Brazil when violence continued to be at the core of social and medical practices. When historically contextualised in relation to nineteenth-century Brazilian medical and judicial debates, the story offers another layer of allegorical meaning. According to Carlos Aguirre,⁴⁴⁵ criminology became in the 1880s a new area of study in Latin America. Imported from Europe, it purported to ‘solve’ and to ‘predict’ – not merely to punish – criminal and delinquent behaviour. Machado’s story poses questions related to the nature of crime and punishment in a rapidly changing society, on the verge of abolishing slavery and embracing, at least in principle, republicanism. A close reading of the text of ‘O Conto Alexandrino’ – which contains elements of tragedy, satire and fable – will allow us to understand how the theme of vivisection reveals aspects not only of nineteenth-century Brazilian medicine but also of governance, law and criminology.

Regarding the tragic cast of the story, the very names of Stroibus and Pítias are redolent of Greek myth. Stroibus is a lexical variation of Mount Strobilus, the mountain to which Prometheus – the Titan who stole fire from the gods⁴⁴⁶ – was banished and condemned by Zeus to have an eagle repeatedly prey on his liver in perhaps the first faint literary allusion to vivisection. Pítias appears in the legend of Damon and Pythias, which depicts an ideal friendship. Pythias, convicted of plotting against the tyrannical governor Dionysius I of Syracuse, asks the ruler to allow him to return home to settle his affairs; as a guarantee of his return, he leaves his friend Damon in his place. When Pythias returns, Dionysius is moved by the friends’ loyalty to each other and decides to set both free.⁴⁴⁷ In Machado’s story, Pítias is indeed a devoted friend to Stroibus, who often compares himself to Prometheus: ‘Eu violei o segredo dos deuses, acudia Stroibus’.⁴⁴⁸

In contrast to the mythical references, the setting is historical. The story mentions not only thinkers and rulers such as Herophilus (Herófilo) and Ptolemy (Ptolomeu) but also collections of books from the Ancient Alexandrian Library. Considering that Herophilus lived between 335 and 280 BCE, it is possible to infer that the king in question is Ptolemy II (Philadelphus) (308–246 BCE) or Ptolemy III (Euergetes) (284–221 BCE). According to

⁴⁴⁵ Carlos Aguirre, ‘Cárcere e Sociedade na América Latina, 1800 – 1940’, in *História das prisões no Brasil*, org. by Clarissa Nunes Maia and others (São Paulo: Rocco Digital), Chapter 1. EPUB file.

⁴⁴⁶ ‘Mount Strobilus’, J. R. March, *Dictionary of Classical Mythology*, Oxford: Oxbow Books <<https://web-a-ebscohost-com.ezp.lib.cam.ac.uk/ehost/ebookviewer/ebook/bmxlYmtfXzgzMDA3OV9fQU41?sid=943829c9-31c8-4c7c-b151-aa2fad547012@sessionmgr4008&vid=2&format=EB&rid=1>> [Accessed 26 October 2020], p. 419.

⁴⁴⁷ ‘Damon and Pythias’, *Encyclopædia Britannica* [online], <<https://www.britannica.com/topic/Damon-and-Pythias-Greek-legend>> [Accessed 03 November 2020].

⁴⁴⁸ Assis, ‘Conto Alexandrino’, p. 405.

Classical scholar John Vallance, the early Ptolemies were protective patrons of the arts and science: ‘prosopographical and biographical research indicates that many thinkers did make their way to Alexandria, and in some cases settled there’.⁴⁴⁹ Another intriguing detail is that Cyprus, since the victory of Alexander the Great over the Persian ruler Darius III (333 BCE), was under Egyptian economic and political rule. Ptolemy I and his successors⁴⁵⁰ were ruthless in their suppression of the Cyprian kingdoms and their annexation of the island to their Empire. The short story reproduces the historical configuration by which a certain ‘real-life’ is crafted onto the story of the myth. Moreover, as travellers from Cyprus, Stroibus and Pítias can be seen as peripheral thinkers who move towards a centre of economic and intellectual power, a structure that resembles the colonial scenario of Brazil vis-à-vis the metropolitan Portugal and Europe of the nineteenth century.

The first chapter of ‘Conto Alexandrino’, ‘No mar’, starts *in medias res*, with Stroibus explaining to Pítias that ‘os deuses puseram nos bichos da terra, da água e do ar a essência de todos os sentimentos e capacidades humanas’.⁴⁵¹ In their catalogue of essences, rats’ blood embodies dishonesty; oxen personify patience, spiders are great mathematicians and musicians and peacocks are full of passion. While each animal has just one essence, or characteristic, humans combine all of them in varying proportions, similar to the ancient theory of the humours commonly associated with the Greek physician Hippocrates. In the treaty *The Nature of Man*, written by his disciple and son-in-law Polybus,⁴⁵² Hippocrates explains how the four humours or essences operate in the body: ‘The human body contains blood, phlegm, yellow bile and black bile. These are the things that make up its constitution and cause its pains and health.’⁴⁵³ While health reflects the equilibrium of these substances, disease occurs when there is an imbalance. It is likely that Stroibus is a follower of Hippocrates and that he is developing the master’s theory, which convinces his friend, Pítias, to further their investigations in Alexandria. However, they will take their theory to an extreme, causing an imbalance in their own bodies. Their attitudes confirm Hippocrates’

⁴⁴⁹ John Vallance, ‘Doctors in the Library: The Strange Tale of Apollonius the Bookworm and Other Stories’, in *The library of Alexandria: Centre of Learning in the Ancient World*, ed. by Roy Macleod (London: Tauris, 2010), pp. 95-114 (p. 96).

⁴⁵⁰ Ptolemy II Philadelphus (308-246 BCE) was the son of Alexander the Great’s general, who found the Ptolemaic dynasty, with the longest rule over the Alexandrian empire. ‘Ptolemy II Philadelphus’ in *Encyclopædia Britannica* [online], <<https://www.britannica.com/biography/Ptolemy-II-Philadelphus>> [Accessed 17 August 2020].

⁴⁵¹ Assis, ‘Conto Alexandrino’, p. 405.

⁴⁵² G. E. R. Lolly, ‘Introduction’ in *Hippocratic Writings*, ed. by G. E. R. Lloyd, trans. by John Chadwick, W. N. Mann. (Harmondsworth: Penguin, 1978), p. 14.

⁴⁵³ Hippocrates. *Hippocratic...*, p. 359.

teachings which argue that imbalances are be harmful⁴⁵⁴ to oneself and, in consequence, to others.

In the second chapter, 'A Experiência', the narrator describes the arrival of Stroibus and Pítias in Alexandria with the sentence: 'Os garotos alexandrinos não trataram os dois sábios com o escárnio dos garotos cipriotas',⁴⁵⁵ suggesting they are more successful where they are not known. The statement also implies that theories, like travellers, are better received in places where they are not so widespread. It repeats the word 'garotos' (young men), perhaps suggesting that both indiscriminate enthusiasm and derision for ideals are typical of the younger generation. The narrator characterises Alexandria through cultural and natural stereotypes, and states that the city is 'pensativa como a esfinge, circumspecta como as múmias, dura como as pirâmides; não tinha tempo, nem maneira de rir'.⁴⁵⁶ The adjectives, which attribute human characteristics to the city, probably refer to the previous noun 'garotos'. Therefore, the young men and the city – characterised as 'circumspecta', 'pensativa' and 'dura' – may be interpreted as an allegory of the new generation of enthusiastically scientific intellectuals in Rio de Janeiro, whom Machado de Assis had previously critiqued in his article 'A Nova Geração' (1879), which we also quoted in the introduction. It is worth citing again here, especially as in it Machado identifies the new generations as 'moços' or 'mocidade', underscoring their youth and naivety: 'geralmente, a mocidade, sobretudo a mocidade de um tempo de renovação científica e literária ... releiam os moços o seu Spencer e seu Darwin. Fugam também a outro perigo: o espírito de seita, mais próprio das gerações feitas e das instituições petrificadas'.⁴⁵⁷ As noted previously, although Machado supported science when applied rigorously, he disapproved of hasty and uncritical appropriations by younger writers. Similarly, he criticised the exaggerated and indiscriminate use of specialist terminology, whether of Positivism as an intellectual movement or Naturalism as an aesthetic programme, both of which were associated with French culture. Accordingly, 'Conto Alexandrino' makes a reversal, it suggests that the Brazilian 'moços' accepted French scientific and artistic ideas in the same way that the Alexandrian 'garotos' – the ones in the centre of intellectual power – accepted Cyprian philosophy – the one which was supposedly from a peripheral nation. Both type of 'garotos' accepted foreign ideas too hastily, over enthusiastically and, thus, irresponsibly. According

⁴⁵⁴ Hippocrates, in his ethical oath, stresses that physicians shall refrain from harming patients. 'Hippocratic Oath', in *Encyclopædia Britannica* [online], <<https://www.britannica.com/topic/Hippocratic-oath>> [Accessed 25 October 2020].

⁴⁵⁵ Assis, 'Conto Alexandrino', p. 406.

⁴⁵⁶ Assis, 'Conto Alexandrino', p. 406.

⁴⁵⁷ Assis, 'A Nova Geração' (para 70 of 71).

to the critic Eva Paulino Bueno, 'the adoption by the Brazilian intelligentsia of positivist ideas ran parallel to the adoption of naturalist aesthetics'⁴⁵⁸ while, for Luiz Nazario, Brazilian naturalist literature tended to instinctive and physiological impulses. Violent outbursts and decadent eroticism abounded, as did explorations of homosexuality, lesbianism and hereditary madness, all of which served to advance the thesis that the conscious will was incapable of entirely subduing man's animal nature.⁴⁵⁹ For José Guilherme Merquior, the 'geração de 1870' sought to investigate and represent society in accordance with the materialistic principles of empiricism, praising Claude Bernard's *Introduction à l'étude de la médecine expérimentale* (1865),⁴⁶⁰ which served as a model for Émile Zola's essay *Le Roman Experimental* (1893) and the preface to *Thérèse Raquin* (1868). In both texts, Zola, drawing on the medical studies of Bernard, likens his role as an 'experimental' novelist to that of a forensic surgeon and anatomist: 'Notre domaine est le même que celui du physiologiste, si ce n'est qu'il est plus vaste. Nous opérons comme lui sur l'homme.'⁴⁶¹ Arguing that the naturalist novel entailed the scientific investigation of reality, Zola contended that the novelist should observe and reproduce the environment of the characters and, like a surgeon, 'dissect' their psychological states. Redeploying Bernard's method of dissection and vivisection in the realm of narrative fiction, Zola would frequently use surgical metaphors. For example, in his justification of *Thérèse Raquin*, he states: 'J'ai simplement fait sur deux corps vivants le travail analytique que les chirurgiens font sur des cadavres.'⁴⁶² According to Ana Oancea, Zola's taste for physiology was an effect of the polemical debate regarding vivisection in French society:

using the key issue of vivisection, the writer defines his position as a literary authority by leveraging the negative public perception of the practice against the savants' own positive interpretation, echoing the argumentation presented by the medical establishment before the *French Académie de Médecine* in 1863, and repeated in subsequent confrontations through the 1880s.⁴⁶³

Claude Bérnard was an expert anatomist, whose skills were developed under the tutelage of François Magendie, chair of the medical faculty at the *Collège de France*.⁴⁶⁴

⁴⁵⁸ Eva Paulino Bueno, 'Brazilian Naturalism and the Poetics of Origin', *MLN Hispanic Issue*, 107.2 (1992), 363-395, (p. 372).

⁴⁵⁹ Nazario, p. 30.

⁴⁶⁰ Merquior, 'Naturalismo', p. 336.

⁴⁶¹ Émile Zola, *Le Roman Experimental*. Paris: Bibliothèque Charpentier, 1902, p. 48. <<https://archive.org/details/leromanexprimeoozola/page/n7/mode/2up?ref=ol&view=theater&q=physiologiste>> [Accessed 24 April 2022].

⁴⁶² Émile Zola, 'Preface to *Thérèse Raquin*', <<http://lettres.ac-rouen.fr/francais/zola/textes/raq-pref.html>> [Accessed 30 October 2020].

⁴⁶³ A. Oancea, 'Literature and vivisection: reevaluating Emile Zola's interpretation of Claude Bernard', *Neohelicon* 45 (2018), 671-687 (p. 672). <<https://doi.org/10.1007/s11059-018-0438-9>> [Accessed 31 October 2020].

⁴⁶⁴ Oancea, p. 681.

Magendie had a reputation for being ruthless with his experiments, which outraged the general public as well as anti-vivisectionists and many of his scientific peers. For example, his work on the function of nerve roots was achieved through the vivisection of puppies.⁴⁶⁵ Bérnard followed in the footsteps of his master and became an authority on the subject. According to the physician Joseph Schiller, Bérnard's experiments furthered the study of the 'nervous system as the regulator of bodily functions'⁴⁶⁶ but relied on vivisection despite the 'opposition which gained ground with the public'.⁴⁶⁷ Schiller argues that the first people to contest the procedure were doctors and other medical specialists in the 1830s. A movement of 'organized antivivisectionism did not take shape before 1882, when the *Société Française contre la vivisection*, under the honorary chairmanship of Victor Hugo, manifested itself in a threefold aspect: scientific, social [and] moral'.⁴⁶⁸ Bernard's research provoked objections within his own family: his wife and daughters joined animal protection societies and supported shelters.⁴⁶⁹ Antivivisectionist debates became so important that, in 1863, Napoleon III requested that Bérnard participated in a commission 'to examine cruelty against animals in medical and veterinary practice'.⁴⁷⁰ Oancea stresses that although Bérnard was against gratuitous animal abuse, he argued that the animals' suffering was justified in the quest for scientific knowledge and discoveries. The commission ruled for a standard practice that would exclude the public from vivisection theatres, making the procedures a laboratory practice exclusively for students and teachers of medicine.⁴⁷¹ These debates were often reported in the *Revue de Deux Mondes*⁴⁷² which circulated in Brazil and with which Machado was familiar,⁴⁷³ so familiar, in fact, that in his chronicle of 14 March 1885, the author, under the pseudonym Lélío, briefly mentions the procedure. While commenting on violent street fights and knife crimes in Rio de Janeiro, Lélío states: 'Não se trata de vivisseção, em que um certo abuso, por maior que seja, é sempre científico, e com o qual, só padece cachorro, que não é gente, como se sabe'.⁴⁷⁴ Although the chronicle appears pro-vivisection, the highly satirical tone of the piece is somewhat ambiguous. It is

⁴⁶⁵ Oancea, p. 681.

⁴⁶⁶ Joseph Schiller, 'Claude Bernard and Vivisection', *Journal of the History of Medicine and Allied Sciences*, 22.3 (1967), 246-260 (p. 252).

⁴⁶⁷ Schiller, p. 253.

⁴⁶⁸ Schiller, p. 254.

⁴⁶⁹ Thalia Field, *Experimental Animals (A Reality Fiction)* (New York: Solid Objects, 2016).

⁴⁷⁰ Oancea, p. 682.

⁴⁷¹ Oancea, p. 683.

⁴⁷² Noah K. Davis, 'The Moral Aspects of Vivisection', *The North American Review*, 140. 340 (1885), 203- 220 (p. 205).

⁴⁷³ Machado de Assis was an avid reader of the *Revue de Deux Mondes*. The character Sofia, from *Quincas Borba* (1896) subscribes to the periodical and many historians analysed his interest in the magazine. See: Socorro de Fátima P Barbosa, *Livros e Periódicos nos séculos XVIII e XIX* (João Pessoa: Editora UFPB, 2014), pp. 261, 262.

⁴⁷⁴ Assis, *Crônicas Completas*, p. 577.

possible to affirm, however, that the author was aware of the scientific and social debates around vivisection.

The narrator of 'Conto Alexandrino', ironically and satirically, channels aspects of the aforementioned vivisection debates, since Stroibus and Pítias start by cutting open live rats and drinking their blood to prove that rodent blood is responsible for a desire to steal that is intrinsic, they claim, in thieves. Contrasting Stroibus's 'pulso magistral e prático' to Pítias's hesitation during the operations, the narrator uses a descriptive language that is so vivid in its crude details that it conjures up a scene of torture. Without openly condemning the practice, the passage, rife with irony, informs the readers of the procedure, inviting them to reflect on its cruel subtext. Furthermore, Machado anthropomorphises the animal's suffering by using human rather than animal names for body parts: the rat's paws ('patas') become human feet ('pés').

Stroibus engaiolava os ratos; depois, um a um, ia-os sujeitando ao ferro. Primeiro, atava uma tira de pano no focinho do paciente; em seguida, os pés, finalmente, cingia com um cordel as pernas e o pescoço do animal à tábua da operação. Isto feito, dava o primeiro talho no peito, com vagar, e com vagar ia enterrando o ferro até tocar o coração, porque era opinião dele que a morte instantânea corrompia o sangue e retirava-lhe o princípio. Hábil anatomista, operava com uma firmeza digna do propósito científico. Outro, menos destro, interromperia muita vez a tarefa, porque as contorções de dor e de agonia tornavam difícil o meneio do escalpelo; mas essa era justamente a superioridade de Stroibus: tinha o pulso magistral e prático.

The narrator concludes the experiment by stating that Stroibus and Pítias had to kill another 44 rats to verify the colour of the animals' retinae at the moment of their death. Such obsessively repetitive procedures were typical of vivisection, as the critic Noah K. Davis argues. Quoting scientific periodicals of the nineteenth century, he states that Magendie experimented on (and killed) 4,000 dogs to prove Charles Belle's theory of the motor and sensory functions of the nerves. He then proceeded to experiment on 4,000 more to disprove it.⁴⁷⁵ Without openly condemning vivisection, Machado's clinical narrator nevertheless provides his readers with thought-provoking and repellent details in which the narrator becomes ironically complicit, by virtue of his own minute description of the suffering.

The critic Lúcia Granja takes a different approach to the preceding passage and its resemblance to scientific papers. She argues that Machado drew on scientific articles published in the Brazilian newspapers of the late nineteenth century. Drawing a

⁴⁷⁵ Davis, p. 206.

comparison with an experiment described by the doctor João Barbosa Rodrigues⁴⁷⁶ in the ‘Ciência’ section of the *Jornal do Comércio* in 1879, Granja questions whether readers of the period were used to the visceral language used by the doctor in Machado’s story. While the question is compelling, since it implicitly recognises that the author was creatively appropriating contemporary scientific language, it misses the scientific, social and moral aspects of the (anti)-vivisectionist debate. Pro-vivisectionists subscribed to an anthropocentric view of science, prevalent in the nineteenth century, according to which mankind was a superior species and, thus, in many respects, above nature. As the veterinarians Ísis A. P. Tinoco and Mary L. A. Correia argue:

Com o advento do racionalismo e da prática da vivissecção, os animais não só são considerados diferentes dos seres humanos, mas também inferiores a estes, sendo rechaçados das considerações éticas e morais, sendo assim justificado todo tipo de abusos infligidos aos animais até os dias atuais.⁴⁷⁷

Tinoco and Correa suggest, in short, that vivisections broadened the scope of the medieval Christian idea of the Great Chain of Being, in which, as A. D. Scott and D. A. Baum argue, ‘organisms could be arranged as the rungs on a ladder, with rocks and minerals at the bottom moving up through plants and “simple” animals, with humans close to the pinnacle.’⁴⁷⁸ As a result, if animals are inferior – or at a lower stage of development – humans should use them for scientific ends. Complementing the veterinarians’ analysis, it is relevant to add that the superiority paradigm was also predicated on the notion of a certain type of humanity – European, aristocratic, white and male – as developed in the next chapter of ‘Conto Alexandrino’.

The third chapter, ‘Victory’, provides the Aristotelian moments of anagnorisis and peripeteia, or the recognition and change causing the action traced so far to reverse its

⁴⁷⁶ Experiment quoted by Granja: Primeira experiência. ‘Em um porquinho da Índia adulto, foi praticada uma incisão de 2 centímetros de extensão na parte interna da coxa entre a pele e o tecido celular. Algumas gotas de sangue são recolhidas da ferida e postas em um vidro apropriado para ser observado ao microscópio pelo Dr. Gama Lobo. Uma flecha envenenada da grossura de uma vareta de chapéu de sol, e pontiaguda é posta em contato da ferida por espaço de segundos marcados a relógio de segundos independentes. Solto o animal, ainda corre; 1 minuto e 35 segundos depois paralisados os quartos posteriores, as pupilas dilatadas, manifesta movimentos convulsivos parciais, as orelhas apenas acusam sensibilidade, a cabeça pende para um lado, completa resolução de todos os músculos, insensibilidade geral, resfriamento e finalmente a morte.(...)’ Lúcia Granja, ‘Antes do livro, o jornal: “Conto Alexandrino”’, *Luso-Brazilian Review*, 46. 1, (2009), 106-114 (p. III).

⁴⁷⁷ Ísis Alexandra Pincella Tinoco & Mary Lúcia Andrade Correia, ‘Reflexões Éticas sobre a vivissecção no Brasil’, *Anais do XIX Encontro Nacional do CONPEDI* (Fortaleza), 09-12 June 2010, pp. 6549-6577. <<http://www.publicadireito.com.br/conpedi/manaus/arquivos/anais/fortaleza/3302.pdf>> [Accessed 05 November 2020], p. 6551.

⁴⁷⁸ A. D. Scott & D. A. Baum, ‘Phylogenetic Tree’ in M. Richard, *Encyclopedia of Evolutionary Biology* (Academic Press, 2016) 270-276, p. 270, <https://www.sciencedirect.com/science/article/pii/B9780128000496002031> [Accessed 15 September 2020].

course. Soon after finishing their experiments, in which they drank rats' blood (which allegedly causes an innate desire to steal), Stroibus and Pítias believe their theory is proved correct because they exhibit a proficient desire and ability to commit crime. While the latter plagiarises his friend's ideas, the former steals products from docked ships. Leaving no trace behind, they purloin books from the library of Alexandria – Homer and Plato, amongst others. The scholars' ascent, full of pride (*hubris*) is precisely their tragic flaw or *hamartia*, Aristotle's error of judgement from the *Poetics*.⁴⁷⁹ Their experiment leads them to recognise themselves as criminals, and they are arrested. As prisoners, they become victims of Herófilo (or Herophilus), who, according to Vallence (quoting the Roman encyclopaedist A. Cornelius Celsus), 'pursued detailed anatomical researches into the human body by means of vivisectioning the bodies of criminals supplied "out of prison by the Kings"'.⁴⁸⁰ In this sense, the narrator, at once allegorising and satirising a hybrid mythic and historical account, problematises the ethics of scientific experimentation, first in animals, then in an 'inferior criminal' class of people.

The last chapter, 'Plus Ultra', describes the fall and punishment of Stroibus and Pítias. As soon as Herófilo learns that Pítias and Stroibus have been sentenced to prison, he uses his power to convince the ruler Ptolomeu to change the laws and to allow him to use Egyptian criminals on their way to execution – amongst them Stroibus and Pítias – for his experiments. His argument is:

As prisões egípcias estão cheias de criminosos, e os criminosos ocupam, na escala humana, um grau muito inferior. Já não são cidadãos, nem mesmo se podem dizer homens... Além disso, uma vez que tem de expiar com a morte os seus crimes, não é justo que prestem algum serviço à verdade e à ciência? A verdade é imortal; ela vale não só todos os ratos, como todos os delinquentes do universo.⁴⁸¹

The language Herófilo applies is consistent with a hierarchical view of humanity. If criminals belong to a lower stage ('degrau inferior') of human development, they should contribute to the advancement of 'a verdadeira' ('true') science with their bodies and suffering. In this case, the truth is related to Herófilo's appropriation of science: a ruthless dogma that sees criminals as disposable bodies and disregards the social or historical conditions that may have led individuals to a life of crime. This version of science also echoes the 'pomadistas' notions of fame and power; the doctor's opinion comes first before everything else.

⁴⁷⁹ Aristotle, XIII Poetics, < <http://classics.mit.edu/Aristotle/poetics.2.2.html> > [Accessed 24 October 2020].

⁴⁸⁰ Vallance, p. 97.

⁴⁸¹ Assis, 'Conto Alexandrino', pp. 408, 410.

Convinced by Herófilo's speech, Ptolomeu agrees to allow Herófilo to experiment on the prisoners, as do the citizens of the 'serious' city of Alexandria; in fact, 'não houve nenhuma manifestação contra a medida'.⁴⁸² The Greek master, Herófilo, followed by his disciples, starts to cut open the criminals of Alexandria's prisons one by one, without their peers knowing of their fate. Motivated by selfishness and arrogance, Herófilo realises that, in order to be more famous than Stroibus and Pítias, he has to advance their research and verify whether their motivation for stealing is located in their hands or their fingers. Therefore, he needs to dissect their hands. Although they beg Herófilo to spare their lives, the Greek master reminds them that true philosophers need to sacrifice their bodies to science. The narrator continues:

Dito isto, começaram pela experiência das mãos, que produziu ótimos resultados, coligidos em livros, que se perderam com a queda dos Ptolomeus. Também as mãos de Pítias foram rasgadas e minuciosamente examinadas. Os infelizes berravam, choravam, suplicavam; mas Herófilo dizia-lhes pacificamente que a obrigação do filósofo era servir à filosofia, e que para os fins da ciência, eles valiam ainda mais que os ratos, pois era melhor concluir do homem para o homem, e não do rato para o homem. E continuou a rasgá-los fibra por fibra, durante oito dias. No terceiro dia arrancaram-lhes os olhos, para desmentir praticamente uma teoria sobre a conformação interior do órgão. Não falo da extração do estômago de ambos, por se tratar de problemas relativamente secundários, e em todo caso estudados e resolvidos em cinco ou seis indivíduos escalpelados antes deles.⁴⁸³

The description of the dissection of Stroibus and Pítias mirrors that of their vivisection of rats. The same clinical language is used in both descriptions, as is the method of sacrificing extra subjects to verify a physiological hypothesis. However, here the narrator tints the predominantly medical objectivity with quasi-gothic hues. The repetitive use of the word 'rasgar' (to scrape or rip), allied to the expressive gradations which characterise the scholars' suffering ('berravam', 'choravam', 'suplicavam'), aligns Herófilo's 'laboratory' with a torture chamber or, indeed, a slaughterhouse. Unperturbed by the pain of his subjects, his victims, Herófilo argues that it is for the good of philosophy, science and knowledge that he does what he does. Stroibus and Pítias then experience a sudden change of heart and seem happy to subject themselves to the atrocious punishment, even as their screams indicate otherwise.

The revolting picture of the punishment of – or experiment on – Stroibus and Pítias, combined with Herófilo's lack of compassion in the face of their suffering, reflects Claude

⁴⁸² Assis, 'Conto Alexandrino', pp. 408, 410.

⁴⁸³ Assis, 'Conto Alexandrino', p. 411.

Bérnard's description of his experimental laboratory: 'If a comparison were required to express my idea of the science of life, I should say that it is a superb and dazzlingly lighted hall which may be reached only by passing through a long and ghastly kitchen.'⁴⁸⁴ The physiologist's view was met with outrage by the anti-vivisectionists, who, according to J.T.H. Connor, claimed that experiments on living beings would brutalise doctors and medical students: 'Thus exposure to such terrible sights, sounds, and smells could only result in scientists and doctors becoming immune to discomfort and hence turning into unfeeling beings themselves.'⁴⁸⁵ Similarly, the anatomists of 'O Conto Alexandrino' have all, paradoxically, been dehumanised by their scientific pursuit of knowledge about the human body. By using the dehumanising theme, again echoing the medieval idea of the Great Chain of Being, Machado invites his readers to question concepts of inferiority more generally, asking what and who is 'inferior'. Regarding the epistemology of this hierarchy, he questions the categories used as a basis and, more importantly, he asks who has the power to make themselves judge, to create a hierarchy of living beings.

Complementing the physicians' lack of pity, the narrator adds an ironic twist by suggesting that scientists belong to a superior kind of being: Herófilo's power is such that he convinces the governor, Ptolomeu, to allow scientific experiments on criminals. In this way, Herófilo is similar to Simão Bacamarte ('O Alienista'): both are powerful physicians; both convince their rulers to support their experimental endeavours, and both belong to an allegedly 'advanced' level of humanity. This parallel allows us to return to Machado's critique of Comtean positivism, which envisioned scientists as flawless creatures, capable of judging humanity and nature.⁴⁸⁶ In 'Conto Alexandrino' this is cryptically referenced both in the rats, who are anti-semitically compared to the 'primitive' Hebrews⁴⁸⁷ by the narrator, and the prisoners, whom Herófilo calls a lower 'class of humans'. Referencing the Exodus in which Moses led the recently liberated but still persecuted Hebrews out of Egypt to the promised land, Machado reveals a subtle connection with Brazilian society and its own history of slavery. As for the prisoners, black slaves were considered criminal and dangerous by their white masters.⁴⁸⁸

⁴⁸⁴ Bernad, p. 61.

⁴⁸⁵ J.T. Connor, 'Cruel knives? Vivisection and biomedical research in Victorian English Canada', *Can. Bulletin Medical History*, 14 (1997) 37–64 (p. 54).

⁴⁸⁶ See analysis of 'O Alienista'.

⁴⁸⁷ 'Os ratos egípcios, se pudessem saber de um tal acordo, teriam imitado os primitivos hebreus, aceitando a fuga para o deserto, antes do que a nova filosofia'. Assis, p. 408.

⁴⁸⁸ The historian Célia Maria Marinho de Azevedo argues that crimes committed by slaves increased at the end of the nineteenth century: 'Na virada das décadas de 1860 e 1870, os relatórios dos chefes de polícia dirigidos aos presidentes de província expressam uma crescente preocupação com as lutas dos escravos. Individualmente ou em pequenos grupos, de forma premeditada ou não, eles se revoltavam e matavam, e ao

Slavery and the naturalised hierarchy of humanity ‘justified’ the penal laws of the Empire. According to Gláucia Tomaz de Aquino Pessoa,⁴⁸⁹ the Penal Code of 1830 ascribed different punishments for slaves and free men. Although both could be given prison sentences, physical punishment – which included torture and mutilation – was forbidden for free criminals. If the offender was a slave or an indentured servant, they could be flogged and returned to their owner, who would keep them in chains for however long they deemed necessary. The practice effectively legitimised violence against black slaves, who could be flogged up to a thousand times, which typically resulted in injuries such as muscle and bone tears⁴⁹⁰ if not painful death. The historian Carlos Eduardo Moreira de Araújo adds that the Calabouço prison in the region of Morro do Castelo was only for slaves who had committed crimes against their masters.⁴⁹¹ The division between slaves and free men, in judicial terms, legitimised physical punishment against slave populations.⁴⁹² Moreover, as the historian Luis Francisco Carvalho Filho observes, legislators preserved the death penalty in cases of homicide, robbery and rebellion by slaves as a way to provide a divisive example.⁴⁹³ The lack of emotion shown by the anatomists in the face of pain thus recalls the widespread violent mutilation and killing of slaves by plantation owners and penitentiary agents. Moreover, the scientists’ self-interest is aligned with the fact that, as Carvalho Filho⁴⁹⁴ notes in relation to penal laws, elites were rarely held accountable for their crimes, shielded as they were by their economic and political power.

As discussed above, criminology became an important area of study in nineteenth-century Latin America including Brazil and made explicit links between slavery, race and crime. For the historian Gizele Neder, criminology, along with sociology and psychology, emerged within the context of the republican movements of the late nineteenth and early twentieth centuries and was a consequence of the ‘necessidade de legitimação da dominação burguesa, que estava sendo fortemente contestada na virada do século’.⁴⁹⁵

invés de simplesmente fugir, como era costumeiro — internando-se em quilombos nas matas ou mesmo em agrupamentos de leprosos à beira das estradas —, começam a se apresentar espontaneamente à polícia, como se julgassem de seu direito matar quem os oprimia.’ Célia Maria Marinho Azevedo, *Onda Negra, Medo Branco: O Imaginário das Elites no século XIX* (Rio de Janeiro: Paz e Terra, 1987), p. 180.

⁴⁸⁹ Gláucia Tomaz de Aquino Pessoa, ‘Código Criminal do Império’ (2006) <<http://mapa.an.gov.br/index.php/menu-de-categorias-2/281-codigo-criminal>> [accessed 17 February, 2020].

⁴⁹⁰ Clovis Moura & Soraya Silva Moura, *Dicionário da Escravidão Negra no Brasil* (São Paulo: EDUSP, 2004) p. 17.

⁴⁹¹ Carlos Eduardo Moreira de Araújo, ‘Cárceres imperiais: a Casa de Correção do Rio de Janeiro. Seus detentos e o sistema prisional do Império, 1830-1861’, (unpublished Doctoral Thesis. UNICAMP, 2009), p. 21.

⁴⁹² M. S. Santos, *Os Porões da República – A Barbárie nas Prisões da Ilha Grande: 1894-1945* (Rio de Janeiro: Garamond, 2009), p. 58.

⁴⁹³ Luis Francisco Carvalho Filho, ‘Impunidade no Brasil: Colônia e Império’, *Estudos Avançados*, 18, 51 (2004), 181-194 (p. 189). <<https://doi.org/10.1590/S0103-40142004000200011>> [Accessed 05 November 2020].

⁴⁹⁴ L. F. Carvalho Filho, p. 188.

⁴⁹⁵ Gizele Neder, ‘Sentimentos e ideias jurídicas no Brasil: Pena de Morte e Degredo em dois tempos’, in *Cárcere e Sociedade*, Chapter 2, paragraph 28. EPUB file.

Science, as Neder observes, often stemmed from and contributed to biased discourses, designed to legitimise the white, bourgeois hegemony. The majority of the criminologists of the period were influenced by the physician Cesare Lombroso and by positivist criminology, which connected crime, race and genetic inheritance. The physicians and criminologists of Imperial Brazil took on board Lombroso's ideas and developed the view of a 'criminoso brasileiro' who was typically non-white – 'não branco'. As Carlos Aguirre argues,

a maneira como os criminólogos conceberam as relações entre o delito e a raça em suas análises sobre a criminalidade refletia e, às vezes, reproduzia a noção bastante equivocada de que os não-brancos eram mais propensos a cometer delitos e mais difíceis de recuperar que os brancos.⁴⁹⁶

As previously mentioned, the Brazilian doctor Nina Rodrigues was a specialist in the fields of both medicine and law. He expanded and taught Lombroso's ideas and, in his studies regarding the 'degenerate', claimed that black people had a 'natural' predisposition for crime as a result of their biological constitution and environment.⁴⁹⁷ In one report about a young black man who murdered his father, he concluded, 'mas a precocidade deste criminoso, a natureza do seu crime em que se revela uma ausência completa do sentimento de piedade, ou pelo menos simpatia para com o seu progenitor'.⁴⁹⁸ Rodrigues complemented his studies, not surprisingly, with a classification of races, which identified the white Aryan as superior and the black African as inferior, with a variety of 'mestiços' in between.⁴⁹⁹ In order to resolve the criminal and the 'racial problem', so tightly linked, he suggested different penal codes for different races. Although the government did not adopt such a radical measure, the unequal penal laws of the Empire, combined with these new criminological studies, effectively turned black slaves into 'natural-born' criminals, deserving of the cruellest punishments. As Anderson Silva⁵⁰⁰ remarks, although the creation of prisons and the legal status of black people entailed different processes, they were intimately connected. At the same time that measures towards the abolition of slavery were approved – in the Tráfico de Escravos (1851), Lei do Ventre Livre (1871), Lei dos Sexagenários (1885) and Lei Áurea (1888) – violence from police and prison officers rose.

In literary terms, Brazilian naturalism channelled criminological and physiological studies, narrating violent scenes of criminals and (ex)-slaves being flogged and abused. For

⁴⁹⁶ C. Aguirre in *Cárcere e Sociedade*, Chapter I, paragraph 32. EPUB file.

⁴⁹⁷ Silva, 'Direito e Medicina...', p. 21.

⁴⁹⁸ Nina Rodrigues, cited in Silva, 'Direito e Medicina...', p. 38.

⁴⁹⁹ Silva, 'Direito e Medicina...', p. 40.

⁵⁰⁰ Anderson Moraes de Castro e Silva, 'Do império à república considerações sobre a aplicação da pena de prisão na sociedade brasileira', *Revista Epos* 3.1 (2012) <http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S2178-700X2012000100004&lng=pt&nrm=iso> [accessed 19 February 2019].

example, the first chapter of Adolfo Caminha's *Bom Crioulo* (1895) explicitly describes the flogging of the sailors Herculano and Amaro for their 'crimes' of masturbation and homosexuality (Amaro assaulted a colleague who offended his beloved Aleixo). The crimes go against the reproductive ethos of the heteronormative, post-colonial, capitalist order. The language used by the narrator of the novel is similar to that used to describe the scientific experimentations in 'Conto Alexandrino': the victims beg for their lives while the torturers sadistically enjoy the suffering of their victims.

O rapaz empinou-se na ponta dos pés, arregalando muito os olhos, esfregando as mãos.
Ah! Gemeu com um grito de dor. Pe.. pe... pelo amor de... de... de Deus, seu... seu... comandante!
Vamos, vamos!...
Seguiram-se outras chibatadas implacáveis, brutais caindo uma a uma, dolorosamente, no corpo franzino do marinheiro.
Ele não teve jeito senão suportá-las todas, uma a uma, porque de nada lhe serviam os gritos, as súplicas, as lágrimas...
Hei de corrigi-los, bradava o comandante, aceso em súbita cólera, mal humorado sob a luz ardentíssima do meio dia tropical. Hei de corrigi-los: corja.⁵⁰¹

In this passage, Herculano's suffering escalates with the gradation of the words 'gritos', 'súplicas', 'lágrimas', similar to the 'berravam', 'choravam', 'suplicavam' of Stroibus and Pítias. However, Herculano's cries, combined with the heat of the midday sun, only serve to enrage the commander, who continues flogging him. The detail of the weather is essential since it shows how naturalists also applied in their novels the (then) scientific idea that the environment corrupts men.

The novel *A Carne* (1888) by Júlio Ribeiro similarly features a scene in which a slave is punished for trying to escape from the farm where the heroine Lenita lives. In addition to comparing the executioner's technique to that of a skilled professional (perhaps a scientist or an artist), the passage reproduces the painful spasms of the black man and depicts Lenita in a quasi-sexual euphoria while observing the cruel scene:

O caboclo tomou posição à esquerda, mediu a distância, pendeu o corpo, recuou o pé esquerdo, ergueu e fez cair o bacalhau da direita para a esquerda, vigorosamente, rapidamente, mas sem esforço, com ciência com arte, com elegância de profissional apaixonado pela profissão.
As duas correias tesas, duras, sonoras, metálicas, quase silvavam, esfolando a epiderme com as pontas aguçadas.
Duas riscas branquicentas, esfareladas, desenharam-se na pele roxa da nádega direita.

⁵⁰¹ Adolfo Caminha, *O Bom Crioulo* <www.ebooksbrasil.com> [Accessed 13 March 2022], p. 16.

O negro soltou um urro medonho.

... – Uma! duas! três! cinco! dez! quinze! vinte! vinte e cinco!
Os uivos do negro eram roucos, estrangulados: a sua carapinha estava suja de terra, empastada de suor.

O caboclo largou o bacalhau sobre o estrado do tronco e disse:
– Agora uma salmorazinha para isto não arruinar.

E, tomando da mão do administrador uma cuia que esse trouxera, derramou o conteúdo sobre a derme dilacerada.

O negro deu um corcovo; irrompeu-lhe da garganta um berro de dor, sufocado, atroz, que nada tinha de humano. Desmaiou.

Lenita sentia um como espasmo de prazer, sacudido, vibrante; estava pálida, seus olhos relampejavam, seus membros tremiam. Um sorriso cruel, gelado, arregaçava-lhe os lábios, deixando ver os dentes muito brancos e as gengivas rosadas.⁵⁰²

The excerpt showcases the executioner's lack of pity for the slave: after flogging the man more than twenty times, he throws salt water on the black man's wounds, causing him to lose consciousness – or perhaps to die? The slave suffers like an animal: the narrator states that his screams had nothing human about them. Lenita is similarly zoomorphised and described as a bitch in heat, with spasms and a broad smile that exposes her pink gums.

Bom Crioulo and *A Carne* are just two examples of naturalist narratives that describe physical punishments in a painstakingly realistic and gruesome manner. Like many other literary works, both deploy scientific medical terminology. Despite their politically motivated denunciation of corporal abuse, their exaggerated tone replays and reasserts the degradation of black people – and, frequently, women – a persistent feature of criminological and medical studies of the period. Countering such degradation, Machado performs a significant reversal. While positivist criminologists contended that black people and 'mestiços' were immoral and cruel, it is the scientists (not the executioners) who are merciless in 'Conto Alexandrino'. It is as if Nina Rodrigues' previously quoted report with its naturalist descriptions had been turned against itself, for it is the supposedly reasonable and civilised men of science who engage in barbarous acts. Their cruelty circles back to previously examined ideas of vivisection and mutilation. 'Conto Alexandrino', then, becomes a socio-literary kaleidoscope in which science, animals, humanity, torture, punishment, law and medicine become the materials which, when reflected in the mirror-like structure, twist reality and force the reader to take a stance. Seen in terms of the history of medicine, 'Conto Alexandrino' alludes to the problematic issues of vivisection and experimentation, while from the point of view of Brazilian criminology, it addresses the notion of a supposedly superior white race and, from a literary perspective, challenges the

⁵⁰² Júlio Riberio, *A Carne* (São Paulo: Martin Claret, 1999), p. II.

zoomorphism and naturalisation of racial crime and punishment. All these pictures and patterns form part of the same structure, the anthropocentric Western vision that members of other species and ‘dominated’ or ‘weak’ races belong to a different human scale. As the psychologist Richard D. Ryder argues, ‘speciesism’ and racism are part of the same phenomena:

Racism and speciesism stand together as two similar forms of selfishness and discrimination – and together ... they stand condemned. The words ‘race’ and ‘species’ have, after all, been used interchangeably and some geneticists have questioned whether the races of mankind could not better be called species or subspecies.⁵⁰³

‘Conto Alexandrino’ ends with the narrator’s sardonic remark that the animals of Alexandria were celebrating the new turn of events. The dog ‘retorquiu melancolicamente’: “Século virá em que a mesma coisa nos aconteça” Ao que retorquiu um rato: “Mas até lá, riamos!”⁵⁰⁴ These remarks may refer to Claude Bernard’s experiments, since dogs were his favourite subjects. The rat, however, dismisses the dog’s remark, by stressing that they should laugh. The contrast between the melancholic dog and the sarcastic rat – both victims of Stroibus and Pítias – highlights the deeply tragic nature of scientific progress. Through the talking animals in ‘Conto Alexandrino’, Machado actualises ancient fables to advance a moral argument about scientific developments – as the author did previously with ‘Ideias de Canário’ and ‘A Sereníssima República’. The moral of this fable is clear: unquestioning and extreme adherence to scientific progress risks the dehumanisation of human beings. Using clinical language that allegorises both law and science, the author denounces methodological and moral flaws through tragedy and irony. Moreover, by using talking animals, the narrator goes against the animalistic nature of naturalistic descriptions. Here, instead of the human being reduced to its animal instincts, it is the animal which displays morals and emotions. Rats and dogs are, therefore, victims and, as such, they appeal to the reader’s ethics by questioning ideological choices – whether scientific or literary.

Tragedy and irony also characterise ‘O Alienista’, in which Machado de Assis is critical of supposedly progressive postulates, due to their views on how science could improve society. Given that both ‘O Alienista’ and ‘Conto Alexandrino’ end with the expression ‘Plus Ultra’ – further beyond – it is possible to make a connection between these two types of scientist. The expression ‘Plus Ultra’ is in itself an anachronism: as previously

⁵⁰³ Richard D. Ryder, *Speciesism, Painism and Happiness - A Morality for the Twenty-First Century* (Societas: Essays in Political & Cultural Criticism), Chapter 1 – Speciesism, paragraph 15. EPUB file.

⁵⁰⁴ Assis, ‘Conto Alexandrino’, p. 412.

discussed in the analysis of 'O Alienista', it was used by Carlos V (1500–1558) to symbolise his armada's daring expeditions in search of new lands.⁵⁰⁵ Here, the expression is used at the end of the short stories, when the scientists achieve their 'breakthroughs': Simão discovers that he is the only madman in Itaguaí and dies alone; and Stroibus and Pítias, after proving their theory, are tortured to death. Their obsession with the truth, in any form, is a 'plus ultra' of rationality, or fundamentalism. Their pursuit of progress at any cost becomes a fundamentalist religion in which they are their own gods and, hence, able to use humans as a means to an end – in this case, the slaughter of inmates is barely seen as a crime but as a plausible research tool. In this sense, Herófilo and his disciples are characters who go beyond humanity, who cannot feel pity or pleasure: their project resembles an embodiment of the banality of evil.

However, 'Conto Alexandrino' goes even further beyond. Its structure, plot and characters mix history, tragedy, fable, satire, science and literature, conveying multiple scenarios and meanings. Perhaps the story even wishes to go beyond its own historical time and suggest that racial hierarchies and whitening theories in a mixed-race and peripheral country are as illusionary and unbelievable as fantastic theories and talking animals.

* * *

The analysis of the short stories 'O Segredo do Bonzo' and 'Conto Alexandrino' reveals that Machado de Assis takes an exotic, strange and fantastic approach to contemporary scientific themes. Through recourse to ancient and mythical lands, the author configures a new version of the exotic: one that does not idealise or dismiss Brazilian social-historical characteristics but instead retraces Brazilian power and social struggles. Without redeeming either scientists or charlatans, the stories critique the medical classes and racial theories by indicating that they are not 'naturally' or 'biologically' motivated but, rather, constructed by social and historical attitudes and prejudices. Subtly, the stories criticise the role played by science in maintaining traditional structures of power, such as the subjugation of Afro-Brazilians and slaves, while further empowering the bourgeois capitalist ethos increasingly in ascension.

Unlike the scientists of the previous chapter, who researched individually, the 'pomadistas' and the 'anatomists' work in groups. Their scope of influence is also broader since their theories are collectively accepted either through massive operations or changes

⁵⁰⁵ Rosenthal, p. 204.

in the law. Not only is their importance endorsed by the general population; it also affects the decisions of political rulers and authorities. This authority, however, does not derive solely from their proficient use of science but also, if not primarily, from their persuasive linguistic tactics. For example, the ‘bonzos’ and ‘anatomists’ express themselves in aphorisms: ‘Para a glória do Bonzo e benefício do Mundo’ and ‘Os animais são as letras do alfabeto, o homem é a sintaxe’. An aphorism is a concise and memorable phrase used to express the essence of a doctrine, ‘especially used in dealing with subjects that were late in developing their principles or methodology’,⁵⁰⁶ and used by Hippocrates to describe diseases and cures. Aware of the aphorisms of Herodotus, Machado de Assis subverts their function and uses them as persuasive sentences that could be interpreted as self-serving beliefs to legitimise their influence and power. These simple aphorisms reflect broader social projects of racial domination and subjugation.

Alongside the aphorisms, a plethora of ancient and modern intertextual references and historical documents shape the portrayal of selfish, competitive and callous intellectuals. While the ‘men of science’ and scientists are unreasonable, the ‘irrational’ animals convey the stories’ truth. If in ‘O Segredo do Bonzo’ the famous healer seems to be pious and attractive, in ‘Conto Alexandrino’, the animals provide the moral of the story. In both cases, Machado uses the voices of unreason to express reason, in the same way that the spider ‘Erasmio’ encourages the spiders to keep on weaving their destinies and stories. Here, the narrators remind us that scientific discourses and literary methodologies – even when they present themselves as modern and progressive, banishing quacks and reforming the law – still reproduce ancient and archaic modes of action.

⁵⁰⁶ ‘Aphorism’, in *Encyclopaedia Britannica* [online] < <https://www.britannica.com/art/aphorism> > [accessed 19 February 2020].

4. SOCIAL MEDICINE: STRANGE DISEASES

In his *History of Brazil* (1810–19), a volume found in Machado de Assis's library, the English Romantic poet Robert Southey comments on the nature of colonial diseases. He argues that 'the mixture and intermixture of three different races, the European, American, and African, had produced new diseases, or at least new constitutions, by which old diseases were so modified, that the most skillful physicians were puzzled by new symptoms'.⁵⁰⁷ Southey's assertion is based on the work of the Dutch doctor Willem Piso (1611–1678), the author of *Historia Naturalis Brasiliae* (1648), one of the earliest comprehensive scientific surveys of Brazilian climate, diseases, medicine, indigenous cultures, flora and fauna. Commissioned by the Dutch Duke Johan Maurits of Nassau-Siegen, the work made an invaluable contribution to natural sciences and medicine.⁵⁰⁸ However, its genesis was connected to an imperial project of knowledge and domination, as seen in the derogatory tone used by both the doctor and the poet.

In the seventeenth century, the Dutch, represented by the Dutch West India Company, invaded and established a three-decade rule in the Northeast of Brazil (1630–54). The occupation was a direct consequence of the hostility between Spain and Holland caused by the Iberian Union (1580–1640), the dynastic alliance of the Kingdoms of Spain and Portugal which redefined the territorial borders between Portugal and Spain and reconfigured colonial areas of influence in Latin America. To secure its economic advantage in the global sugar trade, the Dutch sent Duke Maurits of Nassau, an experienced administrator, to govern Recife in 1637. Along with his troops, the Duke brought an entourage of 46 scientists, physicians and artists.⁵⁰⁹ According to Elisielly Falasqui da Silva, the scientific study of the South American natural landscape was not only part of the pioneering industry and knowledge of the Dutch but was also integral to their war strategy against Spain.⁵¹⁰ Their knowledge of the 'New World' meant that they would be empowered to fight unknown diseases and to survive – exercising their control for years to come.

⁵⁰⁷ Robert Southey, *History of Brazil* (1819) (Cambridge: Cambridge University Press, 2012), p. 5.

⁵⁰⁸ Mariana Françaço, 'Alguns comentários à *História Naturalis Brasiliae*', *Cadernos de Etnolinguística*, 2.1 (2010), 1–7, (p. 6) <<http://www.etnolinguistica.org/vol2:1>> [Accessed 05 April 2022].

⁵⁰⁹ Charles Boxer, *Os holandeses no Brasil – 1624–1654* (São Paulo: Companhia Editorial Nacional, 1961) p. 158.

⁵¹⁰ Elisielly Falasqui Silva, 'Artes de curar no Brasil holandês: a construção do conhecimento médico e dietético na relação entre Velho e Novo Mundo', *Intellèctus*, 15.1 (2016), 1–23, (p. 3) <<https://www.e-publicacoes.uerj.br/index.php/intellèctus/article/view/22265>> [Accessed 05 April 2022].

Therefore, as Silva argues, scientific writings of the Dutch were a crucial factor in their narrative of domination and conquest.⁵¹¹

Although these events may seem to bear little relevance to the work of Machado de Assis, produced more than two hundred years after Nassau's stay in Recife, it is significant that the novelist chose to portray Dutch men of science in his tales of treating and curing fantastic and unnatural diseases. The short stories 'Verba Testamentária' (*Papéis Avulsos*, 1882) and 'O Lapso' (*Histórias Sem Data*, 1884) portray Dutch doctors in the eighteenth and early nineteenth centuries, studying and treating strange and rare illnesses. While the unnamed 'brother-in-law' of 'Verba Testamentária' diligently tries to heal his relative, Nicolau, from an incurable sickness, the doctor Jeremias Halma in 'O Lapso' partially cures Tomé Gonçalves of his bizarre disorder. Nicolau suffers from fits of rage (to the point of becoming cross-eyed) every time he confronts someone in a better position than his own, while Tomé does not pay anybody for their services because he does not grasp the commercial or social meaning of 'paying'.

In addition to embodying what Todorov has called 'events [that] are incredible, singular',⁵¹² these diseases encompass something simultaneously mysterious and familiar, assuming traces of the Freudian *unheimlich*. If, for Freud, the uncanny represents a 'class of the terrifying which leads back to something long known to us, once very familiar',⁵¹³ it is possible to associate the illnesses of Machado's characters with an extreme version of selfishness in which the individuals are incapable of sustaining functional social interactions. At the same time, the doctors fail to examine these odd diseases in the light of their social and collective phenomena, which is also somewhat inexplicable given that they are described as knowledgeable and wise. This double level of strangeness, represented by the diseases and the doctors themselves, alludes to a historical revision of the social importance and collective applications of medicine. While the sicknesses are a reminder of the selfish and unequal appropriation and concentration of wealth and knowledge by the colonial authorities, the historic enlargement of the figures of the Dutch doctors brings the reader back to the nineteenth century and the rise of social medicine, the union between medicine and government to control patients and normalise urban society. In this broader view, the doctors serve a two-fold purpose: while their rationality and perseverance bring the reader back to the ground-breaking discoveries typical of the naturalists of earlier colonial times, their attempt to control the maladies, patients and even the society around

⁵¹¹ Silva, p. 3.

⁵¹² Todorov, *Fantastic*, p. 46.

⁵¹³ Freud, 'The Uncanny'.

them echoes the practices of nineteenth-century Brazilian social medicine. Since these doctors are diligent, and even naïvely obsessed with their practice, their presence does not initially disturb the reader; instead, they inspire trust and familiarity. However, as the stories progress, the doctors' methods of providing a cure suggest a growing control that extends to all elements of their patients' lives: in addition to changing their patients' behaviour and family relationships, they also restrict their social interactions and reading materials.

In this sense, from their initial presentation as a friendly presence, the doctors become omnipresent, controlling their patients' every move. This portrayal reflects the nineteenth-century philosophy of *medicina social* or *higienismo* which, according to the medical historians Roberto Machado and Jurandir Freire Costa, had the objective of organising society rather than providing traditional therapy. For Machado, *medicina social* aims to 'medicalise society'⁵¹⁴ and find cures for social maladies:

A partir do século XIX a medicina em tudo intervém e começa a não ter mais fronteiras; é a compreensão de que o perigo urbano não pode ser destruído unicamente pela promulgação de leis ou por uma ação lacunar, fragmentária, de repressão aos abusos, mas exige a criação de uma nova tecnologia de poder capaz de controlar os indivíduos e as populações tornando-os produtivos ao mesmo tempo que inofensivos.⁵¹⁵

Roberto Machado argues that Brazilian medicine acted as a regulatory force, powerful enough to police, if not control, individuals' desires and instincts and creating, therefore, a general norm of 'accepted' social behaviour. Jurandir Freire Costa adds to Machado's assertion by stating that the rise of *medicina social* or *higienismo* was connected to the failure of the post-colonial judicial system to maintain social order. In partnership with the Imperial state, medicine incorporated the city and the population into the field of medical knowledge.⁵¹⁶ New scientific concepts intermingled with old forms of submission and punishment, such as violent military repression, and reconciling medical corporative interests with the agrarian elite.⁵¹⁷ Costa furthers his argument by stressing that this new bio-social structure targeted the patriarchal family as the central agent of social change, since the 'família latifundiária foi tomada como protótipo da família colonial por ter sido a primeira a fixar as regras deste tipo de ordem interna e, em consequência, também ter dedicado o maior número de testemunhos de sua evolução'.⁵¹⁸ With the help of family

⁵¹⁴ Roberto Machado and others, *Danação da norma: a medicina social e constituição da psiquiatria no Brasil* (Rio de Janeiro: Edições Graal, 1978), p. 156.

⁵¹⁵ Machado, p. 156.

⁵¹⁶ Jurandir, p. 28.

⁵¹⁷ Costa, p. 28.

⁵¹⁸ Costa, p. 48.

structures and the apparatus of state repression, medicine infiltrated almost all walks of life and irrevocably changed habits and traditions. Importantly, it still maintained a hierarchical social order.

In light of the dichotomy of traditional structures and the new state biopolitical apparatus – represented by diseases, the Dutch doctors’ methods and their relationships with important families – this chapter will examine how the short stories ‘Verba Testamentária’ and ‘O Lapso’ play with the notion of social medicine. Deploying a ‘carioca’ version of the *unheimlich* and *fantastic*, Machado de Assis simultaneously distances the doctors from his readers and brings them closer, alternating between terror and humour in a manner associated by the literary critic Barreto Filho with the ‘malandro carioca’, an anecdotal sense of humour. He argues that Machado’s sources are the ‘pilhéria, a maledicência, a anedota carioca, essa coisa quase indefinível que já se cristalizara no espírito da capital, uma espécie de gracejo, menos pesado que a farsa, menos inteligente que a ironia, menos grosseiro que a facécia’.⁵¹⁹ The narrator adopts Brazilian popular ‘banter’, in which irony becomes a series of teasing remarks, inserted sporadically amid a supposedly truthful narrative. The device destabilises the importance of both doctors and diseases, creating a strange familiarity that neither represents reality nor endorses the view of medicine as a powerful and omnipresent mode of social control. In these two stories, the doctors are comical, anachronistic and equally lost in traditional and modern Brazilian society.

VERBA TESTAMENTÁRIA: THE ENVIOUS WORM

The short story ‘Verba Testamentária’, published in the periodical *Gazeta de Notícias* in 1882 and included in the collection *Papéis Avulsos* (1892), tells the story of the son of an important merchant, Nicolau B. de C., who suffers from chronic but incurable outbursts of anger at the sight of wealthy people or riches. Interestingly, two versions of the story exist: one published in the periodical, bearing the subtitle ‘caso pathologico dedicado a Universidade de Medicina’,⁵²⁰ and one published in the book, which omits the subtitle and starts with the testamentary note from the title. While it is not the aim of this analysis to examine the differences and similarities between the two publications – which are minor

⁵¹⁹ Barreto Filho, ‘O Romance Brasileiro: Machado de Assis’, *Machado Assis linha*, 5.9 (2012), 1–23 (p. 1) <<https://www.scielo.br/j/mael/a/vJ6y3Zntnw7NfGcF7Hwc9gH/?lang=pt>> [Accessed 22 Jan 2021].

⁵²⁰ *Gazeta de Notícias*, Rio de Janeiro: Typographia da Gazeta de Notícias, 8 October 1882, Biblioteca Nacional: http://memoria.bn.br/DocReader/docreader.aspx?bib=103730_02&pasta=ano%201888&pesq=Machado%20de%20Assis&pagfis=4344 [Accessed 22 Jan 2021].

except for the subtitle⁵²¹ – it is important to highlight that, from the very start, the narrator frames the story in medical and scientific terms, although the type of medicine and the precise methodological perspective taken by the narrator remain unclear.

The beginning of the story rehearses an answer: the first paragraph focuses on the ‘verba testamentária’, the testamentary disposition, indicating a desire by the dead to control their post-mortem future. In the disposition, the nobleman Nicolau B. de C. requests that his coffin be made by the humble and slapdash carpenter Joaquim Soares. The omniscient narrator, adducing a biological relationship of cause and effect – and slightly deferring the beginning of the action – states that, although modest, this demand has a more specific cause, that of Nicolau’s sickness, described hyperbolically as ‘uma das maiores curiosidades mórbidas deste século’.⁵²² In the second paragraph, addressing the reader as ‘leitor amado’, thus creating a friendly yet ironic relationship, the narrator continues by stressing that they are about to enter ‘plena patologia’.⁵²³ The scientific terminology continues as the narrator employs specialised vocabulary related to biology and medicine, suggesting that Nicolau has obsessive and compulsive traits: Nicolau ‘não é um organismo perfeito. Ao contrário, desde os mais tenros anos, manifestou por atos reiterados que há nele algum vício interior, alguma falha orgânica’.⁵²⁴ However, after this use of biological terms, the narrator abruptly waxes vague in the next sentence, transforming medical terms into an anecdote about Nicolau’s childhood: ‘Não se pode explicar de outro modo a obstinação com que ele corre a destruir os brinquedos dos outros meninos, não digo os que são iguais aos dele, ou ainda inferiores, mas os que são melhores ou mais ricos’.⁵²⁵ Setting the tone for the bizarre story, the narrator alternates between medical terms and popular tales (‘pilhéria’, ‘anedota carioca’), which point to a possible duality of language used in ‘Verba Testamentária’. Medicine, thus, becomes a hesitating and ambivalent science which, caught between the precision of scientific terms and the arbitrariness of disease, tries to formulate a social explanation and treatment for Nicolau’s troubles. The two representatives of this hesitating and ambivalent medicine are the narrator and the patient’s doctor, the unnamed brother-in-law. This analysis will examine the dual narrative voice and focus on how medical terms collide with popular and anecdotal language to bring to life the socio-political

⁵²¹ For an analysis of the differences between the two versions see: Fabiana da Costa Ferraz Patueli, ‘Análise do Código Bibliográfico nas Edições do Conto “Verba testamentária” no Século XIX’ <http://www.filologia.org.br/xv_cnlf/tex_completos/analise_do_codigo_bibliografico_nas_FABIANA.pdf> [accessed 22 Jan 2021].

⁵²² Assis, ‘Verba’, p. 352.

⁵²³ Assis, ‘Verba’, p. 352.

⁵²⁴ Assis, ‘Verba’, p. 352.

⁵²⁵ Assis, ‘Verba’, p. 352.

setting of the early nineteenth century in Brazil, a period in which social medicine rose in importance and popularity. The lightly ironical and jesting tone of the narrator has the function of contradicting medical terms and complicating reality rather than giving immediate answers.

Although relatively well-known, 'Verba Testamentária' has been little explored by literary critics. One of the most thorough analyses is by John Gledson, who examined it in relation to 'O Espelho', a story in which the ensign Jacobina, while staring at a 'mystic' mirror, concludes that he has two souls: an interior one – amorphous and shady – and an exterior one which captures his title and identity. Despite differences in theme and tone, Gledson argues that both pieces address the problematic notion of Brazilian identity: an 'imitative' colony whose social and political structure flourishes with the arrival of the Portuguese Royal Court in 1808. Gledson goes on to argue that both characters have a 'problem with models',⁵²⁶ stemming from the perception that Brazil is a derivative society that copies Portuguese and European political, social and cultural systems. While Jacobina 'protects' himself with the comforts of a military title, Nicolau rejects external models 'with semi-conscious impulses to be independent and original. He is only able to continue living by seeking out the company of those who are manifestly his inferiors'.⁵²⁷ The failure to overcome his sickness – as well as the solace that he finds in the company of less privileged people – constitutes, for Gledson, an allegory 'of the early years of [Brazilian] independence',⁵²⁸ a period that failed to duplicate European models and to achieve political stability. The English critic concludes that 'Verba Testamentária' concerns the translation of an exterior political instability into individual and interior sensibility. The allusions to medicine and the Dutch doctor are, in his reading, merely elements of a humorous conceit, which 'for some reason, Machado associates with the Dutch'.⁵²⁹

On the one hand, Gledson is correct in affirming that the narrative reflects Brazilian history, since the dates that describe Nicolau's life, education, work and personal choices are precisely related to key moments in the transition from a colonial to an imperial form of government: 1787, 1808, 1823, 1831, 1840 and 1855. Medicine, however, also plays an essential role in the choice of these dates, which coincide with a paradigmatic shift in Brazil's social and family structure, motivated by hygienist interventions and practices. According to Roberto Machado, nineteenth-century politics were buttressed by the disciplinary,

⁵²⁶ Gledson, 'History in Machado de Assis's *Papéis Avulsos*', p. 114.

⁵²⁷ Gledson, 'History in Machado', p. 114.

⁵²⁸ Gledson, 'Brazilian History in Machado', p. 115.

⁵²⁹ Gledson, 'Brazilian History in Machado', p. 115.

normative and influential power of the newly formed schools of medicine. In other words, social medicine, under the influence of these schools, was neither independent nor free to conduct scientific research. It was, instead, part and parcel of politics:

A medicina social, com seu novo tipo de racionalidade, é parte integrante de um novo tipo de Estado. Novos tempos, novo tipo de relação. Quando o Estado se propõe a assumir a organização positiva dos habitantes produzindo suas condições de vida, quando estabelece a possibilidade de um controle político individual ou coletivo que exerça de forma contínua a medicina nele está presente como condição de possibilidade de uma normatização da sociedade no que diz respeito à saúde, que não é uma questão isolada, um aspecto restrito, mas implica em uma consideração global do social.⁵³⁰

The quotation is consistent with Michel Foucault's concept of norms and normalisation, which, since the nineteenth century:

... has been characterised, on the one hand, by a legislation, a discourse, an organisation based on public right, whose principle of articulation is the social body and the delegative status of each citizen; and, on the other hand, by a closely linked grid of disciplinary coercions whose purpose is in fact to assure the cohesion of this same social body.⁵³¹

Foucault's definition emphasises the role of the law and disciplinary power in the normalisation of the individual and the social body. Jurandir Freire Costa extends the French historian's conceptualisation to nineteenth-century Brazil and argues that social medicine was an agent of *intervenção normativa*, affecting first the physical and intellectual education of bourgeois families and, second, the hygienic and moral habits of poor populations:

Essas intervenções demográficas junto aos ricos e demográfico-policiais sobre os pobres permitiram a proliferação e a liberação de uma mão-de-obra politicamente dócil para o livre jogo do mercado de trabalho. A ação médico-filantrópico-assistencial conduzia a vida social sem desrespeitar o pacto social.⁵³²

By instructing families on 'proper' educational, marital and behavioural practices, medicine proposed normative measures to organise Brazilian society.⁵³³ More importantly, it created 'docile' and 'disciplined' individuals, presumably aware of their social and political roles.

⁵³⁰ Machado et al., p. 157.

⁵³¹ Michel Foucault, 'Two Lectures' in *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*, trans. by Colin Gordon, Leo Marshall, John Mepham and Kate Soper (New York: Pantheon Books, 1972) p. 106.

⁵³² Costa J. F. C., p. 52.

⁵³³ Costa J. F. C., p. 30.

Given the central position held by medicine in nineteenth-century Brazil, it is unlikely that the Dutch doctor's function is solely that of comic relief, as Gledson sees it. As previously noted in the introduction, and as historian of science Nancy Stepan argues, 'Portuguese efforts in science in the seventeenth century cannot compare, for instance, with those of the Dutch in Brazil.'⁵³⁴ Even though Portuguese explorers and Jesuits had been producing work on indigenous medicine, flora and fauna since the 16th century, the effort of the Dutch was invaluable: the Duke Johan Maurits of Nassau brought to the new world a number of scientists, Brazil's first observatory and bridge⁵³⁵, and sponsored the discoveries by Willem Piso and Georg Markgraf who investigated tropical medicine, natural history and cartography. 'Piso published their joint investigations as *Historia Naturalis Brasiliae* (1648). Piso [also] contributed four books on medicine, which established him as an authority on tropical medicine. Markgraf posthumously contributed eight books on natural history, creating his reputation as the most important early modern natural historian of Brazil'.⁵³⁶ The centrality of the Dutch in the exploration of Brazilian flora and fauna, allied to the rise of nineteenth century scientific discourses, which were changing habits and traditions, can lead us to a hypothesis. This ubiquitous 'invasion' of medicine in domestic life can be related to early colonial discoveries which, in the story, are symbolically and anachronistically associated with the Dutch and their attempts to study and catalogue Brazil. Nicolau's brother-in-law, the doctor who married his sister in 1809, acts as a fundamental catalyst of events: not only does he encourage Nicolau to become involved with diplomacy and politics, but also to marry. The unnamed doctor goes so far as to find Nicolau the 'perfect' bride and, still further, buys them a farmhouse where he creates an artificial environment in which Nicolau's disease manifests itself in a less disruptive form. In other words, the physician controls his patient's every move. The fact that he is Dutch is an echo of early colonial times and their long-standing structures of patriarchy, authoritarianism and favouritism. The humour that Gledson identifies in the doctor is, perhaps, not located in the doctor himself, but in the narrator, who employs, as noted, a hybrid language, punctuated both by scientific terms and anecdotal colloquialisms. Additionally, humour is present in the later comedy of errors in which Nicolau and the physician attempt to outwit one another. While Nicolau strives to escape his treatment, finding new ways to consort with 'inferior' people, the doctor aims to cure him by manipulating still further his patient's environment.

⁵³⁴ Stepan, p. 21.

⁵³⁵ Stepan, p. 21.

⁵³⁶ Robert Morrison's '*Planetarium Historia Universalis Oxoniensis: A Seventeenth Botanical Treasure* <<https://www.cabinet.ox.ac.uk/willem-piso-and-georg-marggrafs-historia-naturalis-brasiliae-1648>> [accessed 20 March 2023] (paragraph 2 of 5).

To supplement Gledson's analysis, this reading builds on the critic's allegorically informed idea that "Verba Testamentária" can be interpreted most convincingly as the story of the appearance ... of a national consciousness, not merely in the ambit of political events, but also in terms of the intellectual and literary history of the nation.⁵³⁷ The assertion can be expanded with the notion that political events and intellectual history were both predicated on the advancement of medico-scientific studies and policies of the period, which gained credibility in public life. A close reading of the story demonstrates that the dates previously mentioned represent changes in medical thinking in Brazil in the nineteenth century. Simultaneously, the language – which will be further analysed – contributes to a sceptical tone, questioning medicine and exposing its failure to address diseases that do not stem from 'organic failures' but from society itself.

The beginning of the story recounts Nicolau's childhood, which is permeated by competition and violence. When he sees children in possession of better toys than his own, Nicolau kicks them repetitively and mercilessly. The narrator stresses that 'culpa do pai não pode ser', introducing notions of blame and guilt even as he appears to negate them, and immediately turns to the father:

O pai era um honrado negociante ou comissário (a maior parte das pessoas a que aqui se dá o nome de comerciantes, dizia o marquês de Lavradio, nada mais são que uns simples comissários), que viveu com certo luzimento, no último quartel do século, homem ríspido, austero, que admoestava o filho, e, sendo necessário, castigava-o. Mas nem admoestações, nem castigos, valiam nada.⁵³⁸

The excerpt describes Nicolau's father's profession as a 'comissário' ('financial commissary'), a polysemic term which, according to the philosopher Caio Prado Júnior, is equivalent to a 'consignatário ou agente comercial, agindo sempre por conta e em nome alheios'.⁵³⁹ The economist Roberto Pedrosa argues that 'comissários' had a central role in financing coffee plantations since they mediated the acquisition and sale of products and acted as the financiers of the great plantation owners.⁵⁴⁰ Alongside the description of the father's profession, the narrator reinforces the view that 'comissários' are merely demotic middlemen, by quoting the Marquês de Lavradio, who alludes to their pretentiousness. The mention of Lavradio also broadens the scientific allusions of the story and can be read as a reference to the pairing of state and public health. According to the historian Vinicius

⁵³⁷ Gledson, 'Brazilian History in Machado', p. 122.

⁵³⁸ Assis, 'Verba', p. 352.

⁵³⁹ Caio Prado Júnior, *Formação do Brasil contemporâneo* (São Paulo: Companhia das Letras, 2014).

⁵⁴⁰ Roberto Pedrosa, 'Comércio e Financiamento na Lavoura de Café de São Paulo no início do século', *Revista Administração de Empresas* 20.1 (1980), 63–78.

Cranek Gagliardo, Lavradio was the Viceroy of Rio de Janeiro between 1769 and 1779 – in the last quarter of the century, as noted by the narrator. He was influenced by eighteenth-century scientific ideas which identified Brazil and other tropical countries as unhealthy and disease-prone due to their natural environment, tropical climate and social conditions – particularly those related to poor housing and the slave economy. Therefore, Lavradio took measures to improve the city's hygiene, organising the trafficking of slaves who arrived in Brazilian ports – preventing them from being displayed in the streets – and arranging public waste collections.⁵⁴¹ Although shocking in contemporary terms, for Gagliardo these were the first attempts at a form of social medicine that partially intervened in the city's natural and social landscape, taming its population growth and normalising social practices. As Costa argues, under Lavradio's rule, public security became militarised and violent.⁵⁴² The allusions to a mediocre profession, associating Nicolau's father with an aspiring petit bourgeoisie and a repressive government, introduce the theme of early social medicine, characterised by inequality and oppression. The repressive state is mirrored in the authoritarianism of Nicolau's father, who does not hesitate to punish Nicolau physically when his behaviour diverges from the new 'hygienic' and 'civilised' norms of bourgeois society.

The father's constant reprimands only aggravate Nicolau's illness and his father's violence reaches its culminating point in his attempt to donate funds to the government for the construction of a new dock. In return, he acquires the title of captain – a common practice in colonial cultures. However, a competitor makes a larger donation and obtains a military title for his seven-year-old son as well. The family becomes aware of the decision on a Sunday morning when they are walking to church. Nicolau cannot bear the sight of his peer dressed as a young ensign and proceeds to rip his clothes apart and scratch his face, as a result of which he is severely punished and isolated. Implicitly, however, Nicolau's aggression towards the other child reflects not only his father's desire for a better social position but also widespread commercial and colonial disputes of power. The episode subtly reveals that the child's 'falha orgânica' lies not within himself but is part of a broader competitive structure that he had psychologically absorbed at an early age.

The historian Eliane da Conceição Silva also associates Nicolau's illness with Brazilian socio-historical structures. Using the concept of 'habitus' developed by the French

⁵⁴¹ Vinicius Cranek Gagliardo, 'Condições de saúde no Brasil Colônia: Primórdios da Higiene Pública como Política Governamental no Rio de Janeiro dos Vice-Reis', *Brasiliانا – Journal For Brazilian Studies*, 2.2 (2013), 450–476 (p. 466).

⁵⁴² Costa, J. F., p. 23.

sociologist Pierre Bourdieu to describe a set of social dispositions that influence individuals to behave in certain ways,⁵⁴³ she contends that a ‘sedimented law’ acts in Nicolau’s formative years. For her, this sedimented law is the ‘pathological obsession’ – as noted – of Nicolau’s father and his competitor, which compels them to search for ‘falsas honrarias’ that would grant them a sense of social superiority. Silva perceptively observes the same fixation in Bras Cubas’s father, who invented an artificial noble genealogy to disguise his common birth.⁵⁴⁴ Since the disease is not an autonomous entity but part of society or, in Bourdieu’s terms, a medium that reconciles exterior and interior reality, Nicolau shows no signs of improvement, despite being beaten and locked up for four months.

Changing his control tactics, but not their violent premise, the father decides to send Nicolau to school. The teacher, with equally assertive educational methods, tries to discipline him with the help of a ‘palmatória’, a wooden stick used to strike children’s hands as a punishment for misbehaviour. However, all efforts to contain his rages simply result in additional problems:

Ao contrário, obrigado a conter-se, a engolir o impulso, padecia dobrado, fazia-se mais lívido, com reflexo de verde bronze; em certos casos, era compelido a voltar os olhos ou fechá-los, para não arrebentar’.⁵⁴⁵

The additional symptoms are caused by the repression of his inner impulses, as if the repressed simply returned more severely, like the Freudian *unheimlich*. The new symptoms, such as turning green and having crossed eyes, start to become permanent and fracture Nicolau’s personality. When Nicolau is not violent towards others, he directs his anger at himself, to the point where he literally cannot see. The lack of vision is metaphorical but, in a historical sense, related to the social problems provoked by a highly competitive capitalist society, where ‘prizes’ are not awarded according to merit or value, but are arbitrary or, more commonly, linked to connections. Nicolau’s academic years, therefore, are filled with destructive competition:

não perdoou aos que se mostravam mais adiantados no estudo; espancava-os, tirava-lhes os livros, e lançava-os fora, nas praias ou no mangue. Rixas, sangue, ódios, tais eram os frutos da vida, para ele, além das dores cruéis que padecia, e que a família teimava em não entender. Se acrescentarmos que ele não pôde estudar nada seguidamente, mas a trancos, e mal, como os vagabundos comem, nada fixo, nada

⁵⁴³ Pierre Bourdieu, *Sociologia* (São Paulo: Ática, 1983), p. 65.

⁵⁴⁴ Eliane da Conceição Silva, *Estudos da Violência: uma análise sociológica dos contos de Machado de Assis* (unpublished master’s dissertation, UNESP, São Paulo, 2008) p. 142.

⁵⁴⁵ Assis, ‘Verba’, p. 354.

metódico, teremos visto algumas das dolorosas consequências do fato mórbido, oculto e desconhecido.

Although the passage reinforces the vicious nature of Nicolau's outbursts, the narrator's language cunningly plays a game of visibility and invisibility, reflecting the blindness caused by Nicolau's rages. While the narrator refers to mysterious, occult and unknown 'fatos' for the child's violence, at the same time he systematically signals its social causes: disputes, hatreds, pains and social conflicts. This polysemic passage, though, does not dismiss the psychological trauma of Nicolau the child, who genuinely struggles but also shows the deleterious effects of repressing social problems. The combination of assault and grief results in the realisation of his father's worst fears: Nicolau does not attend university and, therefore, obtains neither a degree nor the distinction he wished for his family name.

With the deaths of his father and mother in 1807 and 1808, respectively, Nicolau inherits their possessions and becomes a 'petimetre' (dandy) with attendant slaves and servants at his disposal. During the same period, his sister marries an unnamed Dutch doctor. The marriage coincides with the arrival of the Royal Court which, according to Roberto Machado, brings a new set of social, institutional and medical configurations: 'o poder central, ao instalar-se, atribui a si próprio determinadas funções: garantir o enriquecimento, a defesa da saúde do "povo" da nova terra'.⁵⁴⁶ As Freire Costa remarks, the royal government imposed measures that had a direct impact on the livelihoods of patriarchal families such as Nicolau's. Houses and land were distributed to the nobles and functionaries who accompanied the king in the so-called 'lei das aposentadorias' (stipendiaries given to new settlers), and buildings were altered to eliminate the Arabian-Portuguese 'rótulas' and 'gelosias' (Portuguese-style shutters that covered windows to prevent excess sunlight), which were considered backward and unhygienic.⁵⁴⁷ These measures are but two examples of how coercive judicial and legislative apparatuses forced wealthier – and, consequently, later impoverished – families into an unwilling subordinate position. As Costa argues:

O governo do príncipe não se preocupou em legitimar as suas ações políticas. O caráter autocrático do Sistema impediu a partilha e a distribuição do poder. A transformação do espaço urbano procurava atender exclusivamente, ao bem-estar e ao enriquecimento da aristocracia portuguesa e do capitalismo europeu.⁵⁴⁸

⁵⁴⁶ Machado et al., p. 159.

⁵⁴⁷ Costa, J. F., p. 54.

⁵⁴⁸ Costa, J. F., p. 55.

The Royal Court wished to maintain its commercial trade with Europe and its aura of sophistication and modernity. Accordingly, it altered the very landscape of the city, which was beset by sewage, waste and inadequate lighting.⁵⁴⁹ With the uncontrolled expansion of the capital and a rise in population that contributed to the epidemic spread of diseases, the Prince Regent recognised the need for medical doctors. To legitimise the study of medicine in the Empire, he inaugurated the Schools of Medicine and Surgeries in Bahia and Rio de Janeiro. However, as discussed in the analysis of ‘O Segredo do Bonzo’, licensed and unlicensed apothecaries and faith healers had served the medical needs of the population for more than three hundred years.⁵⁵⁰ In this socio-political context, in which residual and emerging forms of treatment and healing collided, the figure of the doctor was elevated and legitimised by the state. The upshot was a judicial–medical alliance in which representatives of the state and public health officials would determine not only laws and forms of punishment, but also the education of children and public morality, most notably by instituting measures to curb their passions.⁵⁵¹

The historical backdrop of Brazil is important to the reading of Machado’s story since the union between Nicolau’s sister and a physician represents a new medical approach to treating Nicolau’s ‘disease’, which bears traces of the uncivilised and savage. The narrator recounts that Nicolau has no friends of the same social status, is unable to control his anger in the presence of others and fiercely attacks his slaves and pets alike. Once more, the two sides of Nicolau are seen:

Nicolau ficava então ríspido; em casa achava tudo mau, tudo incômodo, tudo nauseabundo; feria a cabeça aos escravos com os pratos, que iam partir-se também, e perseguia os cães, a pontapés; não sossegava dez minutos, não comia, ou comia mal. Enfim dormia; e ainda bem que dormia. O sono reparava tudo. Acordava lhano e meigo, alma de patriarca, beijando os cães entre as orelhas, deixando-se lambar por eles, dando-lhes do melhor que tinha, chamando aos escravos as coisas mais familiares e ternas. E tudo, cães e escravos, esqueciam as pancadas da véspera, e acudiam as vozes dele obedientes, namorados, como se este fosse o verdadeiro senhor, e não o outro.⁵⁵²

As Silva argues, the passage represents Machado’s subtle criticism of the medical theses of the period, which were ‘preocupadas em disciplinar os indivíduos da elite sem questionar a violência com que subjulgavam os indivíduos das outras classes sociais, tidos

⁵⁴⁹ José Gonçalves Gondra, *Artes de Civilizar: Medicina, Higiene e Educação Escolar na Corte Imperial* (Rio de Janeiro: Editora da Universidade do Estado do Rio de Janeiro, 2004).

⁵⁵⁰ Stepan, p. 24.

⁵⁵¹ Machado et al., pp. 195–197.

⁵⁵² Assis, ‘Verba’, p. 354.

como biologicamente inferiores, reiterando sempre os privilégios de classe, raça e gênero'.⁵⁵³ While reflecting the economic and historical attitudes of the medical discourse, the narrator also establishes a connection between Nicolau's father – the first 'patriarca' – and Nicolau himself, who inherits his father's violence and brutally punishes his inferiors, taking his anger out on his subordinates, since he does not have a son. The theme of the patriarch also draws attention to an emerging figure who will assume patriarchal authority: the doctor. Substituting care and attention for violence, the doctor tries to understand his brother-in-law's disease and cure him. In this sense, he acts as Nicolau's father once did, observing and trying to 'correct' or 'normalise' Nicolau's behaviour. His presence promotes the attributes of the 'médico da família', a triumph of the hygienist movement. Costa argues that the 'figura carionhosa e firme, doce e tirânica'⁵⁵⁴ of the doctor filled the roles of both father and confessor-priest, conveying unity in the family structure. As the sociologist Gilberto Freyre argues, aristocratic women were also key in the legitimation of the family doctor. Partially liberated from the oppression of their fathers and husbands, they found a reliable and reassuring source of comfort in the family physician.⁵⁵⁵

The female presence is an essential aspect of the story, since the first recommendation from Nicolau's brother-in-law comes via his wife, who suggests that he finds a job in diplomacy. Following her husband's wishes, Nicolau's sister tells him that a 'change of climate' would be beneficial. The hygienists' philosophical and methodological approaches permeate the sister's language, specifically with reference to climate: it was in the late eighteenth century that the modern notion of a 'healthy' environment conducive to well-being emerged.⁵⁵⁶ The idea was further embedded within the social medicine of the early nineteenth century with the institutionalisation of hospitals, cemeteries, schools, barracks, prisons, bordellos and factories.⁵⁵⁷ Moreover, the idea of work – and particularly, of 'diplomacy' – suggests a proto-homeopathic approach to Nicolau's sickness. If diplomacy can be defined as a 'method of influencing the decisions and behaviour of foreign governments and peoples through dialogue, negotiation and other measures short of war or violence',⁵⁵⁸ it is possible to interpret the doctor's intentions as a hope that Nicolau would learn how to control his anger through the relatively less fatal means of tactful discussions.

⁵⁵³ Silva, p. 144.

⁵⁵⁴ Costa, J.F., p. 77.

⁵⁵⁵ Gilberto Freyre, *Sobrados e Mucambos: Introdução a História da Sociedade Patriarcal no Brasil Decadência do Patriarcado Rural e Desenvolvimento Urbano*. Volume 2. (Rio de Janeiro: Livraria José Olympio, 1977), pp. 120, 121.

⁵⁵⁶ Cranek Gagliardo, p. 463.

⁵⁵⁷ Machado et al., pp. 282–352.

⁵⁵⁸ Sally Marks and Chas. W. Freeman, 'Diplomacy' in *Encyclopedia Britannica*, 14 December 2020 <<https://www.britannica.com/topic/diplomacy>> [Accessed 8 February 2021].

It is also relevant that his suggestion contains the concept of the homeopathic cure, an alternative form of medicine developed by Samuel Hahnemann (1755–1843) that gained prominence within Brazilian elites in the second half of the nineteenth century as a humane and natural form of medicine.⁵⁵⁹ After studying the effects of quinine on malaria patients, Hahnemann concluded that ‘likes are cured by likes’ (‘similia similibus curantur’).⁵⁶⁰ Following this logic, when exposed to small doses of his ‘poison’ (people of higher class and status), Nicolau would be cured. Such was the popularity of homeopathy that Machado cites it in *Dom Casmurro* (1899). Bento Santiago’s father figure, João Dias, pretending to be a homeopathic doctor, cures a slave and a worker from the family’s household. In return, he is given accommodation and shelter as a personal doctor. However, feeling guilty, José Dias confesses he was simply a charlatan guided by the ‘truth’ of the homeopathic theses: ‘eu era um charlatão ... Não negue; os motivos do meu procedimento podiam ser e eram dignos; a homeopatia é a verdade, e, para servir à verdade, menti; mas é tempo de restabelecer tudo’.⁵⁶¹ The idea of redeploying the poison or the cause of illness is also akin to the basis of inoculation and vaccines, which started to be widely used in Brazil in the same period to reduce contagious diseases among the slave and working populations.⁵⁶² Independent of the methodological aspect of the brother-in-law’s recommendation, it is highly probable that the narrator was channelling various medical approaches to demonstrate the importance and power of the discipline. In this sense, it is not a ‘ridiculous’⁵⁶³ suggestion, as Gledson sees it, but an informed recommendation.

Although Nicolau tries to advance in diplomacy, he cannot bear the level of authority exacted by the ministry of foreign affairs that he decides that he does not want to be anything: ‘não quero ser nada’. He then returns to his former life, socialising with morally and financially inferior friends – a ‘natural’ antidote to his disease. The narrator, swapping scientific for Romantic language, elevates Nicolau’s friends to the level of dearly beloved family:

... não só eles lhe poupavam a natural irritabilidade, como porfiavam em tornar-lhe a vida, senão deliciosa, tranquila; e para isso, diziam-lhe as maiores finezas do mundo, em atitudes cativas, ou com uma certa familiaridade inferior. Nicolau amava em geral as naturezas subalternas, como os doentes amam a droga que lhes restitui a

⁵⁵⁹ Karla Mota & Suzana Lopes de Albuquerque, ‘A ciência na Sciencia: homeopatia versus alopatia no periódico brasileiro oitocentista (1847 – 1848)’, *Tecnia*, 3.2 (2018), pp. 68–88.

⁵⁶⁰ Mota & Lopes de Albuquerque, p. 70.

⁵⁶¹ Machado de Assis, *Dom Casmurro* (1899) (São Paulo: Martin Claret, 2013) p. 27.

⁵⁶² Sidney Chalhou, *Cidade Febril: Cortiços e Epidemias na Corte Imperial* (São Paulo: Companhia das Letras, 1996), p. 107.

⁵⁶³ Gledson, ‘Brazilian History in Machado’, p. 117.

saúde; acariciava-as paternalmente, dava-lhes o louvor abundante e cordial, emprestava-lhes dinheiro, distribuía-lhes mimos, abria-lhes a alma...⁵⁶⁴

The description is humorous because it satirises the Romantic prose of the nineteenth century: instead of idealising a female lover, Nicolau is ironically besotted with his subaltern friends. It also serves as a reminder that he was successful in his attempt to break free from his doctor's recommendations: he is temporarily curing himself with what does not trigger his rage – his social opposites.

With the political shift brought by Brazil's independence from Portugal in 1822, Nicolau finds a post as a member of Parliament in a plot development that adds another jest since it suggests that few politicians would cause him distress. However, there are a few who do and, to tolerate their speeches, he turns to nationalism, his latest source of comfort. If Nicolau, as we have seen, 'amava em geral as naturezas subalternas', because looking after 'subltern natures' in a paternalistic way makes him feel grand and superior, on a macro-nationalistic level, looking after Brazil is a way to for him to also feel superior, which is in itself a critical comment on nationalistic parliamentarians. The plotline continuously teeters on the verge of the fantastic, provoking hesitation and doubt. In historical terms, the 1820s and 1830s also brought changes to medical arrangements in Brazil. According to Nancy Stepan, the colonial 'físico-mor' and 'cirurgião-mor' ('chief doctor or surgeon'), who would previously send delegates to the provinces to oversee public health, were replaced by committees on public hygiene to examine and regulate sanitary standards, primarily in Rio de Janeiro.

The political scenario, combined with regulatory sanitary standards, empowers the figure of the doctor, as symbolically represented in the plot by an indirect quotation of Nicolau's brother-in-law, who diagnoses Nicolau's illness thus: 'um verme do baço, que se nutria da dor do paciente, isto é, de uma secreção especial, produzida pela vista de alguns fatos, situações ou pessoas'.⁵⁶⁵ The attribution of the malady to a problem with the spleen suggests that the doctor is researching Nicolau's symptoms of turning green and blind in the midst of his rage attacks. In ancient times, Hippocrates (460–377 BC) and his disciples developed the theory of the humours, which ascribed to the spleen the function of controlling melancholy through the production of 'black bile'.⁵⁶⁶ Therefore, Nicolau's problem is related to an imbalance in the spleen, which causes his green colour during his

⁵⁶⁴ Assis, 'Verba', p. 355.

⁵⁶⁵ Assis, 'Verba', p. 356.

⁵⁶⁶ Michele Augusto Riva et al., 'From sadness to stiffness: the spleen's progress', *Internal and Emergency Medicine* 14.5 (2019), 739–743. <doi:10.1007/s11739-019-02115-2>

attacks of rage. However, there is an additional element to his diagnosis – a worm that feeds off the spleen’s substance. In the nineteenth century, Louis Pasteur (1822–1895) investigated the role of microorganisms in the fermentation of wines and beer. He was also responsible for pioneering studies on silkworms, furthering investigations into infectious diseases in animals and humans.⁵⁶⁷ The narrator appears to draw unsystematically on elements from various medical discourses to characterise the Dutch doctor, who adopts disparate methodologies but otherwise acts in an orderly fashion. However, since the physician cannot treat the disease with a specific medication, his solution is ‘obstar à secreção, cuja ausência daria igual resultado’. It was necessary, then to ‘casar o Nicolau, com alguma moça bonita e prendada, separá-lo do povoado, metê-lo em alguma fazenda’.⁵⁶⁸ The story’s language oscillates from the scientific to a parody of Romanticism, highlighting the supposedly ‘eureka’ moment of discovery and enlightenment. However, the doctor’s cure then changes once again to the prosaic, with a focus on family and household issues. A suitable marriage combined with a healthy residence, far from the ‘insalubrious’ city, were hygienic recommendations which, according to Costa, represented rigid regulations for spousal choice and architectural structures.⁵⁶⁹ In this sense, the plot symbolically exposes the new importance of the family doctor. However, the tone of the narrator suggests that the doctor’s knowledge is not enough to cure Nicolau.

Directly quoting the physician, the narrator details the treatment:

– Todas as manhãs, continuou ele, receberá o Nicolau um jornal que vou mandar imprimir com o único fim de lhe dizer as coisas mais agradáveis do mundo, e dizê-las nominalmente, recordando os seus modestos, mas profícuos trabalhos da Constituinte, e atribuindo-lhe muitas aventuras namoradas, agudezas de espírito, rasgos de coragem. Já falei ao almirante holandês para consentir que, de quando em quando, vá ter com Nicolau algum dos nossos oficiais dizer-lhe que não podia voltar para a Haia sem a honra de contemplar um cidadão tão eminente e simpático, em quem se reúnem qualidades raras, e, de ordinário, dispersas. Você, se puder alcançar de alguma modista, a Gudin, por exemplo, que ponha o nome de Nicolau em um chapéu ou mantelete, ajudará muito a cura de seu mano. Cartas amorosas anônimas, enviadas pelo correio, são um recurso eficaz... Mas comecemos pelo princípio, que é casá-lo.⁵⁷⁰

The cure involves a complete change of environment: Nicolau would be placed in an artificial domestic bubble where no external factors, such as news or friends, would be able

⁵⁶⁷ Agnes Ullmann, ‘Louis Pasteur’ in *Encyclopedia Britannica*, 15 January 2021, <https://www.britannica.com/biography/Louis-Pasteur> [Accessed 10 February 2021].

⁵⁶⁸ Assis, ‘Verba’, p. 356.

⁵⁶⁹ Costa, pp. 110, 112.

⁵⁷⁰ Assis, ‘Verba’, p. 356.

to trigger his attacks. This modern treatment represents a fundamental change from the regime of patriarchal family violence as the physician opts for measures guided by science, based on observation and control. Historically, the gradual methodological shift is related to the national educational reforms that culminated in the Ato Adicional of 1834, in which provinces became responsible for regulating schools. According to Costa, the provinces are the space where the *médicos higienistas* started to put into practice their national project, abolishing brutal family practices such as corporal punishment and regulating the young by cultivating habits such as exercise, reading and a non-violent humanistic pedagogy.⁵⁷¹ Nicolau becomes the physician's project of a vigorous, strong man who would live a tranquil life and have healthy children. Even the choice of wife being responsible for the transformation of her husband's life is guided by medical practice. She is described as 'a mais esbelta, ou uma das mais esbeltas da capital'. According to Costa, foreign travellers deemed Brazilian matriarchs to be 'inertes e preguiçosas'⁵⁷² due to their large build and lack of exercise. They would administer the house passively from their seats. Here, the adjective 'esbelta' implicitly contrasts with the idea of a sedentary, lethargic and unhealthy woman. Nicolau's wife is fit both physically and mentally for the task of healing her husband. Similarly, she can be interpreted as a wife-nurse, a domestic extension of the family doctor.

The scheme is successful for three months, during which Nicolau transforms himself into the prototype of the modern patriarch, guided by the advice of his brother-in-law. Although the improvement is small, it is a victory for the doctor, who has achieved more than his patient's parents and teachers. However, ironically, Nicolau begins to resent the compliments paid to his wife, which had formerly comforted him in the period immediately after the wedding.

Durante três meses tudo caminhou às mil maravilhas. Mas a natureza, apostada em lograr o homem, mostrou ainda desta vez que ela possui segredos inopináveis. Um dos meios de agradar ao Nicolau era elogiar a beleza, a elegância e as virtudes da mulher; mas a moléstia caminhará, e o que parecia remédio excelente foi simples agravação do mal. Nicolau, ao fim de certo tempo, achava ociosos e excessivos tantos elogios à mulher, e bastava isto a impacientá-lo, e a impaciência a produzir-lhe a fatal secreção. Parece mesmo que chegou ao ponto de não poder encará-la muito tempo, e a encará-la mal; vieram algumas rixas, que seriam o princípio de uma; separação, se ela não morresse daí a pouco.

From the passage, it is not entirely clear whether Nicolau is envious of the compliments his wife receives or if he suspects her matrimonial fidelity. In either case, a

⁵⁷¹ Costa, J. F., pp. 180–198.

⁵⁷² Costa, J. F., p. 83.

possessive attitude towards wife and family was the expected norm of the morally and physically hygienic husband: 'profundamente convencido de que o verdadeiro homem era dono da mulher e fiscal dos filhos, o machista tornava-se um ciumento guardião da família higiênica'.⁵⁷³ From the hygienic point of view, Nicolau was on the right path to become a version of the 'pater familias'.

Machado de Assis constantly dissected the theme of jealousy in his work: from Félix (*Ressurreição*, 1872) to Bento Santiago (*Dom Casmurro*, 1899), he uses jealousy to discuss how the wealthy justify, through deceit and pretence, their suspicion of the lower classes, as Schwarz notes. Analysing *Dom Casmurro*, Schwarz argues that the narrator does not focus on how the poor challenge the elites. Instead, through the narrative voice of a melancholic and insecure patriarch (perhaps inflected by a malady of the spleen), the work shows how the upper classes blamed and condemned the lower classes for their lack of loyalty and gratitude:

Digamos então que a estratégica desconcertante do autor de *Dom Casmurro* constituiu em inverter, com propósito realista oblíquo, a direção dita moderna do espelhamento entre as classes. Ao invés de fazer com que a propriedade à brasileira e sua aura de privilégios, impunidades e justificações ideológicas se mirassem e se vissem criticadas nas aspirações de progresso dos dependentes, desejosos de direito e igualdade, ou seja, de civilização, Machado virava o refletor. E de fato, vista do ângulo apologético dos proprietários ciosos de autoridade, que julgam ter coberto de favores os seus dependentes, as reivindicações destes, mesmo a mais tímida, só pode parecer com um conjunto de ingratidões e baixesas.⁵⁷⁴

Like Bento Santiago, in Schwarz's reading, Nicolau is 'um figurão marcadamente retrógrado',⁵⁷⁵ whose wealth and resentment colour his attitude towards his wife. However, unlike the unreliable first-person narrator of *Dom Casmurro*, Nicolau is portrayed as a sick man, blind with an envy that becomes jealousy of the attention his wife receives. Perhaps the principal problem with Nicolau's feelings is that they hinder his interactions with his bride, causing the marriage to end with her premature death. In an undesired side-effect of the brother-in-law's prescription, he reverts to his old ways and returns to Rio de Janeiro.

After grieving for his deceased wife, Nicolau becomes involved in politics once more. The narrator informs us that he participates in the protests of 6 and 7 April 1831, which opposed Emperor Pedro I's custom of dismissing Brazilian ministers and appointing friends and acquaintances.⁵⁷⁶ Since the beginning of the decade, the emperor had faced protests,

⁵⁷³ Costa, J. F., p. 253.

⁵⁷⁴ Roberto Schwarz, 'Outra Capitu' in *Duas meninas* (São Paulo: Companhia das Letras, 1997) pp. 43–144, p. 95.

⁵⁷⁵ Schwarz, 'Outra Capitu', p. 95.

⁵⁷⁶ Schwarz & Starling, *Brasil*, Chapter 9, paragraph 50. EPUB file.

and his lack of public support was the result of the economic crises generated by the Cisplatine War (1824–27) and his authoritarian, absolutist power. The uprisings did not cease until he abdicated in favour of his son, Pedro II, and returned to Portugal. Nicolau, enraged by constant discussion of the emperor and his noblemen, decides to join the liberal opposition. For him, the sovereign's abdication brought relief – ‘abdicção foi um alívio’⁵⁷⁷ – for he ceases to read or hear comments about the emperor. However, as the infant Pedro II comes to power, Nicolau becomes a supporter of the conservative Caramuru Party that demands Pedro I's return. Although the plot makes no overt connections between politics and medicine, it is significant that Nicolau's nationalism, once a refuge from his attacks, is ineffective when it comes to his envy of the young Pedro II; unlike Nicolau's wife's destiny, the emperor would rule for many years. Is this due to the new optimism of the Empire, led by the young monarch? The answer can be found in the hygienists' praise of a ‘national consciousness’. According to Costa, after the institutionalisation of the faculties of medicine in Bahia and Rio in 1831, science became a part of politics: ‘os médicos, conscientemente, punham à disposição dos governos o que sabiam ou podiam fazer para levarem os indivíduos compactuarem com a ordem estatal’.⁵⁷⁸ Hence, Nicolau's temporary rebellion against the political situation represents a moral adaptation and acceptance of the status quo. It is as if after living as a patriarch, even for only three months, he felt he had a national obligation to control his passions and behave according to his social status. For this reason, ‘a vida pública de Nicolau cessou com a maioridade’;⁵⁷⁹ in other words, once the political turmoil provoked by the abdication of the emperor and the provisional governments was over, he could direct his anger elsewhere.

Equally, the ‘maioridade’ (1840), which marks Dom Pedro II taking power and the golden age of the Second Empire, consolidates Brazil's literary and cultural production. The Romantic movement and the proliferation of theatres and cultural spaces exacerbate Nicolau's condition: his illness prevents him from going to the theatre since the generous applause given to the leading performers hurts his ears; instead, he attends second-rate popular productions. Directing his energy to writing poems and speeches, Nicolau cannot seem to find appreciation for his own work or that of his peers. When he witnesses the honours given to the Indianist poet Gonçalves Dias, he becomes more ill, his nationalist

⁵⁷⁷ Assis, ‘Verba’, p. 357.

⁵⁷⁸ Costa, J. F., p. 210.

⁵⁷⁹ Assis, ‘Verba’, p. 357.

feelings hurt since he feels that Gonçalves's is the poetry of a 'povo trivial e de mau gosto'.⁵⁸⁰ The narrator explains this strange reaction to a literary work thus:

Esse sentimento literário, fruto de uma lesão orgânica, reagiu sobre a mesma lesão, ao ponto de produzir graves crises, que o tiveram algum tempo na cama. O cunhado aproveitou o momento para desterrar-lhe da casa todos os livros de certo porte.⁵⁸¹

Nicolau's disdain for Brazilian cultural output shows that his erstwhile patriotic feelings have turned to contempt and scorn. He sees Brazil as a country unworthy of his praise and respect. The Dutch doctor, insisting on the 'falha orgânica', tries to retrieve the situation by removing books from his library, which does not entirely solve the problem. The physician even contemplates the idea of a spleen transplant: 'Se pudéssemos dar-lhe um baço novo'⁵⁸² but that is impossible and Nicolau becomes increasingly tormented by compliments about his haircut, clothes and servants, urging him to seek out the worst professionals in town. His sickness turns into an obsessive autoimmune disease, directed at everything that others consider admirable, including himself. His feelings about the writers and nation of poor taste are translated into his personality, as he becomes the object of his own attacks.

It is important to note that the brother-in-law's experiment, combined with the country's political stability, has indeed changed Nicolau: he is established as an honourable man whose material possessions and wealth give him status and prominence. However, he does not feel deserving of his role, possibly due to his common birth – his father had a mediocre profession. Hence, his changes in tailor, housekeeper and other professionals mirror the return of something repressed or, in Freudian terms, the uncanny, a feeling of inappropriateness and uneasiness, if not, indeed, dis-ease. However, this inferiority complex is not presented as a personality flaw but as a social effect: it is as if Nicolau unconsciously perceives himself to be unworthy of a position of power. His disease, which contains a message about Brazilian nineteenth-century elites in an age of capitalist competition, is carefully managed by the doctor, who treats Nicolau to some extent but whose knowledge does not extend to the origin of his illness: a severe form of envy, aggravated by family life and strict social prescriptions. Nicolau's final act of rebellion is his refusal to take the medication prescribed to him by the best doctors in the Empire. The 'verba testamentária'

⁵⁸⁰ Assis, 'Verba', p. 357.

⁵⁸¹ Assis, 'Verba', p. 357.

⁵⁸² Assis, 'Verba', p. 357.

is a consequence of his preference for all things low, including his decision on how he should be buried.

In conclusion, this thesis interprets ‘Verba Testamentária’ as an ambiguous and humorous tale, which problematises medicine’s attempt at social control. The humour derives from a discrepancy: rather than solving a social problem, medicine fails because it is part and parcel of the same social problem – the economic concentration of capital and patriarchal power. Nicolau’s strange ‘illness’ is part of the historical process of recognising and developing a national identity, as examined by Gledson. It is also a statement on the power and at the same time the powerlessness of science to change families and society through normalising and regulating actions and habits. Since the doctor intervened in Nicolau’s life and improved it for a short while, it is possible to interpret his presence as a figure of authority. However, his failure lies in not realising that his role is akin to that of the government, reproducing and maintaining the status quo. Questioning the doctor’s power, the narrator ends the story by doubting the doctor’s conclusion: ‘a secreção do baço tornou-se perene, e o verme reproduziu-se aos milhões, teoria que não sei se é verdadeira, mas enfim era a do cunhado.’⁵⁸³ The double-edged dénouement reminds the reader of the ambiguity of supposed certainties of science, casting doubt on them and hinting at other explanations for Nicolau’s ‘illness’. Machado appears to suggest that the adoption of scientific models should be viewed with doubt and gentle humour rather than certainty.

O LAPSO: THE SCIENCE OF PAYING

One year after the publication of ‘Verba Testamentária’, the short story ‘O Lapso’ was released in April 1883 in *A Gazeta de Notícias*. It presents the account of the Dutch doctor Jeremias Halma, who cures the nobleman Tomé Gonçalves of a mysterious illness that prevents him from understanding or recognising the concepts of payment or debt. ‘O Lapso’ can be interpreted as continuing and complementing ‘Verba Testamentária’: again, we see a diligent Dutch doctor and an ‘uncanny’ health condition whose roots lie hidden or repressed in social structures. At the same time, it depicts the efforts of a mildly competent doctor to cure his patients by demonstrating how diseases affect social and interpersonal relations. Unlike the brother-in-law, who tried to control his patient’s professional and personal life, Halma does not intervene in family relations nor show any ambition to control

⁵⁸³ Assis, ‘Verba’, p. 358.

his patient. Instead, he resorts to didactic strategies to treat Tomé, such as teaching, which – also in contrast to the unsuccessful brother-in-law’s methods – are thoroughly effective. His patient becomes an exemplary citizen, paying for every service he requests. The main irony of the treatment is that neither Tomé nor the other people who ask for the doctor’s help actually pay for his services. The approximation of medicine to a socio-economic exchange alludes to an emerging social structure in which social medicine and the capitalist system are interconnected.

Roberto Machado argues that the medical ‘production’ of a new type of ontogenesis and phylogenesis in Brazil was intrinsically connected to the rise of capitalist society even before the country’s industrialisation. For Machado, *medicina social* played a pioneering role in advancing a causal relationship between health and culture.⁵⁸⁴ The geographer Gisele Almeida expands on this idea by stating that not only individuals but also the city and its surroundings were targeted by social medicine. Almeida stresses that the state was responsible for a civilisation project that created the material conditions to reproduce an urban space centred on the bourgeoisie.⁵⁸⁵ The sociologist Gabriel Pugliese adds that the transformation of the colony’s social environment and population was connected to an imperial spatial exchange in which both the ‘weak’ colonial individual and the insalubrious city needed to be reinvented. It was, therefore, the task of the doctor, as a socio-political agent, to introduce ‘novos hábitos no mundo luso-brasileiro, “onde residem valetudinários e frouxos”, doentes e incapazes de contribuir com a sociedade’.⁵⁸⁶ Following these critics’ socio-historical approaches, we see, once again, the connections between the emergence of social medicine and an imperial project of obedience and surveillance. Accordingly, in the service of ‘order and progress’, citizens were encouraged (or coerced), either physically and/or ideologically to follow specific behavioural guidelines to allow a capitalist system both imported and domestic to flourish. When observed in this historical light, ‘O Lapso’ presents a fundamental contradiction: if Tomé represents the new bourgeoisie, why does he struggle to follow the market’s guidelines, to pay even the minimum for the services he receives? Furthermore, why does the doctor target Tomé instead of the tradesmen who are the supposed ‘valetudinarians’ for the colonial authorities?

⁵⁸⁴ R. Machado et. al., p. 156.

⁵⁸⁵ Gisele Cardoso de Almeida Machado, ‘A difusão do pensamento higienista na cidade do Rio de Janeiro e suas consequências espaciais’, *Anais do XXVI Simpósio Nacional de História – ANPUH*. São Paulo, July 2011. <https://www.snh2011.anpuh.org/resources/anais/14/1308340710_ARQUIVO_GiseleCardosodeAlmeidaMachado-ANPUH.pdf> [Accessed 13 January 2021].

⁵⁸⁶ Gabriel Pugliese, ‘Higiene e a reinvenção da dietética: a economia política da vida na medicina luso-brasileira da passagem do século XVIII para o XIX’, *Anuário Antropológico – UNB* 45.1 (Jan-Apr 2020), 232-248, (p. 243).

To answer these questions, it is essential to consider ‘O Lapso’ as a series of narrative strategies exposing the problematic relationship between medicine and the proto-capitalist-colonial project of civilisation. ‘O Lapso’ is set in 1768, when social medicine began to emerge in the colony’s public policies. This temporal displacement contributes to the story’s anachronistic estrangement, since its themes and plot refer rather to the nineteenth century. The form in which the narrator frames the narrative also generates a sense of estrangement, doubt and scepticism. The linguist Miriam Bauab Puzzo argues that the narrator presents a ‘modo dúbio de narrar... afirma e nega, duvida das próprias palavras, como se dialogasse com seu duplo, com o outro que o constitui’.⁵⁸⁷ Similarly, the literary critic Ivo Barbieri⁵⁸⁸ affirms that the narrator creates a narrative patchwork in which quotations and ideas are removed from their original context and pieced together in a fragmented fashion. And yet, while the critics point to the ambiguous and fragmented narrative structure of ‘O Lapso’, they do not relate this to the emergence of social medicine, nor connect it to the complex ties and tensions between medicine and capitalism, which are translated into social medicine and its critico-philosophical associations. The present analysis complements the observations of Puzzo and Barbieri by examining narrative structures, such as the fragmentary organisation of the story and its intertextualities, and the relationship between social medicine and a capitalist system. The importance of interconnections between narrative structures and medicine is a function of the latter’s ideological power, which not only changes attitudes and emotions but also supports emerging social structures, including economic structures that, at least partially if not totally, condition these very same attitudes and emotions.

‘O Lapso’ opens with an epigraph from Chapter 42 of the biblical book of Jeremiah. Known as the ‘weeping prophet’,⁵⁸⁹ Jeremiah was an Old Testament messenger from God who denounced Jerusalem’s infidelity and corruption – the causes of its destruction and fall between 627 BCE and 587 BCE. The quotation alludes to the repentance of the people of Israel who, in exile, ask Jeremiah to intervene for them. Instructed by God, Jeremiah advises the Israelites to stay in exile until the destruction of the city and its temple by the Babylonians. The narrator, creating an obvious parallel with the biblical account by calling the doctor

⁵⁸⁷ Miriam Baub Puzzo, ‘As trapaças linguísticas do Narrador Machadiano’, *Miscelânea – Revista de Pós-Graduação em Letras* 5 (Dec 2008/May 2009), 222-238 (p. 226).

⁵⁸⁸ Ivo Barbieri, ‘O Lapso ou uma Psicoterapia de Humor’, *A Biblioteca de Machado de Assis*, org. by José Luis Jobim (Rio de Janeiro: Academia Brasileira de Letras 2001), pp. 335-348, p. 344.

⁵⁸⁹ Delbert Hillers, ‘Lamentations of Jeremiah, The’, in *The Oxford Companion to the Bible*, ed. by Bruce M. Metzger & Michael D. Coogan (Oxford: Oxford University Press, 1992), p. 419 <<https://www-oxfordreference-com.ezp.lib.cam.ac.uk/view/10.1093/acref/9780195046458.001.0001/acref-9780195046458-e-0371>> [accessed 24 February 2020].

‘Jeremias’, begins the story with a negation: ‘Não me perguntem pela família do Dr. Jeremias Halma, nem o que é que ele veio fazer ao Rio de Janeiro, naquele ano de 1768, governando o conde de Azambuja, que a princípio se disse o mandara buscar; esta versão durou pouco’.⁵⁹⁰ According to Puzzo, the narrator thus demonstrates that he is affected by memory lapses and cannot recall the details of the physician’s time in Brazil. However, the eponymous narrative lapse is more than a witty reference to the title and Tomé’s illness; it is an allusion to the narrative form of the book of Jeremiah whose oracles are not arranged in chronological order: ‘Foi-lhe ainda dirigida no tempo de Joaquin, filho de Josias, rei de Judá, até o fim do décimo primeiro ano do reinado de Sedecias, filho de Josias, rei de Judá, até a deportação dos habitantes de Jerusalém, no quinto mês.’⁵⁹¹ Furthermore, Jeremiah is not only non-linear but, in the original traditions of Biblical rather than Bakhtinian criticism, heteroglossic. According to the theologian Robert Davidson,⁵⁹² ‘Jeremiah’ is characterised by a variety of styles from reflective poetry to oracle and prose, in which visions of destruction with are interspersed with words of hope and redemption. ‘O Lapso’ echoes this variety of styles by quoting and alluding to different authors and sources of information, as if the narrator could not grasp the entirety or complexity of the situation, in the same way that Jeremiah could not entirely grasp the divine plan. Nevertheless, when the narrator’s memory does not lapse, the information given is detailed and specific, such as the description of the Dutch doctor:

Viajara muito, sabia toda a química do tempo, e mais alguma; falava correntemente cinco ou seis línguas vivas e duas mortas. Era tão universal e inventivo, que dotou a poesia malaia com um novo metro, e engendrou uma teoria da formação dos diamantes. Não conto os melhoramentos terapêuticos e outras muitas coisas, que o recomendam à nossa admiração.⁵⁹³

Jeremias Halma embodies the Renaissance man, whose knowledge of science, mathematics and languages enables him to perceive the world through a ‘quantitative epistemology’, ‘which held that such an ideal exhausted everything accessible to human knowing’.⁵⁹⁴ In the passage quoted above, the new poetic metre he invented and his theory of diamonds demonstrate an aptitude for numbers and measures. Halma, thus, represents the vision of a

⁵⁹⁰ Assis, ‘O Lapso’, p. 372.

⁵⁹¹ *The Holy Bible* <<https://www.bibliacatolica.com.br/biblia-ave-maria/jeremias/1/>> [Accessed 20 March 2023].

⁵⁹² Robert Davidson, ‘Jeremiah, The Book of’, in *The Oxford Companion to the Bible*, ed. by Bruce M. Metzger, & Michael D Coogan, <<https://www.oxfordreference.com.ezp.lib.cam.ac.uk/view/10.1093/acref/9780195046458.001.0001/acref-9780195046458-e-0371>> [accessed 24 February 2020].

⁵⁹³ Assis, ‘O Lapso’, p. 372.

⁵⁹⁴ Peter Dear, *Discipline and Experience: The Mathematical Way in the Scientific Revolution* (Chicago: University of Chicago Press, 1995), p. 1.

measured, objective and rational medicine, which soberly formulates solutions to physical and mental problems. At the same time, his surname is a homophone of 'alma' or 'soul' in vernacular Portuguese. However, 'alma' has a lesser-known meaning as the mouth of a cannon – 'o vazio interior de uma boca de fogo: a alma do canhão',⁵⁹⁵ indicating that the doctor may also have the power of destruction. The description of Jeremias is both related to and different from the Brazilian doctors that this thesis has previously examined. His ambivalent name makes him as destructive and unpredictable as Simão 'the blunderbuss' Bacamarte's ('O Alienista'), although he does not aspire to fame and prestige like Simão or, for that matter, Macedo ('Idéias de Canário'). Instead, Halma seems to be concerned with something greater than himself, a cure or theory that will endure beyond his life, like the soul in Christian theology, but which can perhaps only be achieved by violent means.

After describing Jeremias, the narrator focuses on the patient, the wealthy Tomé Gonçalves, a prosperous *fidalg*o and politician who seems always to have behaved according to his title and class. However, instead of gathering knowledge (like the biblical Jeremias), Tomé accumulates money, debts and, therefore, creditors and rivals since he does not pay for the services or commodities he consumes. With impressionistic and vague language, the narrator does not fully explain why Tomé does what he does: 'o descuido podia explicar os seus atrasos, a velhacaria também; mas quem opinasse por uma ou outra dessas interpretações, mostraria que não sabe ler uma narração grave.'⁵⁹⁶ Instead, he ascribes the diagnosis to Jeremias Halma, the doctor who observes Tomé's gestures during a church service: 'esse curioso fenômeno, cuja causa, se a conhecemos, foi porque a descobriu o Dr Jeremias'.⁵⁹⁷ The narrator's vagueness regarding Tomé's origins and illnesses contrasts with the doctor's description, which is clear and precise. This contrast creates an uncanny atmosphere, as if the doctor were intervening in a morbid and bizarre case which is difficult to grasp. Then again, the contrast could equally be interpreted as a mode of narrative suspicion since the narrator neither agrees nor disagrees with the doctor but simply reports Jeremias's conclusions and treatment. In a manner that resembles that of the narrator of 'Verba Testamentária', the narrator of 'O Lapso' seems to be incredulous, or at least confused, by Halma's methods and reasoning.

During a church procession, the narrator focuses on the doctor and two merchants. While Halma carefully observes Tomé piously carrying a canopy, the hairdresser and the

⁵⁹⁵ 'Alma', in Dicionário Online de Português, <https://www.dicio.com.br/alma/> [Accessed 17 April, 2021].

⁵⁹⁶ Assis, 'O Lapso', p. 373.

⁵⁹⁷ Assis, 'O Lapso', p. 373.

tailor consider whether or not to take legal action against Tomé, who owes them a substantial amount of money. Overhearing their conversation, Halma asks why they should conspire against a sick man. He then proceeds to invite them to a private meeting to discuss Tomé's illnesses. Not fully trusting Halma, the hairdresser and the tailor invite many of Tomé's creditors to a 'conciliábulo', a secret meeting, to decide whether it is sensible to trust the doctor. While describing the grave expressions and sober garments of the creditors who gather in D. Aninha's house on the pretext of a baptism ceremony, the narrator breaks off from the plot to introduce an observation. Commenting on the essay 'Two Races of Men' (1823) by the early Romantic writer Charles Lamb, he states that Lamb was correct: the lenders were sad and hesitant, while the borrowers (in this case, Tomé) were generous, providing entertainment and feasts for their friends. The quotation, reproduced in Machado's text in English, 'the open, trusting, generous manner of the other',⁵⁹⁸ alludes to the expansive and carefree attitude of those who are 'naturally' prone to spending. The intertextual reference sets the stage for opposition between the two 'races' of man in 'O Lapso': those who sadly and confidentially meet and are enraged by their debtors; and Tomé and his friends, who blissfully and publicly share a roast dinner, but who have not paid for the bird they eat.

As the critic Eugênio Gomes argues, the reference to 'Two Races of Man' connects Machado's story to the world of eighteenth- and early nineteenth century English satire. It is essentially the same universe that Machado directly references in the 'Prologue' of the first edition of *Memórias Póstumas de Brás Cubas* (1881), in which he attributes to Laurence Sterne – as well as Xavier de Maistre – the inspiration for the 'forma livre' of his novel. The critic Benjamin Woodbridge Jr. identifies yet another intertextual tie with Lamb's essay 'My Relations' in the short chapter 'Oblivion' of *Memórias Póstumas*. Brás, reflecting on ageing, quotes a nameless Englishman, and argues that the most challenging ordeal of old age is the realisation that future generations will not remember him. A preference for humour and satire is one of the elements that draws Machado to the English essayist. Another, arguably, is that the two writers shared a working class perspective. According to the critic Gerald Monsman, Charles Lamb's:

... clerk/servant status (his father as well as his mother came from the servant class) may have produced in him something very much like the antagonistic acculturation (adopting the dominant's group means but resisting its goals) of socio-cultural interaction. Like a number of writers, Lamb's purpose is to discredit the norms which the dominant culture assumes by ironising conventional responses for new ends –

⁵⁹⁸ Assis, 'O Lapso', p. 374.

the really good clerk who ‘pens a stanza when he should engross’ is not a creature who subordinates his identity to that of his employer.⁵⁹⁹

This remark could be applied equally to Machado de Assis, whose literary voice is permeated by an outsider’s experience that serves as a critical weapon.

In the case of ‘O Lapso’, Machado replays Lamb’s humorous style to create a broader satire of the intellectual discourses that emerged in the eighteenth century. Published in Lamb’s *Essays of Elia* (1823), ‘Two Races of Man’ exemplifies the narrator’s thesis about cheerful borrowers and disgruntled lenders with the story of the rich Ralph Bigod, Esq., who never hesitated to spend his friend’s money. Hyperbolically comparing Bigod to Alexander the Great, Elia argues that his ‘regal’ intention was ‘borrowing to borrow’,⁶⁰⁰ which means that his pleasure derived from the act of borrowing money to lend it to his acquaintances. This merry cycle of borrowing and spending was, for Bigod, secretly connected to the fact he had ‘a tythe part of the inhabitants under contribution’.⁶⁰¹ In other words, Bigod enjoyed having power over his borrowers and lenders since, as the Englishman humorously put it, ‘money kept longer than three days stinks’.⁶⁰² The narrator states that he mainly drank and gave his money away until his death. Viewed in the light of Lamb’s essay, there is a connection between Bigod and Tomé: both lead comfortable lives at the cost of others, borrowing and spending more than they have. However, while Bigod seems to borrow from his equals, Tomé takes from his subordinates. This difference between the characters, apart from conferring a perverse tonality on Machado’s story, has the function of laying bare the contradictions of the upper classes in Brazil, as explained by Roberto Schwarz:

Estas [elites brasileiras] se queriam parte do Ocidente progressista e culto, naquela altura já francamente burguês (a norma), sem prejuízo de serem, na prática, e com igual autenticidade, membro beneficiário do último ou penúltimo grande sistema escravocrata do mesmo Ocidente (a infração).⁶⁰³

Schwarz’s distinction between the ‘norm’ of Western societies and the ‘infraction’ of the Brazilians sheds light on the disparity between Bigod and Tomé. The fact that Tomé ‘unwillingly’ abuses his subordinates is because unpaid work – or slavery – predominates in ‘the periphery of capitalism’ – to use Schwarz’s famous expression. Tomé, as an entitled

⁵⁹⁹ Gerald Monsman, ‘Charles Lamb’s Elia as Clerk: The Commercial Employment of a Literary Writer’, *The Wordsworth Circle*, 21.3 (1990), 96-100 (p. 99).

⁶⁰⁰ Charles Lamb, *Essays of Elia* (London: Everyman’s Library, 1962), p. 27.

⁶⁰¹ Lamb, p. 27.

⁶⁰² Lamb, p. 27.

⁶⁰³ Schwarz, *Um Mestre*, p. 42.

member of his class, accumulates capital and does not understand why he has to pay for even the most basic services; his attitude is part of a broader social ethos.

While the parallels between Bigot and Tomé reflect the economic exchanges of Western-colonial societies, the quotation from Lamb in 'O Lapso' has broader social implications. The use of the term 'race' in relation to paid and unpaid labour cannot simply be interpreted as a metaphor for a type of behaviour or personality. The narrator of 'O Lapso', as Ivo Barbieri argues, is also satirically criticising eighteenth- and nineteenth-century racial scientific taxonomies.⁶⁰⁴ The criticism of scientific theories, though, is made via Lamb's essays, since in 'Imperfect Sympathies' (published in the same collection as 'Two races...'), Elia humorously confesses being a 'bundle of prejudices',⁶⁰⁵ and proceeds to proffer sardonic remarks about the 'Scottishmen', 'Jews', 'Negros' and 'Quakers'.⁶⁰⁶ This 'bundle of prejudices', though, is not a particular trait of Elia's personality but part of the eighteenth- and nineteenth-century social and intellectual Zeitgeist. As discussed in the previous chapter, in the eighteenth century, when the story is set, scientific treatises provided racial hierarchies by which they justified colonial enterprises.⁶⁰⁷ According to Lilia Schwarcz, these works interpreted humanity according to the contradictory ideas of the Enlightenment and the French Revolution: 'once people presumed that freedom and equality were natural, they began to think about the unity of humanity and universality of equality, both of which [they] understood to be natural'.⁶⁰⁸ The debate about the equality of human beings paradoxically led to the idea that the Brazilians and Brazil needed scientific intervention to 'improve' their 'savage' habits and way of life. The rational, guided social medicine of the nineteenth century transformed the medical class into an agent of change. As Roberto Machado argues:

O século XIX assinala para o Brasil o início de um processo de transformação política e econômica que atinge igualmente o âmbito da medicina, inaugurando duas de suas características, que não só, têm vigorado até o presente, como têm-se intensificado cada vez mais: a penetração da medicina na sociedade, que incorpora o meio urbano como alvo da reflexão e da prática médicas, e a situação da medicina como apoio científico indispensável ao exercício de poder do Estado.⁶⁰⁹

⁶⁰⁴ Barbieri, 'O Lapso', p. 344.

⁶⁰⁵ Lamb, p. 68.

⁶⁰⁶ Lamb, pp. 68-75.

⁶⁰⁷ Schwarcz, *The Spectacle of the Races*, p. 49.

⁶⁰⁸ Schwarcz, *The Spectacle of the Races*, p. 46.

⁶⁰⁹ R. Machado et. al., p. 155.

With the support of medicine, the Brazilian imperial state took upon itself the mission to intervene in society to eliminate sickness and abnormalities by transforming people's habits and behaviour. In 'O Lapso', this enterprise is accomplished by Dr Halma when he cures Tomé. However, the narrator complicates matters by singling out the idea of unpaid labour and suggesting that Tomé's sickness is a symptom of a broader 'infraction' of the burgeoning capitalist order: the endurance of slavery and its scientific and political justifications, since Afro-Brazilians and indigenous populations were seen as inferior.

Machado de Assis foreshadows the intricate ideological and economic interconnections that constitute the 'coloniality of power', as expounded by the Peruvian sociologist Aníbal Quijano who maintains that, since the early colonisation of America, 'Europeans associated nonpaid or non-waged labor with the dominated races because they were "inferior" races'.⁶¹⁰ Quijano continues by claiming that:

The racial classification of the population and the early association of the new racial identities of the colonised with the forms of control of unpaid, unwaged labor developed among the Europeans the singular perception that paid labor was the whites' privilege.⁶¹¹

Although Quijano focuses on Spanish America, the claim is equally valid for Brazil. Roberto Schwarz makes a similar point in arguing that Brazilian imperial elites rationalised slavery in ways that sound incongruous today. Schwarz quotes the nineteenth-century politician Bernardo Pereira de Vasconcelos, who claimed that Africa transformed Brazil into a civilised nation by providing the country with hard-working people whose labour allowed the offspring of plantation owners to study in European universities and bring science, technology and progress to their lives.⁶¹² The train of thought is flawed, since the concentration of knowledge⁶¹³ and wealth remained – and to a certain extent, remains⁶¹⁴ – in the hands of a minority elite. However, the same bizarre and fantastic logic is present in the plots that Machado de Assis slyly devises when addressing themes of science, order and progress.

⁶¹⁰ Anibal Quijano & Michael Ennis, 'Coloniality of Power, Eurocentrism, and Latin America', *Nepantla: Views from South*, 1.3, (2000), 533-580 (p. 538).

⁶¹¹ Quijano & Ennis, 'Coloniality', p. 539.

⁶¹² Roberto Schwarz, *Um Mestre na Periferia do Capitalismo*, São Paulo: Duas Cidades, 2000, p. 42-44.

⁶¹³ Literacy in Brazil was still only around thirty per cent in the 1930s. Unlike the rest of Latin America, formal universities were founded in the same decade and the National Research Council, CNPq, now National Council for Scientific and Technological Development – and CAPES, were established in the 1950s. Kristen Bound, *Brazil: The Natural Knowledge*. (London: Demos, 2008), p. 22.

⁶¹⁴ Tadeu A Arrais, 'Desigualdade de Renda, Emprego Público e Transferências de Renda no Brasil contemporâneo', *Mercator*, 18 (2019) <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1984-22012019000100206&lng=en&nrm=iso> [accessed 18 April 2021].

The uncanny and unfamiliar are seen in 'O Lapso' when Halma has to cure a man of his unorthodox habit of not paying, yet wealthy classes often refuse to pay for the services they receive. The doctor, in this sense, is an ambiguous figure: while he wishes to help the workers, he is also a guardian of the dominant order. The fact that he is not paid for his services adds an ironic note, a suggestion that perhaps Halma belongs to an 'inferior race' that does not deserve to be paid. Or perhaps it is simply an indication that there is always someone at a disadvantage in the broader economic scheme.

The short story continues with the meeting between the Dutch doctor and three representatives of the creditors: a shoemaker, a tailor and a hairdresser. Patiently, Jeremias explains that Tomé's case is similar to that of other individuals he has treated: a pharmacist whose lack of spatial awareness made him reach for the stars and mistake windows for doors, and a Catalan woman who confused her husband with different men. Indicating that these cases and that of Tomé all relate to memory lapses, Halma assures the creditors, who are also workers, that he has the perfect medication to cure their debtor. The only problem is that the doctor is not intimately acquainted with Tomé. Desperate at the prospect of a failed treatment, Mata (the shoemaker) decides to appeal to the doctor's feelings by exaggerating his colleague's problems. The move is effective, for the narrator describes how the doctor becomes highly emotional as he hears the shoemaker's account⁶¹⁵ and still more eager to help: 'tinha os olhos úmidos de lágrimas. O acanhamento de suas maneiras era compensado pelas expansões de um coração pio e humano. Pois, sim; ia tentar o curativo, ia pôr a ciência ao serviço de uma causa justa.'⁶¹⁶ The narrator, hyperbolically emphasising the messianic powers of medicine as interpreted by the doctor, metaphorically evokes the pretensions of social medicine to solving social problems, synthetically expressed as 'uma causa justa' (a just cause). Simultaneously, the persuasive strategies used by the creditors-workers suggest another type of 'scientific' strategy – the survival of the 'fittest' or, in this case, the best-adapted.

In their conversation with Jeremias, the workers demonstrate how astute and cunning they are – in parenthetical dissonance with Lamb's portrayal of lenders as sad and gloomy. The narrator describes Mata, for instance, as a warrior who fights eagerly for his cause:

Mata, um capitão dos grandes dias, viu o ponto fraco do inimigo; advertiu que as suas primeiras palavras tinham comovido o médico, e tornou às lágrimas das famílias, aos

⁶¹⁵ Assis, 'O Lapso', p. 375.

⁶¹⁶ Assis, 'O Lapso', p. 376.

filhos sem pão, porque eles não eram senão uns tristes oficiais de ofício ou mercadores de pouca fazenda, ao passo que o Tomé Gonçalves era rico.⁶¹⁷

Mata highlights the class difference between the workers and Tomé. He is not 'weak', as the medical treatises of the period characterised the 'native' population, but aware of the social hierarchies of Brazilian society. The worker, therefore, demonstrates the struggle for survival for himself and his peers. In other words, the passage constructs a symbolic association with social Darwinism.

For Lilia Schwarcz,⁶¹⁸ the notions of hierarchical difference assumed greater importance in the nineteenth century, buttressed by racial and degeneracy theories that understood intellectual skills as simply biological genetics. The nineteenth century appropriated the idea of the survival of the fittest in the form of social and racial Darwinism to justify – and naturalise – social inequalities and European imperialism.⁶¹⁹ It is a theory that not only 'provided a theoretical basis for conservatism',⁶²⁰ but also a rationale for domination by the West, which saw itself as 'stronger and better adapted'⁶²¹ than other populations. This immediate transposition of the biological to the social sphere was part of a wider historical phenomenon, which critic Morse Peckham calls 'darwinisticism':

an evolutionary metaphysic about the nature of reality and the universe. It can be a metaphysical and simplistic notion of natural law. It can be an economic theory, or a moral theory, or an aesthetic theory, or a psychological theory. It can be anything which claims to have support from the *Origin*.⁶²²

The critic Elide Valarini Oliver, for her part, argues that Machado de Assis, in his novel *Quincas Borba* (1896), satirises the notion of 'darwinisticism' by constructing an eccentric character, Quincas, who invents a theory whose premises drive him to madness and death. For Oliver, the same theory, under the name 'Humanitismo',⁶²³ is a moral concept centred on the notion that epidemics, wars and fatalities are positive outcomes for the survival of the strongest group. Rather than simply a satire of social Darwinism, it constitutes itself as a 'moral attack against individual delusions of grandeur'.⁶²⁴ Grounded on Peckham's distinction, Oliver presents Machado's criticism of social Darwinism as an attack on the

⁶¹⁷ Assis, 'O Lapso', p. 376.

⁶¹⁸ Schwarcz, *The Spectacle of the Races*, p. 49.

⁶¹⁹ Schwarcz, *The Spectacle of the Races*, p. 59.

⁶²⁰ Schwarcz, *The Spectacle of the Races*, p. 59.

⁶²¹ Schwarcz, *The Spectacle of the Races*, p. 59.

⁶²² Morse Peckham, 'Darwinism and Darwinisticism', *Victorian Studies*, 3, 1 (1959), 19-40 (p. 32).

⁶²³ Elide Valarini Oliver, *Some Observations on the Treatment of Individual Consciousness and Darwinisticism in Machado de Assis* (2003) pp. 1-50. <<https://www.lac.ox.ac.uk/sites/default/files/lac/documents/media/oliver39.pdf>> [Accessed 28 September 2022].

⁶²⁴ Oliver, p. 42.

arrogance and presumption of those who belong to supposedly 'superior' or 'victorious' classes. Without mentioning Machado de Assis's short stories about science, Oliver draws attention to how self-interest represents one element of the design of a new capitalist-scientific order. However, in 'O Lapso', the workers use their linguistic power and confidence (in other words, their self-interest) to convince Jeremias to cure Tomé. It is as if the workers have unconsciously absorbed the ideology of the 'survival of the fittest' and used it in their favour.

Jeremias, however, is naïve, for he does not understand linguistic subtleties. The doctor fails to perceive that Mata and his friends' astute speeches aim to convince him to treat Tomé and perhaps not charge them for his services. They appeal to the doctor by praising him for his good deeds, which are enough to move Jeremias, who feels even more compelled to help them.

Naturalmente, a alegria dos deputados traduziu-se em rapapés infindos e grandes louvores aos insignes merecimentos do médico... E, na rua, quando ele já os não podia ouvir, não se fartavam de elogiar-lhe a ciência, a bondade, a generosidade, a delicadeza, os modos tão simples! tão naturais!

The doctor cures Tomé of his memory lapse by giving him a miraculous drug and explaining the laws of the market to him. Methodically and patiently, Jeremias re-enacts and shows the production cycle to Tomé by taking him to tradesmen's shops and teaching him what is involved in making a shoe or a wig. It is as if the narrator creates an uncanny and ironic de-alienating strategy, which effectively reinforces capitalist ideology instead of hiding its mechanics. The healing procedure is also allied to the reference to Tomé's name in the gospel of St John,⁶²⁵ which recounts Jesus's resurrection. In Chapter Twenty, the evangelist emphasises how astounded the disciples were when their master came back from the dead. One of them, Thomas (Tomé), was particularly incredulous, saying that he needed to see and touch Jesus's hands and wound to believe he had returned. After appearing to the disciples, Jesus tells Thomas to examine him and, only after doing so, does he accept the miracle. In 'O Lapso', there is a similarity between the methods used by Jesus and Jeremias: they use visual and individualised experiences to teach Tomé, whether of Christianity or capitalism. Most interestingly, the disciples and Tomé were warned that Jesus would be resurrected; however, they did not remember or understand it, as the biblical story elucidates: 'for they did not yet understand the scripture that Jesus must rise from the

⁶²⁵ The NET Bible – Scholars Edition, John 20: 1-31, <<https://bible.org/netbible/>> [Accessed 2 May, 2021].

dead’.⁶²⁶ Similar to the biblical Thomas, Machado de Assis’s Tomé requires a practical demonstration of ‘paying’ to be convinced that it exists, just as the disciple needed physical proof of the resurrection. Furthermore, Tomé’s treatment is preceded by a complete re-enactment of the economic cycle – as capitalism depends on repetition and reproduction – to convince the sick patient of its importance. However, just like the disciples, Tomé knew about ‘paying’, he simply needed to experience it again (numerous times, as the narrator stresses) to be reminded of its existence. Tomé’s cure, therefore, involves the reactivation of memory as a lived experience.

The connection between experience and memory in Machado de Assis is explored by Sávio Passafaro Péres and Marina Massimi in their analysis of the short stories ‘Dona Paula’ (1884) and ‘Missa do Galo’ (1893) and the novel *Dom Casmurro* (1899). For the two critics, the concept of memory in these works is related to an ‘experiência vivida’ in which the recollection of an event is permeated by re-signification and adaptation.⁶²⁷ Thus, memory is re-constructed via conscious and unconscious experiences, emotions and language. Without making an explicit connection to the philosopher Walter Benjamin, Péres and Massimi seem to allude to the notion of ‘memory’ as both an individual and collective experience, which Benjamin examines throughout his work. This idea deserves further consideration before we continue discussing ‘O Lapso’.

In ‘On Some Motifs in Baudelaire’, Benjamin distinguishes between two types of experience: *Erfahrung* (experience) and *Erlebnis* (‘something lived through’).⁶²⁸ Following the philosopher Henri Bergson, Benjamin argues that ‘experience is indeed a matter of tradition, in collective existence as well as private life. It is less the product of facts firmly anchored in memory than of a convergence in memory of the accumulated and frequently unconscious data’.⁶²⁹ This ‘unconscious’ process gives rise to the idea of ‘involuntary memory’, activated via emotions and affections. Benjamin cites the technique used by Marcel Proust in *À la recherche du temps perdu* (1913), which ‘confronts “involuntary memory” with a “voluntary memory”, one that is in the service of the intellect’.⁶³⁰ The narrator of *À la recherche...* tastes a cake called a madeleine, which mnemonically ‘transports’ him back to his childhood in Combray. The flavour of the cake is an external agent of ‘involuntary

⁶²⁶ The NET Bible. John 20: 14-16.

⁶²⁷ S. P. Peres & M. Massimi, ‘O conceito de memória na obra de Machado de Assis’, *Memorandum: Memória e História em Psicologia*, 15 (2008), 20-34 <<https://doi.org/10.35699/1676-1669.2008.6681>>

⁶²⁸ Walter Benjamin, *Illuminations: Essays and Reflections*, trans. by Harry Zohn (New York: Schocken Books, 1968), p. 194.

⁶²⁹ Benjamin, *Illuminations*, p. 157.

⁶³⁰ Benjamin, *Illuminations*, p. 157.

memory' which, guided by the attentiveness of the mind, brings to the surface Marcel's experience (*Erfahrung*) as a 'longue durée'. In contrast to this kind of experience, Benjamin argues that early-twentieth-century conurbations have fundamentally changed the relationship between the individual and memory. Drawing on studies by the psychoanalyst Sigmund Freud, Benjamin states that memory fragments 'are most powerful and most enduring when the incident which left them behind was one that never entered consciousness',⁶³¹ which means that what becomes an 'involuntary memory' has to be experienced unconsciously.

Inspired by the essay 'Beyond the Pleasure Principle' by Sigmund Freud, Benjamin argues that memory is supported by other systems such as consciousness. However, consciousness has no memory function, instead, it protects living beings against traumatic stimuli and shocks: 'such memory-traces, then, have nothing to do with the fact of becoming conscious; indeed they are often most powerful and most enduring when the process which left them behind was one which never entered consciousness'.⁶³² Developing the notion of trauma, Benjamin maintains that modern capitalism, emblematised by city life, bombards the individual with stimuli, transferring a reified sense of estrangement from a scale of mass production to an individual's psychic energy. Such a change affects the memory, which protects the unconscious from trauma, reducing it to 'the sphere of a certain hour in one's life (*Erlebnis*)'.⁶³³ In this way, people lose the ability to make connections with 'longue durée', or the experience and interconnectedness of their life. Benjamin scrutinises the poetry of Charles Baudelaire, which brings to the surface the shocks, traumas and wonders of modern life through the figure of the *flâneur*. Baudelaire thus 'gives weight of an experience (*Erfahrung*)'⁶³⁴ to 'something that is 'lived through (*Erlebnis*)'.⁶³⁵ Thus, for Benjamin, memory is a complex notion anchored both in a prolonged sensation of the continuation of one's life through history and communal values (*Erfahrung*) and the modern impressions and shocks produced by large-scale capitalism (*Erlebnis*).

Benjamin's conceptualisation is useful for this thesis's understanding of the function of memory in the treatment of Tomé. According to the critic Karyn Ball, Benjamin's distinction is part of the German idealistic nostalgia for a pre-modern organic community

⁶³¹ Benjamin, *Illuminations*, p. 160.

⁶³² Sigmund Freud. Sigmund Freud, 'Beyond the Pleasure Principle', *Psychoanalysis and History* 17.2 (2015), 151-204, (p. 167).

⁶³³ Benjamin, *Illuminations*, p. 163.

⁶³⁴ Benjamin, *Illuminations*, p. 194.

⁶³⁵ Benjamin, *Illuminations*, p. 194.

in which solidarity and shared values endured.⁶³⁶ However, the historical changes of the twentieth century made it impossible for individuals to return to a sense of collective belonging and a prolonged sense of memory. For this reason, Baudelaire's poetic singularity stems 'from its ability to enunciate the destruction of collective experience that transpires as capital curtails its range and contents as well as the "kind of collective experience that would be transmissible"'.⁶³⁷ From this perspective, Ball contends that Baudelaire's work suggests that there is 'no real transmissible, durable experience – that is not mediated by market forces'.⁶³⁸ Similarly, in 'O Lapso', the market seems to prevail, since it is possible to observe that Tomé's memory and treatment, as conceived by the doctor, recapture the individual perception of a collective experience within an economic context of debit and credit. However, no affection or involuntary stimuli cause Tomé to recover and reaffirm his ties with his community. Tomé seems to be paying his creditors, but he is not connecting personally with any of them, neither establishing solidarity nor friendship ties. Instead, what Tomé recovers is something lived through, forged at the core of colonial relations, mediated and reified by capital forces. That artificial experience can be identified, as noted previously, as the 'coloniality of power' of Brazilian society in which rich landowners selectively choose who should be paid or enslaved, and workers/ creditors who are forced to rely on their canniness to receive what they own and survive. Thus, the doctor triggers the type of memory that needs to be endured: the notion of marketable exchanges translated into short and immediate relations.

At the same time, as Ivo Barbieri proposes, Machado de Assis's construction of memory is related to his reading of the founding father of French clinical psychology, Théodule-Armand Ribot. The critic states that the narrator of 'O Lapso' borrows motifs and cases from Ribot's *Les Maladies de la Mémoire* (1881), a volume to be found in Machado's library. Barbieri focuses on Halma's case of the lady who did not recognise her husband, as inspired by one of Ribot's clinical examples of a man who mistook his wife for his mistress.⁶³⁹ However, for Barbieri, there is a parodical inversion. Instead of validating, the narrator dismisses and mocks the fetishistic reception of scientific-philosophical discourses of the period:

⁶³⁶ Karyn Ball, 'In Search of Lost Community: The literary image between 'Proust' and 'Baudelaire' in Walter Benjamin's Modernisation Lament', *Humanities*, 4(2015) 149–189 (p. 154).

⁶³⁷ Ball, p. 172.

⁶³⁸ Ball, p. 173.

⁶³⁹ Barbieri, 'O Lapso', p. 343.

Enquanto a exposição do psicólogo apresenta-se como a gravidade de quem pretende ter alcançado uma nova verdade científica e, para enunciá-la, necessita elaborar um discurso coeso e convincente, a narrativa do ficcionalista desmascara, sob a aparência de falsa seriedade, a inconsistência da construção monolítica e presunçosa.⁶⁴⁰

Barbieri suggests that Jeremias's diagnosis is permeated by a satirical emulation of Ribot's studies once the narrator uses the example of the doctor to criticise the 'fetishistic' feelings of intellectuals towards the scientific-philosophical discourses of the period.⁶⁴¹ The use of 'fetish' to characterise science is the same word the narrator of the story uses to describe the astonishment of the women who witness the doctor's cure: 'Parece coisa de feitiçaria'. The term brings us back to the concept of collective experience since it recaptures a sense of "historical belonging", which is counterposed with "colonial enterprise". The etymology of 'fetish' comes from the Portuguese 'feitiço' and was first employed in the sixteenth century by Portuguese sailors to characterise the religious charms and amulets carried by local populations of the Guinea coast of Africa.⁶⁴² A 'fetish' or 'feitiço' is a 'material object regarded with awe as having mysterious powers or representing a deity that may be worshipped through it'.⁶⁴³ Fetishism, therefore, rests on a shared set of beliefs and values such as those present in religion. Considering this in relation to 'O Lapso', the idea of a science which restores a 'sick' man's memory and his ability to pay for the services he requests is akin to miracles and magic. Furthermore, the story ends with the doctor being canonised but never monetarily rewarded for his services. This approximation of medicine to supernatural, fantastic events and religious stories goes back to the concept of memory as a re-signification and readaptation of past experiences related to a collective sense of shared values, but that the only collective experiences that seem to pertain in this story are ones that are tied up in a colonial history. In 'O Lapso', what is communal is the (hi)story of colonial enterprises, exploration and commerce. From this point of view, Tomé, the creditors-workers and those who witnessed the cure performed by Jeremias belong to a similar context in which the scientific 'powers' of doctors – although not fully understood – are nonetheless appreciated to some extent, even if only with a symbolic payment in the form of a religious title.

'O Lapso's' dénouement sheds light on the connection between science, religion and the market that preserves the laws of capital. While Halma, with his preference for measures

⁶⁴⁰ Barbieri, 'O Lapso', p. 343.

⁶⁴¹ Barbieri, 'O Lapso', p. 345.

⁶⁴² Etymology dictionary <<https://www.etymonline.com/search?q=fetish>> [Accessed 3 May 2021].

⁶⁴³ Etymology dictionary <<https://www.etymonline.com/search?q=fetish>> [Accessed 3 May 2021].

and numbers, can solve a social problem by endorsing the established order, the church is an agent in perpetuating its dynamics since it is the institution that rewards the doctor. The initial quotation by Jeremiah seems to connect two symbolic powers which need ‘prophets’ to maintain their legitimacy. The doctor and the prophet are psycho-symbolically similar: devoted to their mission, single, sentimental and self-reflective about their role. While the biblical Jeremiah preserved traditional religion, Jeremias Halma secures the capitalist and imperial order; neither, however, receives any acknowledgement in return. The narrator concomitantly caricatures the profession of medicine as a noble vocation. While Halma successfully cures Tomé and alleviates the social burden of his debts, the doctor is gullible for not understanding the social dynamics of colonial Brazil, which divided the rich and the poor, forcing the latter to rely on canniness to survive. As a doctor, Jeremias is emotional and knowledgeable but, socially, he is naïve and easily deceived, contrary to the grain of a materialistic culture that praised the survival of the fittest or the most resourceful.

Tomé, in contrast, serves as miraculous proof that medicine can intervene in the social order and improve the situation; after all, he paid his creditors. However, how long would it last? What kind of improvement would it bring and for whom? These questions seem to be left open mainly because the narrator, with his forgetful and fragmented (or even ‘lapsed’) voice, cannot make long and enduring connections: the humorous intertextual patchwork of citations, combined with a fragmented narrative presentation, attest to the impossibility of a ‘longue durée’. What are enduring and persistent, however, are the laws of imperial capitalism, which reduce social relations to an intense game of competition and self-interest.

* * *

Through the symbolic figure of the Dutch doctor, the stories ‘Verba Testamentária’ and ‘O Lapso’ draw a distinctive parallel between ground-breaking discoveries and different forms of social control. The physicians’ apparent familiar and generous attitudes represent an emerging social medicine which, by forming part of an equally emerging capitalist structure, normalised the expected behaviours of the working class and safeguarded the social and economic power of a minoritarian elite. Through narrative strategies that mingle scientific language, anecdotal tales, fragmentation and humour, the narrators create avenues of exploration for the readers to interpret the then-current role of medicine in the decadent social structure of the Empire and developing Republic.

While 'Verba Testamentária' is less explicit in its capitalist associations, the story revolves around Nicolau's illnesses and his brother-in-law's attempts to control his fits of rage and envy. It stresses that future generations can inherit psychological disorders as they do fortunes. Nicolau becomes then an example of a colonial elite (he was born before Brazilian independence) that imprinted its (un)conscious traumas, i.e. inferiority complexes, entitlement and violent habits, on the social landscape of the Empire. The family doctor then serves as a superficial anointment – to use a term from 'O Segredo do Bonzo' – that temporarily relieves the situation but which cannot heal in-depth and long-standing social and psychological fractures. The brother-in-law's theories are then a 'feitiço' or a fetish that promotes more than they can effectively do; as the narrator finally stresses, it was the theory of the brother-in-law.

'O Lapso' is less subtle in its associations. It tackles the capitalist production at the core of commercial relations. Even though he is rich, Tomé does not internalise the concept of paying, naturalising notions of free labour and barter. The narrator, a lapsed voice as 'forgetful' as Tomé, tries to tell the story and make enduring connections, but achieves only an outline of superficial community relationships. Jeremias Halma is naively controlled by the creditors who do not pay for his services, and Tomé recovers a partial and external connection with his community. The canonisation of the doctor at the end calls attention to the guardians of social structures that need prophets to maintain their power and endurance, in this case those of Christianity and capitalism. In this sense, we may enquire whether Tomé will continue paying his creditors or what kind of strategies he will use to maintain his wealth.

With a generous dose of humour and scattered historical facts, Machado de Assis's narrators invite their readers to ponder the anecdotes they present. They seem to wish to activate the readers' 'long durée' by reflecting on what kind of ground the newly arrived institutions will anchor their theories and treatments to. Social medicine is therefore contextualised and problematised by the stories.

CONCLUSION: PLUS ULTRA

Having examined the theme of science in the short stories ‘O Alienista’ (1882), ‘A Sereníssima República’ (1882), ‘Idéias de Canário’ (1899), ‘O Segredo do Bonzo’ (1882), ‘Conto Alexandrino’ (1884), ‘Verba Testamentária’ (1882) and ‘O Lapso’ (1884), it is possible to conclude that Machado de Assis’s fiction did not conform to the romantic view of the ‘men of science’ and critically questioned modern state institutions (mental asylums, museums, prisons, etc.), as well government sponsored medical projects. Concentrating and focusing on the ways in which Machado uses scientific theories as literary and sociological devices, this research demonstrates that the irreconcilable demands and instructions of the double-bind reason and unreason guides the short stories’ narrators and allows them to create an ethically committed poetics of unreason, which voices and empowers marginalised groups and women. Such a poetics offers new avenues for the study of Machado de Assis’s oeuvre and opens it its scope for questions of race, gender, class and nationality. On a formal dimension, the thesis evinces that the author’s narrators contradictorily intermingle emerging forms of discourses, such as academic papers, scientific reports, amongst others, with traditional short fiction styles, such as fables and parables. This discursive clash serves the purpose of laying bare in the open the contradictions of Brazilian society, which were the result of a progressive and enlightened cultural superstructure and an anachronistic slave-owning economic base. In this way, the formal dimension of Machado’s stories is not dissociated from its social and economic concerns, but rather an amalgamation of both, which results in a ‘scientific method’, one which approaches science, and its advancement promises with caution, irony, temporal displacements and estrangement.

As stated in the introduction, the aims of this thesis were: the examination of the double bind reason and unreason in Machado’s stories about science; the understanding of how the discursive linearity of nineteenth-century narratives is broken with fantastic and uncanny elements; and how the author’s stories foreshadow a Brazilian post-modernism, sceptical of metanarratives of progress and advancement. One way of revisiting and casting a different light on these aims is through a 1939 quote by the Brazilian modernist poet Mário de Andrade, who argues that Machado, throughout his life, fought ‘victorious’ battles with himself:

Assim, vitorioso na vida, ele ainda o foi mais prodigiosamente no combate que, na obra, travou consigo mesmo. Venceu as próprias origens, venceu a língua, venceu as tendências gerais da nacionalidade, venceu o mestiço. É certo que, para tantas

vitórias, ele traiu bastante a sua e a nossa realidade. Foi antimulato, no conceito que então se fazia de mulatismo. Foi intelectualmente o antiproletário, no sentido em que principalmente hoje concebemos o intelectual. Uma ausência de si mesmo, um meticuloso ocultamento de tudo quanto podia ocultar conscientemente. E na vitória contra isso tudo, Machado de Assis se fez o mais perfeito exemplo de ‘arianização’ e de civilização da nossa parte. Na língua. No estilo.⁶⁴⁴

His affirmation contains one major misconception about Machado de Assis that this thesis strongly refutes: that Machado’s work was so utterly dissociated from Brazilian reality (and race) that he succeeded in somehow ‘aryanising’ the Brazilian language and style. By dissecting Mário de Andrade’s quote, we see that this misconception can be further subdivided into four fallacious ‘triumphs’: over 1) his origins (‘as origens’), 2) his language (‘a língua’), 3) the general tendencies of his nationality (‘as tendências gerais da nacionalidade’) and finally 4) his ‘mixed-race’ (‘o mestiço’). Such subdivisions imply that Machado’s work is a victorious copy – or perhaps an imported fallacy – that teeters on the verge of an artificial universalism, denying the intricacies of Brazilian history. Indeed, throughout the twentieth century, such a reading was endorsed by literary critics such as Harold Bloom, who argued that Machado was a ‘miracle’ and that his work demonstrated the ‘autonomy of literary genius in regard to time and place, politics and religion’.⁶⁴⁵ From a different perspective, the historian Lilia Schwarcz argued that Brazilian historical dilemmas were a matter of ‘personal proximity and literary distance’⁶⁴⁶ for Machado. However, such views were and still are refused by many critics,⁶⁴⁷ including Roberto Schwarz who contends that Machado’s works:

Reciclavam uma gama erudita e requintada de recursos pré-realistas, em desobediência aberta ao senso oitocentista da realidade e a seu objetivismo(...) Não obstante, e ao contrário do que fariam supor as quebras de regra, o espírito era incisivamente realista, compenetrado tanto da lógica implacável do social, como da tarefa de lhe captar a feição brasileira. E era também pós-realista, interessado em deixar mal a verossimilhança da ordem burguesa, cujo avesso inconfessado ou inconsciente abria à visitação, em sintonia com as posições modernas e desmascaradoras do fim-de-século.⁶⁴⁸

⁶⁴⁴ Mário de Andrade, ‘Machado de Assis, 1939’, *Escritor por escritor: Machado de Assis segundo seus pares 1908-1939*, org by Hélio de Seixas Guimarães & Leda Lebensztayn (São Paulo: Imprensa Oficial do Estado de São Paulo, 2019), pp. 293-312 (p. 307).

⁶⁴⁵ Bloom, pp. 348-351.

⁶⁴⁶ L. Schwarcz, ‘Machado de Assis: Creator and Character in a Troubled Scene’, *Emerging Dialogues on Machado de Assis*, pp. 13-21 (p. 17).

⁶⁴⁷ See Duarte, Eduardo De Assis, *Machado de Assis Afrodescendente* (Rio de Janeiro: Malê, 2020); Fernando Sousa de Rocha, “‘Father versus Mother’: Slavery and its Apparatuses” (pp. 91-104) and M Elizabeth Ginway, ‘Machado’s Tales of the Fantastic: Allegoric and the Macabre’ (pp. 211-222) in Aidoo, Lamonte & Silva, *Emerging Dialogues on Machado de Assis*, New York: Palgrave, 2016.

⁶⁴⁸ Schwarz, *Um Mestre*, pp. 249, 250.

Aligned with Schwarz and his literary-historical perspective, this thesis's examination of a selection of Machado's short stories has shown that it is precisely Machado's origins, language, nationality and mixed-race that bring him close not only to a particular cultural, literary and historical moment in Brazilian (and in many respects Latin American) but also to an ethically committed poetics, one which questions a deeply held tenet of late nineteenth-century modernist society – that science and rationality will inevitably lead us to a better, enlightened, sensible and unproblematic future.

It is worth reconsidering the preceding chapters of this study in terms of their critical stance towards Andrade's alleged four 'victories'. For example, the analysis of 'O Alienista' in Chapter One implicitly challenges Andrade's view that Machado is somehow victorious over the Portuguese language. A close reading of the story has argued that the narrator effectively enlarges the scope of narrative possibilities by intermingling traditional Brazilian narratives with scientific philosophies and literary references. Using Quixotic overtones, the author reinstates and displaces the *Tradição de La Mancha* and re-signifies categories of thought by deploying a highly allegorical language that challenges the taxonomic hierarchies of positivism. Symbolically relocating nineteenth-century scientific debates to the early colonial period, Machado also tackles 'national' projects of progress. As a revealing and poignant metaphor for Brazilian intellectuals of the 1890s, Bacamarte, metaphorically 'mounted' on a horse that stands for ancient forms of social organisation, slavery and patriarchalism, strives to reach a golden era of order and progress. Ignoring fundamental economic and political contradictions, Brazil's intelligentsia – with their newly-imported scientific theories – only succeeded in continuing to reproduce colonial prejudices and divisions.

Similarly, the analysis of 'A Sereníssima República' and 'Idéias de Canário' in Chapter Two negates the misconception that Machado overcomes his origins. A careful examination of the stories has demonstrated how the narrators scrutinise Brazilian colonial processes by creating, once more, a hybrid language that mixes fables with academia. Through a bold metaphor comparing the Brazilian people to the mythical Arachne and her Republic of spiders who obey their discoverer and master (Vargas), Machado critiques the pseudo-democratic electoral reforms of the period to critically engage with the political changes that the country was then undergoing. The conclusion, with the spider-philosopher Erasmus calling on his peers to continue weaving their textual webs, goes against Andrade's assertion of Machado's anti-proletarian ('antiproletário') tendency. However, instead of a

conservative royalist or patristic allegory, Vargas retreats from the narrative and proposes a proto-revolutionary or at least collectivist call of action: together, the spiders should 'weave' a solution to the political problems. Similarly, the canary of 'Idéias de Canário' does not deny its 'Brazilian' roots. Instead, it evokes an earlier age of museums and academic research in which the Romantic, nationalist idealisation of Brazil, with its exotic flora and fauna, is recovered and presented in extravagant exhibitions. By inserting the irrational conceit of a talking bird into the story, the narrator proposes that scientific theories do not follow a linear, monoglossic line. The bird metaphor suggests instead that the putatively neutral scientific discourse is concomitantly subject to social and political contingencies.

The view of Machado as an 'anti-mestiço' is strongly refuted by the close readings of 'O Segredo do Bonzo' and 'Conto Alexandrino' in Chapter Three. The analysis has shown that both narrators not only create a kaleidoscopic reflection of racial theories but also outline the hypothetical social effects of such ideas. By playing with the multiple meanings of the word 'Bonzo', the author ponders the rise and triumph of the empirical methods of the academically-trained doctor in contrast to the 'curandeiros' or traditional healers. Without redeeming either 'healing' figure, the narrator proposes that all such healers seek power and social control through language and surgery. Both are easily identified in memorable aphorisms and the highly suggestive nose removal procedures that recall phrenology and its supposed hierarchy of races. Through 'Conto Alexandrino', 'mestiço' theories are put to an extreme test with the experimentation on prisoners in Alexandria. The exotic location of such narratives again distances the readers from the nineteenth century but also brings them back to their social and literary environments through references to the rise of criminology as an area of study, and corporal punishment – socially observed and literarily portrayed in widely read novels. The misconception of the 'mestiço' as a 'natural' criminal is debunked with the critical depiction of power-driven sadistic scientists and doctors.

Finally, to counter the last of Andrade's claims, the idea that Machado defeated within his writing the general tendencies of 'nationality' can be found in Chapter Four with an examination of 'Verba Testamentária' and 'O Lapso'. Both stories are set in the eighteenth century and follow historical changes in Brazil that not only maintained but further embedded the power of the colonial elites. While 'Verba Testamentaria' represents social problems via the envious dis-ease of Nicolau, 'O Lapso' reworks labour relations in relation to Tomé's memory lapses. Most importantly, from the perspective of nationality, both stories present the symbolic figure of the familiar and compassionate Dutch doctor

who tries to relieve patients' maladies by controlling their environment or didactically changing their behaviours and practices. Allying medicine to the emergence of capitalism, the analysis of the stories demonstrates that Machado offers the reader a survey of social medicine and how it created normalised expectations for familiar and work relationships while also maintaining the economic and political power of a minority elite. Rather than effacing his nationality, Machado instead gives Brazilian history believable narrative faces, developing a sophisticated hypothesis to explain the motives behind imported discourses of power.

Although Mário de Andrade professes to admire Machado's work in saying 'damolhes o nosso culto. O nosso orgulho também',⁶⁴⁹ as a modernist writer who dedicated his life to the rediscovery of Brazilian linguistic varieties, narratives, music and traditions, he reductively equates Machado de Assis's oeuvre to an earlier and presumably apolitical European tradition. However, Andrade's critique of Machado still buys into a rather simplistic post-colonial binary view of culture, in which what is labelled as 'Luso-European' is deemed to be dominating and coercive, while what is 'national' is, in contrast, deemed to be authentic and praiseworthy. Reading these stories through Andrade's nationalistic lenses, the apparent absence of 'Brazilian' regional dialects and historical themes can indeed give this impression. Nevertheless, the analysis of Machado's stories through the lenses of science demonstrates that the Luso-European/Brazilian dichotomy is less false than it is dialogic. As discussed throughout this thesis, the complexity of Brazilian cultural, intellectual and historical relations is dramatised through encounters between scientists, doctors, politicians, clerics, the subaltern classes and talking animals. This web of connections suggests a 'coloniality of power' in which ontologies and epistemologies – not the author, as Andrade would say – are in a constant dialogue, if not outright battle, with themselves.

Far from being a conservative torchbearer for a pan-European sensibility, Machado becomes more radically *post-modern*, i.e., suspicious of Western and Eurocentric metanarratives, than the modernist Andrade could have imagined in 1939. It is possible to interpret Machado's literary consciousness as stemming from a foreshadowing of the inextricable link between colonialism and coloniality, as articulated by the critic Aníbal Quijano:

Colonialidad es un concepto diferente, aunque vinculado con el concepto de colonialismo. Este ultimo se refiere estrictamente a una estructura de dominación y

⁶⁴⁹ Andrade, p. 511.

explotación, donde el control de la autoridad política, de los recursos de producción y del trabajo de una población determinada lo detenta otra de diferente identidad, y cuyas sedes centrales estan, además, en otra jurisdicción territorial. Pero no siempre, ni necesariamente, implica relaciones racistas de poder. El *colonialismo* es, obviamente, más antiguo, en tanto que la *colonialidad* ha probado ser, en los últimos 500 años, más profunda y duradera que el colonialismo. Pero sin duda fue engendrada dentro de esté y, más aún, sin el no habría podido ser impuesta en la intersubjetividad del mundo, de modo tan enraizado y prolongado.⁶⁵⁰

As analysed in this thesis, Machado de Assis's short stories exemplify Quijano's 'coloniality of power' in Brazil in the nineteenth century. 'O Alienista', 'A Sereníssima República', 'Idéias de Canário', 'O Segredo do Bonzo', 'Conto Alexandrino', 'Verba Testamentária' and 'O Lapso' demonstrate, from different angles, how seemingly (*post*-) colonial scientific institutions become outlets of dispossession and control because they are themselves part of a wider network of a still-intact colonial power. Refusing to endorse the progressive ideological project of the Brazilian elites, Machado denounces or at least critiques the scope of their supposed progressive aims. Instead of bringing enlightenment and progress to Brazil, science – and the institutions responsible for its dissemination – ostracised the Afro-Brazilian and indigenous populations as well as the poor working classes and women in general. This thesis has shown that, through humour and absurd situations, Machado distorts spatial and temporal aspects of the short stories and, in so doing, transposes the always-present social tensions. Indeed, this transposition is also closely connected to a narrative preference for irrational overtones and fable-like characters, one which evoke the double-bind madness and science, as a literary strategy that accepts social contradictions and transforms them into raw material for cultural production. Through displacements of time, absurd situations, uncanny elements and irony, Machado elicits a constant response of the reader, which must read his plots through metaphorical, allegorical and even irrational lenses.

Another relevant aspect is how the linearity of realist and naturalist narratives – to which Andrade would rightly object as an unmodern feature of nineteenth-century literature – is transformed by Machado into fragmented quotes from the past and present. The supposed realist descriptions to which Andrade objects constitute a striking modernist patchwork, with scattered literary citations and memorable phrases. Machado's narrators, breaking with a supposedly realist, factual, positivistic and evolutionary continuum of

⁶⁵⁰ Aníbal Quijano, 'Colonialidad del Poder y Clasificación Social', *El giro decolonial: Reflexiones para una diversidad epistémica más allá del capitalismo global*, org by Santiago Castro-Gómez & Ramón Grosfoguel (Bogotá Siglo del Hombre Editores, 2007), p. 93.

history, become (*post*-)modern as they challenge all encompassing meta-narratives with chaos-infused plots and ideas.

While displacing realism and linearity, Machado fundamentally challenges the notion of time, both in fiction and in reality. Regarding coloniality and time, Walter Mignolo argues:

Whatever the conceptualisation of ‘time’ in the social sciences today, the humanities, or the natural sciences, today it is caught and woven into the imaginary of the modern/colonial world-system. [...] time itself is a central concept of that imaginary. [...] I use ‘imaginary’ to identify the social and geopolitical dimensions of modernity/coloniality; both the coloniality of power (e.g., strategies of colonisation implied in modernity) producing the colonial difference and the different forms of adaptation, resistance, subaltern alternatives, forced by coloniality of power.⁶⁵¹

Following the idea of ‘time’ concerning the ‘imaginary’, which undoubtedly includes art and literature, defined by Mignolo, it is possible to read Machado’s scepticism as foreshadowing the contradictions of ‘modernity’. As discussed in the introduction to and analysis of ‘O Alienista’, modernity and progress were tightly linked in nineteenth-century Brazil to positivism, theories of racial ‘whitening’ via eugenics and the advancement of globalised capitalism. These epistemological paradigms, as detailed in subsequent chapters of the thesis which discussed empiricism, racial theories, social medicine and its links to capitalism, were far from creating material, scientific or moral improvements. Instead, they continued reproducing inequalities and segregation, offering little improvement since they were themselves part of the colonising project. So enduring was their legacy that their effects are still seen today in Brazilian society. In a formal level, by opening its fiction to the fragmentary, to the patch-work-like structure, the uncanny and fantastic, Machado is offering his readers the chance of experiencing a new narrative form, one which is not utterly unified and coherent, as the realist and naturalist novels of the time, but one rather that revolves around chaotic structures that randomly repeats motifs, skips themes and does not provide a clear and objective, or rather, deterministic conclusion. In other words, Machado offers a dynamic – and most likely closer to the true scientific method, which is in a constant flux of transformation, reformulation, reassessment and re-adaptation.

One of the many Brazilian thinkers critical of the idea of a linear and unified ‘progress’ is the acclaimed indigenous philosopher Ailton Krenak. In his essay, ‘A vida não é útil’, he reframes the critique once developed by Machado by describing Western temporality as a ‘flecha’ or arrow:

⁶⁵¹ Mignolo, p. 152.

Acredito que nossa ideia de tempo, nossa maneira de contá-lo e de enxergá-lo como uma flecha — sempre indo para algum lugar —, está na base do nosso engano, na origem de nosso descolamento da vida.⁶⁵²

The metaphor of the ‘flecha’ can be developed further – not only does it describe the general positivist concept of the unilinear drive forwards, it can also interweave indigenous and Western ideas of time that both encourage and resist change. For instance, ‘flechas’ can be the notated arrows employed in equations to signify the transformation of chemical processes or the literal ‘flechas’ used by indigenous warriors to hunt and defend their territory against Western incursions and domination. Krenak denounces this vision of time as creating a utilitarian and unilinear view of progress which he then links to the depersonalised forces of capitalism that detach humans from life by alienating them from their communities, surroundings and nature:

O capitalismo quer nos vender até a ideia de que nós podemos reproduzir a vida. Que você pode inclusive reproduzir a natureza. A gente acaba com tudo e depois faz outro, a gente acaba com a água doce e depois ganha um dinheirão dessalinizando o mar, e, se não for suficiente para todo mundo, a gente elimina uma parte da humanidade e deixa só os consumidores.⁶⁵³

Krenak highlights a messianic-like faith in progress that uses science and technology as valuable instruments of consumption and reproduction – like the ‘Dutch’ doctors linked to medicine and capitalism. It is as if more science and technology could repair the problems they have created, whether in the form of genocide or ecological disasters, creating a vicious cycle which gives an illusion of forward progress. In contrast to this instrumentalist view of advancement, Krenak proposes a collective and plural structure of time:

... a criação do mundo não foi um evento como o Big Bang, mas é algo que acontece a cada momento, aqui e agora. O próprio evento geofísico da existência do planeta no cosmos é um evento ativo (...) Nossos parentes Tukano, Desana, Baniwa contam histórias de um tempo antes do tempo. Essas narrativas, que são plurais, os maias e outros ameríndios também têm. São histórias de antes de este mundo existir e que, inclusive, aludem à sua duração. A proximidade com essas narrativas expande muito nosso sentido de ser, nos tira o medo e também o preconceito contra os outros seres. Os outros seres são junto conosco, e a recriação do mundo é um evento possível o tempo inteiro.⁶⁵⁴

⁶⁵² Ailton Krenak, *A vida não é útil* (São Paulo: Companhia das Letras, 2020). Chapter ‘A Máquina de Fazer coisas’, paragraph 18. EPUB file.

⁶⁵³ Krenak, Chapter ‘A Máquina de Fazer Coisas’, paragraph 14. EPUB file.

⁶⁵⁴ Krenak, ‘A Máquina de Fazer coisas’, paragraph 17. EPUB file.

Krenak offers a web-like structure of time, facts, cultures and peoples in which events and narratives are constantly reproduced and recreated at the same time. This notion is similar to that of time and formal structures presented by the narrators of the short stories selected for this thesis. In 'O Alienista', historical events, settings, literary quotes and revolutionary acts are constantly revisited, transformed, inverted and rechronologised. In 'A Sereníssima República', the colonisation of the Americas is recreated in Vargas's community of spiders. In 'Idéias de Canário', the canary and Macedo confront different 'scientific' ways of reading the world. In 'O Segredo do Bonzo', ancient Asia is brought to contemporary Brazil; in 'Conto Alexandrino', Alexandrian prisoners such as the laboratory guinea pigs and the (ex-)enslaved people are abused. In 'Verba Testamentária', Brazilian historical traumas and hierarchies take the form of fantastic illness and, in 'O Lapso', memory and collective imagination lose their power with unequal commercial relations. Even the everlasting presence of animals alludes to another epistemology, one that admits that flora and fauna are not there to be exotically explored but are part of us or, as Krenak beautifully puts it, that 'os outros seres são junto conosco'.⁶⁵⁵ In other words, the stories seem to bring us back to an ontological Amerindian view that there is no hierarchy of historical times, races or instructions, a view which opens the readers' imagination to other realities and ways of living and experiencing the world.

The radical nature of the (i)rrationality, temporality and formal patchworks proposed by Machado de Assis's short stories is fundamentally different from the 'brasilianidade' that easily identifies native characters as 'other' or 'exotic', or even as underdeveloped or poorer. Machado's short stories show the reader, like Krenak, that Brazilian narratives are plural, and that (*hi*-)stories happen cyclically and simultaneously. His work proposes that we constantly investigate ways of reading and exploring the world and question whether they are inclusive or exclusive. Based on the work of Machado de Assis, the 'plus ultra' or exploration 'further beyond' this thesis should be the exploration of indigenous and Afro-Brazilian narratives and their ways of interpreting progress and science.

⁶⁵⁵ Krenak, 'A Máquina de Fazer coisas', paragraph 18. EPUB file.

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