

The Limits of an Acceptable Deviation

A creative-led study of non-binary gender performances in gender-fluid science fiction

&

NOTHING LIKE THE SUN

A creative response

by

Caitlin Roper

Thesis Submitted to Flinders University for the degree of Doctor of Philosophy

College of Humanities, Arts and Social Sciences 23rd July 2019

Contents

Abstract	4
Declaration	6
Acknowledgements	7
Dedication	
Introduction	0
Introduction 1. Key Literature and Theoretical Perspective	
1.1 The Sex/Gender Distinction	
1.2 The Feminist Call-to-Arms	
1.3 LGBTQI Narratives	. 11
1.4 The Excluded 'Other'	
2. Judith Butler's Theory of Gender Performativity	. 14
2.1 'Performative Acts and Gender Constitution An Essay in Phenomenology and Feminist Theory' (Butler, 1988)	15
2.2 Gender Trouble: Feminism and the Subversion of Identity (Butler, 1990)	
2.3 Bodies That Matter: On the Discursive Limits of "Sex" (Butler, 1993)	
2.4 Interviews with Butler; Revisiting Gender Trouble (1994 and 2014)	
2.5 Academic Responses to Gender Performativity2.6 Gender Performativity, 'The Limits of an Acceptable Deviation' and <i>Nothing like</i>	
the Sun	
3. Variant Gender Performances	
4. Science Fiction Case Studies	. 33
5. Creative Research Method	. 39
6. Rationale for Text Selection	. 43
6.1 Ursula Le Guin's The Left Hand of Darkness (1969)	. 49
6.2 Ann Leckie's Ancillary Justice (2013)	. 50
6.3 John Scalzi's Lock In (2014)	
6.4 Acceptable Deviations and <i>Nothing like the Sun</i> (2018)7. Significance of Research	
8. Conclusion	
8. Conclusion	. 39
Chapter One: Societal Androgyny in Ursula Le Guin's The Left Hand of	
Darkness (1969)	64
Introduction	. 64
Note on The Left Hand of Darkness and Ursula Le Guin	
The Left Hand of Darkness Synopsis	
Limitations of Language The Experimental Nature of Science Fiction	
1. Debating Male Pronouns as Neutral: The All-Male Matriarchy	
1.1 Contrasting Formulations of Universal Gender	
1.1 Contrasting Formulations of Oniversal Gender 1.2 Character, Reader and Author Subjectivities	
2. 'Othering' Femininity	
2.1 Perceived Feminine Signifiers	. 76
2.2 Gendered Reading	. 78
2.3 The Third Space Reversal	
3. Acceptance	. 81

3.1 Subjective Conceptions of Maleness/Femaleness	81
3.2 Real Men, Not-Real Men, Real Women and Not-Real Women	82
3.3 Satisfactory Representation of Gender Variance	85
4. Exclusions within The Left Hand of Darkness	86
Chapter Two: Third-Person Gender Ambiguity in Ann Leckie's Ancilla	ry Justice
(2013)	
Ancillary Justice Synopsis	
Challenging Maleness as Universal/Neutral	
Leckie and Gender – Reversed, Ambiguous and Erased	
Note on the Imperial Radch trilogy and selection of text	
1. Gender Reversal	
1.1 Performative Signifiers of Gender	
1.3 The Sex/Gender Distinction	
1.4 Issues in Leckie's Gender Reversal	
2. Gender Ambiguity	100
2.1 Misgendering Signifiers	100
2.2 Alternative Societal Gender Structures	
2.3 Belying the Binary: The Undeniable Discord of Gender Ambiguity	
3. Gender Erasure	
3.1 Erasure Through an AI's Perception	
3.2 Erasure to Combat Maleness as the Unmarked Sign	
4. Gender Fluidity	110
4.1 Arbitrary Signifiers as a Basis for Gender Assumption	110
4.1 Arouary Signifiers as a Basis for Gender Assumption	
4.2 The Result of Onrecognisable Gender Fertormances	112
Chapter Three: First-Person Gender Ambiguity in John Scalzi's Lock In	(3014)
Chapter Three. Thist-reison Gender Annoigury in John Scalli S Lock I	n (2014)
Lock In Synopsis	
	118
Lock In Synopsis	118
Lock In Synopsis First-Person Gender Ambiguity 1. Maleness, Men and Lock In	118 118 119 121
Lock In Synopsis First-Person Gender Ambiguity 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender	118 118 119 121
 Lock In Synopsis First-Person Gender Ambiguity 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender 1.2 The Privilege Granted to Maleness in Lock In 	118 118 119 121 121 122
Lock In Synopsis First-Person Gender Ambiguity 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender	118 118 119 121 121 122
 Lock In Synopsis	118 118 119 121 121 122 123
 Lock In Synopsis	118 119 121 121 122 123 123
 Lock In Synopsis	118 118 119 121 121 122 123 123 125
 Lock In Synopsis	118 119 121 121 122 123 123 125 126
 Lock In Synopsis	118 118 119 121 121 122 123 123 125 126 127
 Lock In Synopsis	118 119 121 121 122 123 123 125 126 127
 Lock In Synopsis	118 118 119 121 121 122 123 125 126 127 128
 Lock In Synopsis	118 118 119 121 121 122 123 125 126 127 128
 Lock In Synopsis	118 118 119 121 121 122 123 123 125 126 127 128 130
 Lock In Synopsis	118 118 119 121 121 122 123 123 125 126 127 128 130 131
 Lock In Synopsis	118 118 119 121 122 123 123 125 126 127 128 130 131 133
 Lock In Synopsis	118 118 119 121 122 123 123 125 126 127 128 130 131 133
 Lock In Synopsis	118 118 119 121 121 122 123 123 123 123 123 123 123 123 124 125 126 127 128 130 131 133 133 133 136
Lock In Synopsis First-Person Gender Ambiguity 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender 1.2 The Privilege Granted to Maleness in Lock In 2. The Metaphor for 'Otherness' 2.1 The Intersection of Minority Identities – Gender and Disability 2.2 The Name and Depth of 'Otherness' 2.3 Unsexing the 'Other' 3. The Intersection of Gender, Bodies and Science Fiction 3.1 Transgressing Gender Norms 3.2 Signifying and Reinforcing the Gender Binary 4. Exclusions Within Lock In 4.1 Learning from Lock In Note on Nothing like the Sun Nothing like the Sun Synopsis Gender Performances of Nothing like the Sun	118 118 119 121 122 123 123 123 125 126 127 128 130 131 133 136 137
 Lock In Synopsis First-Person Gender Ambiguity. 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender. 1.2 The Privilege Granted to Maleness in Lock In 2. The Metaphor for 'Otherness' 2.1 The Intersection of Minority Identities – Gender and Disability. 2.2 The Name and Depth of 'Otherness' 2.3 Unsexing the 'Other'. 3. The Intersection of Gender, Bodies and Science Fiction 3.1 Transgressing Gender Norms 3.2 Signifying and Reinforcing the Gender Binary 4. Exclusions Within Lock In 4.1 Learning from Lock In Note on Nothing like the Sun Nothing like the Sun Synopsis. Gender Performances of Nothing like the Sun The Contribution of Nothing like the Sun 	118 118 119 121 122 123 123 123 125 126 127 128 130 131 133 136
Lock In Synopsis First-Person Gender Ambiguity 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender 1.2 The Privilege Granted to Maleness in Lock In 2. The Metaphor for 'Otherness' 2.1 The Intersection of Minority Identities – Gender and Disability 2.2 The Name and Depth of 'Otherness' 2.3 Unsexing the 'Other' 3. The Intersection of Gender, Bodies and Science Fiction 3.1 Transgressing Gender Norms 3.2 Signifying and Reinforcing the Gender Binary 4. Exclusions Within Lock In 4.1 Learning from Lock In Note on Nothing like the Sun Nothing like the Sun Synopsis Gender Performances of Nothing like the Sun	118 118 119 121 122 123 123 123 125 126 127 128 130 131 133 136
 Lock In Synopsis First-Person Gender Ambiguity. 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender. 1.2 The Privilege Granted to Maleness in Lock In 2. The Metaphor for 'Otherness' 2.1 The Intersection of Minority Identities – Gender and Disability. 2.2 The Name and Depth of 'Otherness' 2.3 Unsexing the 'Other'. 3. The Intersection of Gender, Bodies and Science Fiction 3.1 Transgressing Gender Norms 3.2 Signifying and Reinforcing the Gender Binary 4. Exclusions Within Lock In 4.1 Learning from Lock In Note on Nothing like the Sun Nothing like the Sun Synopsis. Gender Performances of Nothing like the Sun The Contribution of Nothing like the Sun 	118 118 119 121 121 122 123 123 123 123 123 123 123 123 124 125 126 127 128 130 131 133 133 136 137 139 144
Lock In Synopsis First-Person Gender Ambiguity. 1. Maleness, Men and Lock In 1.1 The Relationship between Author and Gender 1.2 The Privilege Granted to Maleness in Lock In 2. The Metaphor for 'Otherness' 2.1 The Intersection of Minority Identities – Gender and Disability. 2.2 The Name and Depth of 'Otherness' 2.3 Unsexing the 'Other' 3. The Intersection of Gender, Bodies and Science Fiction 3.1 Transgressing Gender Norms 3.2 Signifying and Reinforcing the Gender Binary 4. Exclusions Within Lock In 4.1 Learning from Lock In Vote on Nothing like the Sun Note on Nothing like the Sun Nothing like the Sun Synopsis Gender Performances of Nothing like the Sun The Contribution of Nothing like the Sun I. Questioning, Modifying and Agitating the Gender Binary	118 118 119 121 122 123 123 123 125 126 127 128 130 131 133 136 137 139 144

1.3 Agitating the Gender Binary	
2. Gender Reversal, Ambiguity and Erasure	
2.1 Artemis and Diana	
2.2 The Narrator	
3. The Writing/Researching Experience	
3.1 The Narrator	
3.2 Diana and Artemis	
3.3 Orion	
3.4 Sex and Sexuality	
3.5 Issues of Nothing like the Sun	
4. Future Study	
4.1 Further Research	
4.2 Further Reading	
Reference List	169
NOTHING LIKE THE SUN	179

Abstract

This creative-led thesis examines representations of variant gender performances in Ursula Le Guinn's *The Left Hand of Darkness* (1969), Ann Leckie's *Ancillary Justice* (2013) and John Scalzi's *Lock In* (2014) through a foundation of the theoretical framework of Judith Butler's 1990 theory of gender performativity. This thesis activates a creative-led reconfiguration of that theory and actions those representations through the interplay of the artefact and exegesis. The exegesis researches these transforming representations and determines what performances continue to be excluded and then posits the creative thesis as the next development of gender variance in fiction by filling the gap perceived in the texts of Le Guin, Leckie and Scalzi. Fiction captures, configures, frames and transforms gender and can serve to transform our social perceptions. With the rise of social advocacy groups and transgender and gender fluid public figures, alongside the recent legalisation of samesex marriage within Australia, this current period offers a significant contextual frame to study the representations of gender variance.

By studying these texts, I examine through this doctoral research how the representations of variant gender in popular science fiction have evolved and then determined the limits of what constitutes an acceptable variant gender performance and thus the absences in this discourse that lie beyond those limits. The study of these texts has shown that female and feminine gender performances and the intersection of sex with gender variance are missing from popular gender variant science fiction; the creative thesis *Nothing like the Sun* seeks to contribute to the field of gender fluid science fiction by filling this gap. By filling this gap this thesis invites new research into bringing new representations of LGBTQI identities out of academic arcana and

into everyday culture to help combat the pervasive social and cultural suffering of non-binary individuals and to combat the policing of gender performances, be they binary or non-binary.

Key Words:

Judith Butler, gender performativity; creative-led research, creative thesis, creative artefact; Ursula Le Guin, *The Left Hand of Darkness*, Ann Leckie, *Ancillary Justice*, John Scalzi, *Lock In*; science fiction, representation, semiotics, deconstruction.

Declaration

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed:

Caitlin Roper

Date: 23/07/2019

Acknowledgements

My acknowledgements go first and foremost to my partner, Z. Thank you for your years of unwavering belief and for reading draft after draft after draft without even a single complaint. Z, you are nothing like the sun, you are better.

Thanks are also owed to my parents. Words cannot express my gratitude and so I will suffice with a simple 'thank you'. Look, Ma, I did it. Look, Dad, this one is for you.

To my supervisor Professor Tara Brabazon: thank you for guiding me without giving me the answers. Thank you for pushing me to do better, be better.

I would lastly like to acknowledge that I am a recipient of RTP support (fees offset) under the "Australian Government Research Training Program Scholarship."

Dedication

This creative thesis *Nothing like the Sun* is dedicated to the memory of Martin Burgess, a family friend and right-to-die advocate in my hometown of Darwin in the Northern Territory. Sometime after we left the N.T., Martin developed terminal rectal cancer and began lobbying for the return of Voluntary Euthanasia. This practice was briefly legal in Darwin from 1996-1997 but was indirectly overturned through the amendment to the *Northern Territory (Self-Government) Act 1978*. Martin, with the help of euthanasia expert Dr Philip Nitschke posted two videos to YouTube. One called 'Martin Burgess describes his life dying from rectal cancer' and another called 'Martin Burgess plea for Nembutal', which included his home address with his plea. In October 2014, Martin was found dead in his home after taking the euthanasia drug Nembutal, which was anonymously left at his home. The YouTube videos have been removed but can be found elsewhere online.

Introduction

1. Key Literature and Theoretical Perspective

1.1 The Sex/Gender Distinction

In gender fluid science fiction, authors challenge or reinforce gender norms while inviting the reader to conduct thought experiments on their own perceptions of masculinity and femininity. As such, this study necessitates a clear definition of gender and a clear assertion of the distinction between sex and gender. The World Health Organisation defines the category of 'sex' as 'male or female (biological sex)' and 'gender' as the 'socially constructed characteristics of women and men - such as norms, roles and relationships of and between groups of women and men. It varies from society to society and can be changed' (2018). This thesis asserts a distinction between sex and gender, however the common but false correlation of sex with gender perhaps precipitated what Yaszek (1997) referred to as the 'retreat to conventional sexual identities derived from biological narratives of reproduction' (p. 59). These biological narratives of reproduction are comprised of hegemonic masculinity and a strict adherence to the gender binary and encompass the overwhelming majority of texts. In contrast, this thesis is concerned with science fiction performances of gender that are intentionally androgynous, subversive or ambiguous. This correlates with Mehta and Dementieva's challenge of the early notions of masculine/feminine gender as congruent with male/female sex: 'using bipolar measurements of gender meant that a person could be feminine or masculine, but not both' (2017, p. 605). As such, 'gender' is used in this thesis to mean 'gender identity distinct from biological sex'. Joel (2016) asserts the distinction between sex and gender, explaining that;

Gender has several meanings (a social system, a set of psychological characteristics, a type of performance), each multilayered and probably un-measurable. For example, how can we measure the forces exerted on an individual by her/his gendered society? How can we measure one's gender characteristics when we already know that gender characteristics are not correlated and that each person has a unique mosaic of gender characteristics that cannot be aligned on a masculine-feminine continuum? (Joel, 2016, p. 343)

Joel's reference to the performance of gender summons Judith Butler's theory of gender performativity and the belief that masculine and feminine gender characteristics do not necessarily denote a male or female gender. This thesis is a creative-led exploration of Butler's theory, specifically studying gender performances through science fiction case studies; the first chapter of this thesis explores the concept of gender performativity and the challenges and revisions made since its introduction in Butler's 1990 text *Gender Trouble*.

1.2 The Feminist Call-to-Arms

This thesis was born from a network of practices of intersecting feminist literary theory and queer theory. Helene Cixous in 1976 saw the modern beginnings of feminist call-to-arms in writing and marked this moment theoretically. These beginnings argued that 'since these [literary] reflections are taking shape in an area just on the point of being discovered, they necessarily bear the mark of our time – a time during which the new breaks away from the old' (Cixous, 1976, pp. 875-893). Cixous' observation is a clear nod to the fact that the production of texts will always bear the mark of that from which they evolve; a study of gender performances will necessarily bear the mark of our current beliefs about possible gender identities. Haraway added the argument that 'movements for animal rights are not irrational denials of human uniqueness; they are a clear-sighted recognition of connection across the discredited breach of nature and culture' (1991, pp. 149-181). Similarly,

movements for LGBTQI (Lesbian, Gay, Bisexual, Trans, Queer/Questioning and Intersex) identities are not a denial of heterosexual or cisgender identities, they are a recognition of the need for culturally and socially relevant anti-stigma in the quest for equality. Recent evolutions in gender theory assert that 'if attachment to boxes and boundaries means attachment to categories and attachment to categories is about the construction and maintenance of differences and social inequalities, then our boxes and boundaries ultimately help to construct and maintain inequalities' (Lucal, 2008, pp. 519-536). Our network of practices, then, is a persisting call-to-arms in feminist writing to dismantle the boxes and boundaries of social inequalities; this thesis answers that call-to-arms through deconstructionism and semiotic analyses of the master narrative of gender and a new contribution to the narratives of LGBTQI identities through the creative artifact.

1.3 LGBTQI Narratives

The LGBTQI efforts of anti-stigma began with the trans memoir and now necessitate further cultural intersection: 'it may be that the traditional memoir's purpose, in "normalising" transition for a cisgender audience, is now less useful, socially, than finding new ways to tell stories that can express an infinite variety of gender positions, currently being explored via blogs and social networks' (Jacques, 2017, pp. 357-370). Jacques mentions social media, however, this keeps LGBTQI identities in the realms of life-writing but the value in normalising non-binary identities in the 'master narrative' of literature and the transgressive nature of science fiction cannot be ignored. Merrick offers science fiction as this new way of telling stories with the argument that 'SF remains an underutilized resource in thinking through some of the problematics of two-culture engagements, perhaps precisely because of its hybridized

positioning on the two-culture border' (2010, pp. 141-148). What makes this thesis relevant in 2018 is the network of practices which has seen the rise of the trans memoir and the shift of perceptions that first brought LGBTQI individuals into the fields of academic study and now sees those individuals into the realms of popular culture. 'Culture', in this instance, is used to mean television, cinema and fiction. As Foss, Domenico and Foss confirm, 'the binary has not disappeared in the revisionist gender stories told by pop culture, but it has been questioned, modified and expanded' (2012, p. 127) and it is this question, modification and expansion of gender performativity that this thesis explores and transforms through the creative artefact.

1.4 The Excluded 'Other'

The use of 'Other' in relation to gender was first the initial segregation between men as the 'Self 'and women as the Other, given that women were the 'castrated Other' (Cornell, 1996, pp. 185-197). The heterosexual, cismale viewpoint thus became the Normative insulated from discussion; as a result, 'we endlessly debate the meaning of Woman but not Man, homosexuality but not heterosexuality, blackness but never whiteness, transgender but never *normal* genders' (Wilchins, 2004, p. 41). Similarly, Yaszek (1997) alleged that 'our culture has become increasingly concerned with the representation of sexual identity in a technologized world. Typically, dominant Western thinking about heterosexual identity draws upon both anatomy and the "natural drive" toward reproduction' (p. 52). Yaszek's observation of an alleged natural heterosexuality is aligned with Cornell and Wilchin's categorization of heterosexuality and the masculine Self as the insular norm, relegating alternative sexualities and genders to the realm of the Other. As critical thought has evolved, women became recognised (if not necessarily treated equally) as the other half of the Normative, leaving gender performances that fall outside that binary to constitute the new Other. This new Other exists outside the 'false opposition' (Linstead & Pullen, 2006, pp. 1287-1310) of the gender binary and occupies a 'third space' (Bhabha, 2004, originally 1994). This 'third space' can be the marginal location where the oppressed plan their liberation or where the oppressed and the oppressor can come together (Bhabha, 2004) or it can be representative of and 'entifying' those third (or fourth, or Other) hybrid or in-between identities opposing patriarchy (Tamise, 2000, n. p.). Bhabha explains the value of exploring the Other and the third space: 'such assignations of social differences – where difference is neither One nor the Other but something else besides, in-between find their agency in a form of the "future" where the past is not originary, where the present is not simply transitory' (2004, p. 313). It is here that the intersection of science fiction thought experiments and third space theory become clear, especially with Bhabha's clear distinction that 'in-between the Ias-symbol and the I-as-sign, the articulations of difference - race, history, gender are never singular or binary' (2004, p. 335). This thesis uses the futuristic grounds provided by science fiction thought experiments to explore those spectrums and articulations of different gender performances to combat genderism.

The term 'genderism' is used 'to articulate instances of discrimination that are based on the discontinuities between the sex with which an individual identifies and how others, in a variety of spaces, read their sex' (Browne, 2004, pp. 331-346). This genderism is used 'to describe the hostile readings of gender ambiguous bodies' (Browne, 2004, pp. 331-346), bodies whose gender performance does not constitute an abiding binary performance. This thesis explores the position of the two normative halves of the gender binary in their position as the 'Normative' and 'Same' and nonbinary genders as 'Other.' This use of 'Other' is drawn first from Simone de Beauvoir's *The Second Sex* (1949), and, more recently, in part from Larbalestier (2002, p. 8), Bhabha (2004), and Pluretti, et al (2015), among many others.

The result of this study of gender performances in science fiction found a lack of women, femininity and the intersection of sex with gender variance; Pluretti seems to explain this lack;

Gender and sexuality provide a set of acceptable attributes and behaviors, masculine and feminine, heterosexual and homosexual, for men and women. However, cultural institutions have placed gender and sexuality in a hierarchy, favoring masculinity over femininity and heterosexuality over homosexuality. This marginalizes those with feminine or homosexual attributes, labeling them as the <u>Other</u>, [emphasis mine] while rewarding masculine and heterosexual traits as normative. (Pluretti, 2015 p. 1)

Pluretti's explanation of the privileging of abiding gender performances, maleness/masculinity and heterosexuality supports this thesis' findings of a lack of women/femininity and the intersection of sex with gender variance in popular depictions of gender fluid science fiction. Though science fiction is a genre of transgression, this thesis finds that those transgressions still cater to male/masculine gender performances and fail to posit gender variance as a site of sexual desirability.

2. Judith Butler's Theory of Gender Performativity

Judith Butler's theory of gender performativity is most associated with her 1990 text *Gender Trouble: Feminism and the Subversion of Identity*, however, early concepts of the theory exist in her prior works. This section of the exegesis tracks the development of the theory of gender performativity from its early model though to *Gender Trouble*, Butler's later clarifications, and then both positive and negative responses academic responses.

2.1 'Performative Acts and Gender Constitution An Essay in Phenomenology and Feminist Theory' (Butler, 1988)

In 1998, Butler alleged that 'gender is in no way a stable identity or locus of agency from which various acts proceed; rather, it is an identity tenuously constituted in time -an identity instituted through a stylised repetition of acts' (p. 519). She further defined these stylised repetitions of acts as 'the mundane way in which bodily gestures, movements, and enactments of various kinds constitute the illusion of an abiding gendered self' (p. 519). Through this 1998 article, Butler stresses several points in relation to gender; these are the limitations of the gender binary to adequately encompass all performative fluidities, the false universal signifiers of gender and the *power of representation*. Butler is overt in her belief of the *limitations* of the gender binary, arguing that 'gender is made to comply with a model of truth and falsity which not only contradicts its own performative fluidity, but serves a social policy of gender regulation and control' (1988, p. 528). She reiterates this in the observation that 'culture so readily punishes or marginalizes those who fail to perform the illusion of gender essentialism should be sign enough that on some level there is social knowledge that the truth or falsity of gender is only socially compelled and in no sense ontologically necessitated' (1998, p. 528). This binary evolved from two false correlations; one of sex with gender and the other of 'man' with 'humanness' and 'woman' as the opposite of man, constituting the 'Other', as explored earlier in this exegesis. By Butler's argument, the limiting gender binary is a tool of control that fails to encompass identities that do not adhere to the strict regulations of gender, as it was based on the false universal of man, with women constituting the Other. This fits into Butler's second point of the *false universal signifiers* of gender, where she argues that genders are 'neither true nor false, neither real nor apparent. And yet, one is

compelled to live in a world in which genders constitute univocal signifiers, in which gender is stabilized, polarized, rendered discrete and intractable' (p. 528). Butler's argument then, of the limitations and falsity of the gender binary, comes from the false correlation of gender with sex, which give power to people who strictly adhere to abiding gender performances and 'initiates a set of punishments both obvious and indirect' (p. 528) upon those who do not. In this regard, abiding gender performances are a tool for gaining representation and, by extension, power. This is the third point raised by Butler in this 1988 text: *the power of representation*. Butler explains firstly that 'if this continuous act [of performing gender] is mistaken for a natural or linguistic given, power is relinquished to expand the cultural field bodily through subversive performances of various kinds' (p. 531). Power must be gained by persisting to perform these subversive gender performances, which can help to combat the social and cultural injustices suffered by the LGBTQI group at large. As Butler explains:

Feminist theory has sought to understand the way in which systemic or pervasive political and cultural structures are enacted and reproduced through individual acts and practices, and how the analysis of ostensibly personal situations is clarified through situating the issues in a *broader and shared cultural context* [emphasis mine]. Indeed, the feminist impulse, and I am sure there is more than one, has often emerged in the recognition that my pain or my silence or my anger or my perception is finally not mine alone, and that it delimits me in a shared cultural situation, which in turn enables and empowers me in certain unanticipated ways. (Butler, 1988, p. 522)

In Butler's theory of gender performativity, those identities that lie outside the binary are unrepresented as punishment for failing to constitute abiding gender performances based on the false correlation between sex and gender. This lack of representation disempowers and isolates these gender identities but by strictly listing what constitutes a non-abiding gender identity so too does the gender binary name the manner in which it can be subverted, hence *Gender Trouble: Feminism and the Subversion of Identity* (Butler, 1990).

C. ROPER, 2064037 Flinders University PhD Candidate

2.2 *Gender Trouble: Feminism and the Subversion of Identity* (Butler, 1990)

Gender Trouble was released two years later in 1990 and presented a refined explanation of this theory. Butler again reiterates the distinction between sex and gender and the false universal signifiers of gender and poses the question of how the gender binary may be troubled.

Butler begins her argument for the distinction between sex and gender based on the false universal of maleness/femaleness by stating that 'gender is neither the causal result of sex nor as seemingly fixed as sex' (1990, p. 6). She extrapolates from this statement with the argument that when 'the constructed status of gender is theorised as radically independent of sex, gender itself becomes a free-floating artifice, with the consequence that *man* and *masculine* might just as easily signify a female body as a male one, and *female* and *feminine* a male body as a female one' (p. 6). Butler expands this hypothetical, explaining that, 'assuming for the moment the stability of binary sex, it does not follow that the construction of "men" will accrue exclusively to the bodies of males or that "women" will interpret only female bodies' (p.6). Butler gives an example of the false universality of gender, stating that 'there is a political problem that feminism encounters in the assumption that the term *women* denotes a common identity' (p. 3). From this, we can argue if 'women' do not denote a common identity then those women may not denote a common gender performance and as such sex is not an indicator of gender.

With this in mind, Butler then poses the question of how the gender binary can be troubled, asking, 'how can an epistemic/ontological regime be brought into question? What best way to trouble the gender categories that support gender hierarchy and compulsory heterosexuality?' (p. viii) Butler herself offers the solution, stating that it is 'precisely in the arbitrary relation between such acts, in the possibility of a failure to repeat, a de-formity, or a parodic repetition that exposes the phantasmic effect of abiding identity as a politically tenuous constructions' (p. 141). The answer seems to lie in culturally and socially representing those Other identities that lie outside the construction of gender, to introduce new terms of articulation. As Butler describes, 'the deconstruction of identity is not the deconstruction of politics; rather, it establishes as political the very terms through which identity is articulated' (p. 148). If the formation of gender is politically articulated, then a deconstructionist approach to gender performance and identity may shift the balance of power to include identities that are constituted outside the binary. The task of shifting this balance of power, as Butler describes, 'is not to celebrate each and every new possibility *qua* possibility, but to redescribe those possibilities that *already* exist within cultural domains designated as culturally unintelligible and impossible' (p. 149).

2.3 Bodies That Matter: On the Discursive Limits of "Sex" (Butler, 1993)

Butler revisited the theory of gender performativity in 1993 with *Bodies That Matter: On the Discursive Limits of "Sex"* in an effort to clarify her distinction between sex and gender in relation to transgender identities and address criticisms that had arisen from *Gender Trouble* (1990). As Butler describes it, the text arose to address 'some parts of *Gender Trouble* that have caused confusion, but also as an effort to think further about the workings of heterosexual hegemony in the crafting of matters sexual and political' (p. vi). Butler stresses in *Bodies That Matter* that "sex" not only functions as a norm, but is part of a regulatory practice that produces the bodies it governs [...] through a forcible reiteration of those norms' (p. 2). From this, Butler question the hegemonic force of that very regulatory law' (p. 2). A body that 'matters', Butler argues, is a 'sign, which in its redoublings and contradictions enacts a inchoate drama of sexual difference' (p. 49) Gender, in this case, begins on the false premise of sex as congruent with gender enforced through abiding gender performances and recognising the identities that are *not* abiding gender can have a major effect on the heterosexual hegemony. As Butler puts it, exploring, representing and understanding non-binary iterations of gender 'might force a radical rearticulation of what qualifies as bodes that matter, ways of living that count as "life," lives worth protecting, lives worth saving, lives worth grieving' (p. 16). In this regard, this thesis and Butler's theory of gender performativity share a common goal - to demonstrate that sex is not the defining feature that should permit some bodies certain actions and others not or grant some bodies value and others not. Butler says the exclusionary nature of the gender binary, 'orchestrates, delimits and sustains that which qualifies as the "human" [...] through a set of foreclosures, radical erasures, that are, strictly speaking, refused the possibility of cultural articulation' (p. 148). As such, this thesis also stands as a creative iteration of the theory of gender performativity by culturally articulating gender performances that transgress the Norm.

2.4 Interviews with Butler; Revisiting Gender Trouble (1994 and 2014)

In a 1994 interview, Butler stated that 'it is important to understand performativity - which is distinct from performance – through the more limited notion of resignification' (1994, p. 33). If the gender binary is upheld through the reiterations of abiding gender performances, then perhaps it can also be challenged by resignifications and repetitions of other gender performances. If abiding gender performances are signifiers of the gender binary, then surely variant gender

performances are signifiers of the falsity and limitations of that gender binary. The common trope of Butler's theory on gender is the false correlation between sex and gender and the importance of signification, both in upholding the gender binary and in deconstructing it.

In a 2014 interview, Butler addressed a persisting criticism of *Gender Trouble* that argued that she saw gender as a 'fiction' and that 'a person's felt sense of gender was therefore "unreal". This criticism predominantly came from transgender individuals under the impression that Butler's theory of gender performativity was delegitimizing their sense of self. As Butler explains, 'that was never my intention. I sought to expand our sense of what gender realities could be' (n. p.). Butler further acknowledged the criticism by stating she needed to 'pay more attention to what people feel, how the primary experience of the body is registered, and the quite urgent and legitimate demand to have those aspects of sex recognised and supported' (n. p).

2.5 Academic Responses to Gender Performativity

Butler's theory of gender performativity has been critically explored in depth since its formal introduction in *Gender Trouble* in 1990. These academic responses track particular tropes aligning power and recognition.

Presenting chronologically, Nelson (1999) argues for the power that can be gained by actively engaging with and subverting the 'compelled performance of dominant discourses' (p. 331). Change, Nelson argues, must be active, rather than 'through random, unconscious slippages in repetition' (p. 352). Hollinger (1999) introduces the use of science fiction as this active, intentional grasp of power, but also warns against the risk of reinscribing the notions of the dominant discourse. Hollinger observes that 'in our struggle against a monolithic patriarchy – which is, after all, a

kind of theoretical fiction produced, in part, by the very feminism aligned against it – we risk reinscribing, however inadvertently, the terms of compulsory heterosexuality within our own constructions' (p. 25). As Butler herself observed in 2007 'the naming is at once the setting of a boundary, and also the repeated inculcation of a norm' (p.147). By naming what lies outside the realms of the Norm, scholars risk reinforcing that segregation, though as discussed further in this thesis, any representation still opens up the avenue for discussion and resignification.

Blumenfeld and Breen (2005) also acknowledge the value of actively engaging LGBTQI identities with cultural discourse, noting that, 'in the brief moment of the vague "it moves me", social norms lose their hold a little, a slight shift occurs, a jolting is registered: nothing external; everything happens inside the spectator' (p. 57). The value of Butler's *Gender Trouble*, Blumenfeld and Breen argue, is that it 'attests to the critical importance of engaging gender in the classroom, where the struggle to articulate gender itself may serve as a means of social empowerment' (p. 159). In this regard, Blumenfeld and Breen are arguing that recognising that gender is not a binary can socially empower emerging identities and offer fiction as the stage upon which the social norms of that binary can be challenged and subverted.

Nayak and Kehily (2006) reflect similar opinions on the power that can be gained through the semiotic signification of subversive gender performances and also begin to note some identities that constitute the Other, as well as identities that continue to be excluded. The subversion of gender performances, they explain 'gives rise to an irrepressible proliferation of "Other" sex/gender possibilities— the tomboy, the lesbian, the drag queen, and so on' (p. 461). Nayak and Kehily then explore how the gender binary operates on a system of signifiers:

The binary, designed around opposition and exclusion, seeks to avoid intermixture through the polarisation of categories; for example, man/woman, white/black,

straight/gay, able-bodied/disabled. In these examples the former component of the dichotomous equation subsumes and dominates the latter, performing its roles as a "master signifier" whereupon the absented sign is impelled to take on a subordinate position as the "not said", absence or "lack". (Nayak & Kehily, 2006, p. 466)

Gender performativity is configured through signifiers that constitute a hierarchy of identity. This thesis seeks to undertake a study of exclusion and then offer the creative artefact as a contribution to the discourse by addressing that lack.

Stoller (2010) acknowledges the importance of discourse to Butler's theory of gender performativity, quoting Butler's answer in her 1994 interview that performativity is 'that aspect of discourse that has the capacity to produce what it names' (Butler, 1994, p. 33) and argues that gender is in between 'voluntarism and determinism. It is not voluntary because it depends on cultural norms, and it is not determined because it requires performative acts' (Stoller, 2010, p. 102). However, Schep (2012) criticises the dominant role Butler's theory has taken in the discourse, arguing that it has become totalising. Gender performativity, Schep argues, 'no longer has the status of a mere instrument to be used in local struggles; it has grown into a totalising theory that aims to account for all gender dynamics' (p. 874.) The task then, if this thesis is to stand as both a creative realisation of gender performativity and a modern transformation of it, is to acknowledge that sex and gender are not strictly correlated but also to explore gender performances that are both variant and unremarkable. An 'Other' gender performance need not be extreme to lie outside the binary.

In 2013, Xhonneux explored the concept of combining Butler's theory of gender performativity with literature, explaining that 'one of the strengths of literature is that it serves as a cultural laboratory for the exploration and testing of new social theories' (p. 292). In turn, Stark (2014) recognised the viability of science fiction for testing and deconstructing the gender binary from the inside, noting that

'transformative resistance is wholly dependent on a sense-making relation to already existing (although socially contingent) categories of being. This means that subversive repetition is reliant on a context in which the subversive act can be recognised as a form of subversion' (p. 95) Stark's argument is in contrast to the earlier considerations by Hollinger, who was concerned that naming what is segregated reinscribed that segregation. Stark explains that the theory of gender performativity regards 'recognition as a site of power through which the regulatory operation of norms enables such categories to be produced and undone' (p. 94). Furthermore, 'because the Butlerian subject comes into being through social norms, the form that it will take reflects already existing frameworks: consequently, its possibility for agency and resistance is to be found within these structures, never outside them' (p. 95). In this regard, Stark argues for the use of gender performativity to deconstruct the concept of the gender binary from within and gain power through recognition.

McQueen (2015) also notes this with the statement that 'to get a handle on the connections between power, recognition and subjectivity, it is instructive to turn to Judith Butler's account of gender performativity and the role that recognition plays in it' (p. 47). However, McQueen makes a new observation on the power to be gained by performing an unrecognisable gender, calling it 'a political strategy aimed at challenging entrenched norms of identity—not just with the aim of producing alternative forms of recognition but, more fundamentally, to call into question the very notion of a recognisable identity' (p. 49). In this regard, McQueen presents a new option of combining Butler's theory of gender performativity with unrecognisable, new gender performances. This unrecognisable gender performance is seen in the character of the Narrator in the creative artefact *Nothing like the Sun*;

similar attempts are also seen in one of the case studies of the exegesis, *Lock In* by John Scalzi (2014).

In a similar vein, Riach, Rumens and Tyler in 2016 explained that 'rather than regarding narrative as a mechanism through which to produce apparently coherent ways of knowing or speaking about organizations and the subjectivities on which they depend, they [narratives] are regarded as semblances of coherence that are performatively narrated' (p. 2077). Therefore, intersecting Butler's theory of gender performativity with fictional representations of gender variance is a way of both subverting and reifying notions of gender as well as testing the reception and coherence of these genders that lie outside the Normative.

Moslehi and Abbasi (2016) raise the problem of subjectivity when attempting to gain power through representation, be it through gaining recognition for variant gender identities or through presenting an unrecognizable gender. However, this subjectivity is not entirely problematic, as they note that subjectivity 'calls into question the originality of law and gender identity' (p. 176). Furthermore, subjectivity makes it 'possible to change the stable attributes that are associated with the sexes, and show the different images of woman as seemingly fixed concept' (p. 176). By Moslehi and Abbasi's explanation, subjective interpretations becomes a helpful tool for demonstrating that seemingly gendered behaviours do not present the same gender across all interpretations.

2.6 Gender Performativity, 'The Limits of an Acceptable Deviation' and *Nothing like the Sun*

Most recently, O'Shea in 2018 cites the persisting applicability of Butler's theory of gender performativity, noting the enduring importance of the sex/gender distinction as it 'offers a critique of a heterosexual matrix that naturalises certain rigid notions of

sex/gender as normative' (p. 4). O'Shea also notes the possible use of Butler's theory to 'help an understanding of (transgender) bodies [...] with the braiding of gender performativity and psychic depth' (p. 4). This thesis accordingly aims to aid the sociocultural perceptions of gender variance through the experience of narrative. A study by Odag in 2013 reveals the merit to the theory of the narrative effect upon the reader, noting that 'understanding the characters' situation and goals as well as feeling and identifying with their concerns appear to represent universal human actions that go beyond the categories of male and female' (p. 869). Another 2013 study by Kidd and Castano similarly revealed that reading temporarily enhances one's ability to understanding other people's 'mental states' (p. 377). As such, if being able to empathize with fictional characters is a universal human action and these fictional characters are satisfactory and recognizable, then fiction has an underutilized ability to safely explore gender variant performances.

If representation and recognition are sites of power (Nelson, 1999) and science fiction is 'a literature of cognitive estrangement' suited to theorising different realities (Hollinger, 1999, p. 24), then it is important to study the semiotic signifiers of those science fiction representations (Blumenfeld and Breen, 2005). The value in these studies lies in discovering what identities continue to be excluded even in the revisionist tales of gender fluid science fiction (Nayak and Kehily, 2006). Stoller (2010) observes the importance of these discourses while Schep (2012) warns against limiting individual gender identities through gender performativity, arguing that identities come into existence only once named. Xhonneux (2013) and Stark (2014) again theorise the intersection of Butler with science fiction, arguing for the use of deconstructionism to dismantle the gender binary via subversive gender performances. McQueen (2015) agrees with the power that can be gained through subversive acts, including intentionally unrecognisable gender performances. In turn, Riach, Rumens and Tyler (2016) explain the use of narrative to test the reception of alternative formulations of gender while Moslehi and Abbasi (2016) defend the subjective nature of narrative interpretation. From the academic responses to Butler's theory of gender performativity, researchers can observe three variables; the persisting importance of the sex/gender distinction (Odag, 2013), the theorisation of gender performativity through deconstructionism (Xhonneux, 2013; Stark, 2014) and the possible grounds for performing semiotic analyses of narrative representations as a site of power. This offers a provocative frame for my artefact, which is a creativeled reconfiguration of gender performativity through a semiotic analysis of prior texts with the aim of deconstructing the gender binary. As such, this thesis acts as a creative-led realisation of Butler's theory of gender performativity and relies upon the terms 'Normative' and 'Other'. In 2004, Butler addressed these gender 'norms,' confirming that;

A norm is not the same as a rule, and it is not the same as a law. A norm operates within social practices as the implicit standard of *normalization*. [...] Norms may or may not be explicit and when they operate as the normalising principle in social practice, they usually remain implicit, difficult to read, discernable most clearly and dramatically in the effects they produce. (Butler, 2004, p. 41)

Mandelo in 2012 argued that positive narrative representations must have a 'satisfactory model of agency that has recognition placed at its centre' (p. 2). This is a steep contrast to the lived narratives observed by Hammack et al in 2013, who observed that the narrative history of variant *sexuality* was one 'rooted in three master narratives – a sickness script, a species script and a subject script' (p. 233). These scripts aimed at depicted homosexuality as a sickness (relating to AIDS), a species (related to homosexuality as a species of the mentally ill) and a subject (related to subjects of tests); these pervasive scripts serve only to dehumanize sexual variance,

affording no agency or recognition of validity. By depicting variant gender performances in science fiction that are relatable, positive and affirming, this thesis reimagines Judith Butler's theory of gender performativity as a tool for social change and directly combats the limits determined in the texts of Le Guin, Leckie and Scalzi. The gender performances of the creative artefact specifically address the exclusions observed in the exegesis (female and feminine gender performances and gender variant sexuality) and the requirements set out in response to Butler – satisfactory representation of unremarkably gender variant characters (characters which mostly adhere to the Norm), distinctly gender variant characters (characters which mostly subvert the Norm) and a character of unrecognizable gender performance (the nameless first-person Narrator, who is never referenced by any he/she/they pronouns).

With this history of gender performativity understood it is now important to further define it as a *foundational* theory, which is a theory about the construction of knowledge.

All knowledge rests on foundational (noninferential) beliefs, that is to say, beliefs that are *not* based on prior knowledge. Gender, for example, was based on the false correlation of physical sex with gender. However, recent study has been 'shifting from a biological foundationalist paradigm of gender to a social constructionist one' (Knaak, 2004, p. 303). No longer correlated with physical sex characteristics, gender is understood as a construct of signs including behaviour and dress. Butler's theory of gender performativity builds on the evidence of self-reports, medical studies of gender/sex and more to provide a new basis of foundational gender theory in that it proposes that not only are sex and gender distinct but that gender itself is a performance. How well a person performs their gender becomes a foundational precondition upon which other knowledge can be built.

With the theory of gender understood as a foundational theory we can now begin to understand how gender *performativity* is also a theory of foundationalism. Initially proposed as an anti-foundationalist theory, I would argue that gender performativity *is* a foundational theory. Butler's theory could arguably posit 'gender' as a foundation of constant revision and evolution; there is no precise and agreed upon definition of what is or is not 'male', 'female', or otherwise but there is a hegemonic and ever-evolving repetition of performances that comprise different gender identities. It is this repetition of a gendered performance that becomes the foundational precondition upon which people are judged and perceived.

Gender identity is foundational in that a person's self-identification is based on self-evident sense-data and basic noninferential beliefs. In turn, though gender performances are constantly evolving, the gendered performance that people enact often becomes the foundational precondition that social interactions are based upon – how well a person performs their gender identity, if their gender performance is congruent with their physical sex, or if their gender identity is easy to categorise. This thesis uses gender performativity as a theory of foundational assessment along with semiotic analysis to determine (where possible) not only the gender performance of ambiguous characters but also the perceptions of non-binary or alternative gender by other characters as a means of social analysis. In short, each character's gender performance is a major foundational keystone of judgment, and analysis *of* these gender performances reveals the foundational limits of an acceptable deviation.

3. Variant Gender Performances

The exegesis portion of this thesis is a semiotic analysis based in narrative theory of Ursula Le Guin's *The Left Hand of Darkness* (1969), Ann Leckie's *Ancillary Justice*

(2013), and John Scalzi's *Lock In* (2014); the aim is to ascertain the limits of acceptable variant gender performances through a semiotic analysis of these texts. By reading these texts with a focus on gender performativity scholars reveal the behaviours that are 'acceptable' and the nodes and triggers for othering and variant gender performances. By finding these limits researchers can shatter these barriers and use the debris to build a creative response to combat gender policing and the strict prescriptions of what constitutes genders – both binary and non-binary.

This thesis thus studies the semiotics of these three texts to determine what beliefs the authors hold about variant gender performances, or what 'makes' an acceptably Other gender performance. In semiotics 'the *message* is the basic semiotic unit, or basic unit of meaning, and it derives its meaning from what it signifies in the external world' (Mickan & Lopez, 2017, p. 39). Semiotics is explored through two key terms, the *signifier* (a word, phrase, motif) and the *signified* (the message), or, as Gunther Kress explains it, 'a semiotic indicator (a signifier) of a social factor (a signified)' (Kress, 2015, p. 65). Johnson explains the value of semiotic criticism, saying 'criticism, in other words, is what is *added* to the series of literary signifiers in order to mark the *lack* of a signifier that could close the set' (2014, p. 344). Referring again to Kress, the process of semiotic analysis through signification and reinterpretation is explained as such;

Both the initial maker of the sign, and the re-maker of a new sign from that – taking the initial sign as a prompt for interpretation – are signmakers. Each makes selections and shapes of the sign according to principles based on their interest. This makes meaning-making into an ongoing process; and at each stage the social enters in the guise of the interests of the sign-makers. (Kress & Selander, 2012, p. 267)

By Kress' own explanation, semiotics is subjective but that social subjectivity allows for a continual reappraisal of a text dependent on the social focus. Kress further quantifies this as 'four rhetorical/semiotic principles operating in the process of recontextualisation: selection, arrangement, foregrounding and social repositioning' (Kress & Bezemer, 2008, p. 184). In a semiotic analysis of text, the interpreter must pay attention to what is selected, how is it arranged/re-presented, what is foregrounded/backgrounded and how is it repositioned socially. These semiotic analyses can also be referred to as 'close readings,' which Jänicke describes as 'the thorough interpretation of a text passage by the determination of central themes and the analysis of their development' (2017, p. 227). Berger (2010) explains the value of semiotic analysis as 'an explanation of how people find meaning in their everyday lives, in the media they consume, and the messages they receive' (p. 11). Berger's explanation that 'as we grow up and become imprinted with culture codes, we learn all kinds of associations, which means that metonymy can rely on information we already have in our heads (i.e., conventional associations) to convey information' (p. 18) supports the belief that media can act as part of the master narrative prescribing acceptable and unacceptable ways of doing and being. Metonymy is another form of figurative language similar to metaphor that acts as substitution, the way 'the skirt' can be easily identified to mean 'the woman' or 'it' can be used to derisively identify a person of unclear or transgressive gender. Berger addresses the use of semiotic analysis in fiction, observing that 'works of fiction generally reflect the dominant codes and values and beliefs found in a culture, which is why literary works can be analyzed to help understand the societies and cultures in which they are created' (p. 127). The three texts of this exegesis can thus be said to reflect the real-world beliefs of what gender performances constitute the acceptable limits of variation. All else is excluded. Solomonik (2015) acknowledges that in semiotics 'even the absence of something may take on the qualities of a sign' (p. 43). This thesis, which aims to find the limits of acceptable variant gender performances,

is thus also interested in what is *not* being depicted. What formulations of gender are being excluded? The creative thesis will thus seek to represent and explore those exclusions in an effort to combat gender policing and prescriptive gender performativity. Mingers and Willcocks (2017) support the use of fiction as a mirror of these societies and cultures, observing that 'semiotic process draws on the social world for the system of connotations underlying language and through use thereby reproduces and sometimes changes it' (p. 19). Hence, this thesis explores the cultural *messages* being reflected about gender performances in science fiction, about what is and is not acceptable, and then seeks to expand the boundaries through the creative artefact to combat gender policing.

This semiotic analysis method is a 'form of criticism – above all Barthes' analyses – or at least a reflection on textual interpretation' (Compagno, 2018, p. 5), however, this thesis is based more in deconstruction. Roland Barthes introduced the semiotic analysis of messages, arguing that 'either narrative is a random assemblage of events, in which case one can only speak of it in terms of the narrator's (the author's) art, [...]; or else it shares with other narratives a common structure, open to analysis' (Barthes, 1975, p. 238). Tzvetan Todorov recognised the potential for narrative analysis, observing 'at the most general level, the literary work has two aspects: it is at the same time a story and a discourse' (2014, p. 381). By studying fiction, this thesis must also refer to narrative theory; as such these gender variant texts may provide 'innovative insights into the ways in which narrative structures may generate meaning' (Gymnich, 2013, p. 713) and help to 'locate the novel in a larger historical dynamic whereby new forms emerge from the introduction of unnatural elements that later become conventionalized' (Dawson, 2018, p. 8) and it is the discourse resulting from deconstructive semiotic analyses that this thesis studies.

Deconstruction was theorised by Derrida, tracking the movement from structuralism and towards poststructuralism. Derrida argued that deconstruction borrowed 'all the strategic and economic resources of subversion from the old structure' (1976, p. 24) to inhabit structures and dismantle them from within. Bradley posits that Derrida's intention is to 'put everything into question' (2009, p. 4), that through deconstruction Derrida 'shows that the supposedly primary, dominant or superior value implicitly relies on the supposedly secondary, different or inferior value in order to achieve the presence that it should achieve all by itself: the masculine depends upon the feminine in order to define its own identity in the first place' (2008, p. 7). Hence, as a challenge of the gender binary, this thesis applies deconstruction. Ricoeur has explained the potential of deconstruction to dismantle constructs, observing that, 'construction relies on the "clues" contained in the text itself: a clue is a kind of index for a specific construction, both a set of permissions and a set of prohibitions; it excludes some unfitting constructions and allows some others which make more sense of the same words' (1974, p. 95). Thus, the gender binary construct contains semiotic clues that permit some gender performances and not others. As such, these critical analyses aim to both discover what is *lacking* in science fiction that challenges the master narrative of the gender binary and show what persisting notions of the binary exist in variant gender performances in literature, allowing for the creative thesis in turn to explore more diverse gender performances. This deconstruction of and 'suspicion towards established worldviews, old or new' (Pavel, 2017, p. 149) marks this study as a deconstruction of the representation of gender variance in fiction. This thesis studies the representations of those unconventional gender identities that are 'devalued in socio-cultural norms, discourses and representations and the ways in which critiques of oppression themselves contribute to marginalisation' (Chadwick, 2017, p. 7).

By understanding and referring to semiotics, deconstruction, theory of narrative and queer theory, this thesis now seeks to study Le Guin, Leckie and Scalzi through the lens of Judith Butler's theory of gender performativity. Propp observes that 'the character of a genre is determined by the kind of reality it reflects, which realism is expressed, the relation to reality and its assessment. Unity of form results in unity of content, if by content we understand not only the plot but also the intellectual and emotional world reflected in the work' (Propp, 1984, p. 41). Thus, researchers can observe that the gender fluid characters of Le Guin, Leckie and Scalzi determine and reflect the transgressive nature of science fiction, the combination of which challenges the master narrative. The tools of deconstructionism and semiotic analysis encapsulate this interrogation of the sex and gender binaries in literature with a focus on specific signifiers.

4. Science Fiction Case Studies

The question is, why science fiction? Yaszek and Sharp (2016) observe that 'for some women, SF was an ideal way to contribute to the creation of new and better political sensibilities' (p. xxii). If it is understood that science fiction is a tool of political and social re-imagination and revolution, then we can agree with Chu's argument (2010) that science fiction has the 'capacity to perform the massively complex representational and epistemological work necessary to render cognitively estranging referents available both for representation and for understanding' (p. 7). According to Chu, science fiction is a medium for understanding possibilities that lie outside the current realm of representation, as well as questioning the basis for that current realm's structure: 'science fiction presents itself as an intriguingly convenient resource for generating new perspectives on an ancient topic' (Chu, 2010, p. 3).

Science fiction as a genre seems to address several questions raised by Butler: 'how can an epistemic/ontological regime be brought into question? What best way to trouble the gender categories that support gender hierarchy and compulsory heterosexuality?' (1990, p. viii). The answer seems clear;

If a fictional story or a painting finds such enormous success, it must necessarily appeal to fundamental human experiences, fears, or hopes. The struggle between authority and humane behaviour is a struggle that almost every human being has experienced at some point. Moreover, we have seen that it is entirely possible to take some elements of the representation and translate them to diverse, daily situations. Fiction is often meaningful for individuals because it refers to general human experiences.' (Herzog, 2016, p. 182)

It is this referential thought experiment of a narrative that troubles the gender categories that makes room for both new texts, like the creative thesis *Nothing like the Sun*, and new individual gender performances. Writing and speaking create regulatory claims and 'as regulatory regimes are sustained by reiteration, making claims on behalf of abjected or 'unintelligible' bodies is part of a way to contest the cultural unintelligibility of certain bodies' (Wilcox, 2017, pp. 789-808).

Issues do exist in trying to represent the unfamiliar. Capuzza et al warns that increased representation of transgender lives 'has resulted in regulation of transgender identities and expression' (2017, p. 215), or simply put, a policing of strict rules of performativity that govern transition. However, Amato argues for the value even in clichéd representation, describing the process of reiteration of intersex lives 'which both produces particular representations of intersex subjects and at the same time opens the intersex subject up to the possibility of its destabilization and resignification' (2016, p. 23). A flawed representation is still representation, and that representation can be queered in future iterations as described by Cooper (2002), who observes that 'media narratives that challenge hegemonic masculinity have the potential to destabilize the heteronormative gaze' (p. 48). The results of a 2017 study

by McInroy and Craig echo this argument, 'many [participants] stated that these portrayals, however flawed, gave them a sense of possibility simply because they were seeing LGBTQ identities depicted. These representations validated their emerging sense of selves, and legitimized their feelings' (p. 38) Capuzza et al summarises the power of representation, explaining that 'examining both the quantity and quality of transgender television depictions is important because media construct, reinforce, and challenge existing social definitions of gender [...] gaining media visibility is an important step in claiming political power' (2017, p. 215).

By exploring and writing non-binary gender performances in science fiction researchers can challenge the persisting unintelligibility of their identities. To clarify, 'including queer texts is a good first step, but critical analysis and complex discussion of gender/sex/sexuality systems must also be part of the lesson' (Siebler, 2016, p. 159). As such, it is important to research these representations and track their transformation through time, as this thesis does. This is because 'all fiction is engaged in both theory and practice, indeed all writing, all speech is doing both/and rather than either/or' (Larbalestier, 2002, p. 8). This engagement via popular culture is both theory and practice and can be understood to 'put up a mirror to our lives and show connections between media, socialization and identity' (Trier-Bieniek, 2015, p. xiv). Essentially, fiction and even culture in general can be said to both reflect our current 'network of practices' and our understandings of issues such as gender and also serve to transform those practices and understandings.

These texts – *The Left Hand of Darkness* (1969), *Ancillary Justice* (2013) and *Lock In* (2014) serve as the three gender fluid science fiction case studies of this exegesis. Garber and Paleo recognise the historical use of science fiction to 'invent social systems that deal with sexuality in a variety of ways. In doing so, these authors

say a great deal about our own commonplace cultural views of variant sexuality' (1990, p. vii). As such, the use of science fiction by Le Guin, Leckie and Scalzi provides a great deal of material on the commonplace views of gender related to their time and author. In turn, Paik recognises that 'in the realm of speculative fiction, the endeavor to capture the ambiguities of revolutionary change is to be found in counter utopian narratives that provide an account of sociopolitical transformation resulting not in the abolition of oppression but rather in its redistribution' (2010, p. 25). Schmeink also notes the value of science fiction to reflect current sociocultural understandings and the implicit capacity for change, observing that these texts are 'only outwardly concerned with the future; their main concern rather is with the present and with developments within contemporary society and how they influence human lives' (2016, p. 11). The human lives influenced by the redistribution of power in gender fluid science fiction are also the ones that this thesis refers to as Other. Hellstrand identifies Bhabha's use of 'Other' as such;

Bhabha traces the conditions of possibility for identity and recognition in the histories of colonialism where the Western, white (male) coloniser is privileged over his racialised and colonized Other. For Bhabha, the question of identity is inevitably linked to questions of belonging, for example in relation to delimitations of family, class, nation, gender or ethnicity. As such, the question of identity and belonging relates to questions of sameness and difference, inclusion and exclusion. He is particularly concerned with how the notion of a universal human being cements certain identities as normative, and certain identities as Other to this norm. (Hellstrand, 2016, p. 253)

Freedman (2000) also notes the use of the commonly accepted norm and the Other in science fiction, observing that there are 'definitions that position science fiction in a variety of ways with regard to its customary generic Others' (p. 32). However, science fictional 'generic Others' are not an adequate way realise the possible formulations of gender performativity, as observed by Shafer. Shafer notes that 'Butler, in her work, seeks to create social space for more than two genders' (2017, p. 124) and also explains that science fiction and queer theory are concerned with 'thinking about the ways that spaces are created by heteronormativity and to then think outside these normative spaces' (p. 22). Science fiction, when done well, can thus act as a tool for queering.

The value of engaging with variant sexualities and gender performances has been analysed in multiple studies and texts. Goren (2016) has noted science fiction 'provides scholars, decision-makers, and citizens with commonality and an often interactive arena where politics of all kinds are on display and are engaged' (p. 482). This relates to Bradway's discussion on reading and the possible reach of queer literature (2017): Bradway observes that the 'norms of reading also circumscribe legitimate modes of interpretation-they establish what practices of reading will get to count as *critical* and under what conditions. These norms operate constantly to condition a text's field of reception and to delimit its horizons of social engagement' (p. xxvii). Hammack, et al, noted in 2009 that 'it is in the engagement with master narratives of desire and identity that a discourse is either reproduced or repudiated by a new generation of youth' (p. 879). With this in mind it can be argued that narratives provide the grounds for exploring and engaging with sexual and gender politics, but that those same depictions of gender and sexuality may limit the reach of the narrative as it falls outside the master narratives of acceptable texts. In turn, readers can engage with narratives and either reject or reproduce the gendered performances depicted. Clode and Argent studied gendered assumptions in 2016 and theorised that studying perceptions of gendered performances in literature 'might allow future researchers to explore not only who we identify as, but how we construct male, female or other identities (including broader cultural and ethnic identities)' (p. 44). However, these possible queer identities are governed by the need for certain values. Steelman (2016,

pp. 79-84) notes the necessity of depicting the queer gender or sexuality of person's identity an *equal* part of their identity, rather than the defining feature but De Villiers argues for an 'opacity' for 'locating and marking the weak points in the system known as the "epistemology of the closet", and of finding an opening for the creation of a queer public persona that manages to resist confessional discourse' (p. 163). Hence a careful balance must be struck between representation and the 'coming-out' confessional memoir. Of course, queer identities are not limited to those that completely transgress. Martin, et al, researched the value of an androgynous gendered performance and found that 'crossing gender boundaries can be healthy and not detrimental [...] the key may be to do so in adaptive and flexible ways, that is, by matching behaviors to the demands of situations' (p. 601). Kark et al, had similar results, finding 'both women and men can be more effective when they have the ability to combine agentic and communal behaviors in a flexible way' (p. 638) and that "masculine" and "feminine" attributes and behaviors are socially constructed and are not a fixed personality trait. Rather they are dynamic attributes that can be shaped, reshaped, and transformed in interactions with others' (p. 638). This returns the discussion to Butler's theory of gender performativity and Bhabha's third space theory and how these theories can work with narrative. Hayes, et al, observes that 'Bhabha's in-between can also be a productive concept for *queer* comparative studies; indeed, it parallels Judith Butler's discussion of the excess that distinguishes copy from "original" (always already a copy of some prior "original")-the excess that lies between them, one could say— in the performance of gender norms' (p. 3). With this in mind researchers can understand that narratives offer the grounds for a realisation of Butler's theory of gender performativity and third or Other identities that provide positive representations which are not being two-dimensional tokens or confessional

memoirs. Eduardo De Gregorio-Godeo sums up the value of normalising these representations;

The field of the struggles over recognition becomes a site for the rearticulation of heterocentric conceptions of embodied life not merely and primarily reinforced over and against non-normative gender and sexual positionings, in this case through phobic discourse that naturalize the gender binary and heterosexuality (although this is also true). On the contrary, the centrality of the heteronorm within progressive frames is made possible by the inclusive normalization of queer positions as a set of discrete and discernable identities still sustained in the sex/gender divide (which repeatedly reinstalls the opposition between material body and imaginary gender). (De Gregorio-Godeo, 2013, p. 20)

As such, the creative-led thesis aims for fair representation of gender variance that exists alongside identities that *do* conform to the gender binary – the aim is to naturalise a harmonic coexistence of gender identities without privileging any particular identity. Whilst gender variance is an important characteristic and deserving of recognition, it should not be treated as or depicted as the defining feature of a person's identity. This normalisation of non-binary gender performances is one of the main goals of the creative artefact.

5. Creative Research Method

Arrigoni (2016, pp. 99-112) proposed a schema for undertaking and evaluating practice-led research. This thesis, in relation to Arrigoni's schema, demonstrates a 'methodological framework' in the research design of studying the trajectory of representation of non-binary genders from their inception in 1969 to current notable iterations through Butler's theory of gender performativity and Propp and Todorov's theory of narrative with references to academic explorations of the social and cultural receptions of variant gender. This 'structuring through studies' of this thesis is seen in the examination of Le Guin, Leckie and Scalzi to answer 'explicit research questions' about the changing representation and the 'record of development'. This record of

development is the observed changes from Le Guin to Leckie to Scalzi, the changes from those texts to the creative thesis and the changes in the surrounding theoretical framework (responding to and maintaining up-to-date resources). This thesis operates under a hypothesis of a continued exclusion of certain identities in the field of gender fluid science fiction and seeks to progress existing research patterns through the intersection of deconstructionism and semiotic close reading of the trajectory of texts and the contribution of a creative thesis. Arrigoni observes the value of the creative theses in practice-led research as 'unique objects of experience and the main outcome of the research' that 'generate and communicate forms of knowledge which are distinct from their own meanings, but related to their making process, their impact on the public' (p. 101). Batty and Kerrigan observe one of the goals of creative theses to be aimed at producing new knowledge, such as 'narrative techniques that adhere to or expand on existing paradigms' (2018, p. 72). As such, the creative artefact of this thesis is expanding the existing paradigms of non-binary gender performance through some of the narrative techniques observed in Le Guin, Leckie and Scalzi and some that are novel in their use to transform the discourse on cultural depictions of variant gender performance.

Discourse (including that stemming from creative writing) can 'emphasize the power that lies in language to structure certain understandings, thinking and actions [...] in the construction of reality and in particular claims of truth' (Bryant, 2015, p. 145). Exploring and exercising the language and narratives surrounding gender variance can reveal current social and cultural adherences or challenges to the binary opposition of gender, recognised by Herzog as 'art as mimesis' (2016, p. 172). This called for the use of a practice-led thesis to allowed me to study and then respond to the subjectivities of the Le Guin, Leckie and Scalzi by proposing a new aesthetic

(creative text) stemming from a semiotic and textual analysis. Creative-led research allows the researcher to theorise different social structures that may produce new knowledge in regards to our current social structures and issues. Herzog observes this point in two ways: he argues that 'aesthetic analysis could be used to perceive the injustices done to muted and therefore socially excluded subjects' (2016, p. ix) and that 'we can understand art as moral mimesis. Art imitates human actions. In one form or another, these actions are morally shaped. Therefore, art can help us decipher social normativity' (2016, p. 172). The creative research method thus allows researchers to observe and contribute to the structure of language surrounding LGBTQI and non-binary gendered individuals and prompt the emergence of new knowledge and attitudes by offering a space for readers to connect with real events and experiences within the safety of fiction that imitates life.

Certain issues exist within using a creative approach to combat cultural and social perceptions, namely in relation to subjectivity, though Bacon argues that 'practice-led research is an iterative cycle of action and reflection' (2017, p. 236). However, it is not simply the subjectivities of the researcher that must be managed, but also the subjectivities of the reader. As Petra Doan says in 'The tyranny of gendered spaces–reflections from beyond the gender dichotomy';

I recognize that my gender performance is simultaneously modulated by the observers of my gender as well as the spaces in which we interact. These modulations do not shift my own sense of gender, but they do shape the visibility and impact of my gender performance. (Doan, 2017, pp. 635-654)

The impact of Doan's gender performance is reliant upon the space in which it takes place and the people who observe it and so by framing various gender performances and gender variances within a science fiction network of practices, scholars can serve to heighten the affirmative impact of those diverse representations. The reception of the text is still dependent upon the subjectivities of the observer but the use of culture in a science fiction perspective serves to transform the reader's perceptions.

The practice-led creative research method allows us to respond to prior explorations of non-binary gender performances in science fiction, such as Le Guin, Leckie and Scalzi and the exclusions noted within them. It also allows creative-led researchers to explore personal subjectivities and biases through purpose-build characters that perform variant gender performances that expand the limits of acceptable gender performances. Furthermore, inhabiting these characters through the process of reading allows us to put aside our own understandings of the world to successfully comprehend other identities, be they LGBTQI or otherwise. This methodology encourages introspection, not just by the researcher but by the reader as well. This is supported by the observation that 'aesthetic products are often able to better express social processes. They aim at another, non-linguistic form of understanding social reality. [...] aesthetic products can help us understand both the suffering of others and the processes of obfuscation that impede the perception of that suffering' (Herzog, 2016, p. 171). Potentially, these texts allow different readers to understand gender variant identities or come to understand their own gender variance while also learning to recognise omission in literature. As such, this exegesis is comprised of four semiotic and textual analyses that allow researchers to gather data on how authors from 1969 to 2014 express what it means to perform gender, either by conforming to or transgressing the normative gender binary.

6. Rationale for Text Selection

Written as a response to the representations of non-binary gender, the creative thesis seeks to actively evolve from the current discourse. In this exegesis, I am comparing these literary explorations and attempting to answer several research questions. What gender performances, variant or binary, exist in science fiction? And, who is missing from the discourse? When choosing the texts to study I had several selection criteria in mind: the texts must be novel-length and have achieved some semblance of mainstream popularity and they must display the perceptions of some currently conceivable non-binary gender identities. The chosen texts must begin at the earliest appropriate iteration of non-binary gender in science fiction that still adheres to the selection criteria and then must be contrasted with recent texts that also fulfill those criteria. This thesis is focused on three texts, however, it is important to situate these texts historically as they are not the only literary explorations of gender in science fiction.

I've selected Ursula Le Guin's 1969 text *The Left Hand of Darkness* as the mother of gender fluid science fiction. *The Left Hand of Darkness* received the Hugo and Nebula Awards and stands not only as a rich contribution to the realms of science fiction but also as a keystone in feminist literature and gender fluid science fiction. The ambisexual and androgynous alien race of *The Left Hand of Darkness* could conceivably be read as representations of intersex, genderfluid, non-binary and gender nonconforming individuals. However, it is also important to make special note of other authors – Sonya Dorman, Joanna Russ, Samuel R. Delany, and John Varley – and justify my choice of Ursula Le Guin. I will address each of these authors and their associated texts in turn.

Due recognition must first be given to Sonya Dorman, author of the 1966 short story 'When I Was Miss Dow' which predates the publication of Le Guin's *The Left Hand of Darkness* by three years. Dorman won a retrospective James Tiptree Jr. award in 1995 for 'When I Was Miss Dow', which follows a single-sexed singlelobed alien who shape shifts into a human form named Miss Dow and learns which behaviours (performances) are appropriate for each human gender. This provides excellent study for the intersection of gender performativity and science fiction but was excluded from the scope of this thesis as it is a short story of less than fivethousand words and it is my intention to study novel-length mainstream texts.

Next is Joanna Russ who is most known for her 1975 text The Female Man. Le Guin's The Left Hand of Darkness predates Russ by six years and it my intention to begin my study with the earliest novel-length mainstream text that intersected gender performativity with iterations of gender identity that exist in the world today. However, The Female Man also lies outside the scope of this study for another reason. The Female Man does follow four protagonists who could be argued to be the same person enacting different gendered performances based on the system of gender in their society, however, it is my intention to study texts that entered the world of popular mainstream literature at publication and I have prioritised literary popularity (books that were widely popular at the time of publication, identified by prizes leading to mainstream acknowledgement or written by an established mainstream author) as a truer reflection of social perceptions. Simply put, The Female Man did not gain the same level of popularity and literary success as its predecessor The Left Hand of Darkness, hence my choice of Le Guin over Russ as the most appropriate starting piece of gender performativity in science fiction. I would suggest that future research could benefit from studying The Female Man through the lens of gender

performativity especially as both *The Female Man* and Butler's Gender Performativity are well documented in their exclusions of transgender identities. Both Russ and Butler have amended these exclusions later in life and as such I believe a study of these two authors and the intersection of their work would make an excellent topic of future research.

This thesis must also acknowledge Samuel R. Delany for his 1984 novel Stars in My Pocket Like Grains of Sand, which presents an alternative system of gender subjects are referred to with female pronouns until they become the object of the speaker's sexual desire, at which point male pronouns are used. There is also a secondary three-gendered race of people, the Evelmi, though this multi-gendered race has six limbs and multiple tongues. I selected Le Guin's The Left Hand of Darkness over Delany's Stars in My Pocket Like Grains of Sand for two major reasons: one, despite the issues of The Left Hand of Darkness, it predates Stars in My Pocket Like Grains of Sand by 15 years and it is my intention to study the representations of alternative gender in science fiction from their earliest iteration; secondly, it is my intention to study the perceptions of gender diversity that exist in the world now. Hence, the gender representations are conceivably human, which excludes the nonhumanoid Evelmi. Though the Gethenians of The Left Hand of Darkness are also alien with their own uniquely ambiguous sex, they match iterations of gender diversity that exist in the world as it is now - namely intersex, genderfluid, nonbinary and gender nonconforming individuals. This, paired with Le Guin predating Delany, influenced my selection of core texts.

I must then acknowledge the work of John Varley, author of the 1992 novel *Steel Beach*, which was nominated for both the Hugo and Locus awards for Best Novel and opens with a declaration of impending obsoletion for the penis. The story

follows a 100-plus year old reporter named Hildy Johnson. Hildy begins the text as a man and later undergoes a 'Change' to become a woman as a new cosmetic change due to the resounding boredom of this utopia. However, Hildy's sex change has less to do with gender identity or gender performativity than expected, as the novel seems to purport that gender identity (identifying as a woman/man) is a product of sex characteristics (physical sex markers like a vagina/penis), rather than gender identity being distinct from biological sex. Varley further complicates the possible study of gender performativity by positing that sexual orientation is constant through the Change (a homosexual man will become a lesbian woman after the Change, as they remain homosexual). Due to Varley positioning gender identity as a product of biological sex rather than distinct from it I have excluded *Steel Beach* from this study. There is no doubt that Steel Beach is a worthy text of future research studying literary perceptions of the sex/gender distinction, however, it lies outside the scope of this study as I wished to contrast my earliest appropriate iteration of non-binary gender in science fiction with recent texts (post-2010).

Recognition must also be given to Melissa Scott's 1995 novel *Shadow Man*, which won the 1996 Lambda Award for Science Fiction/Fantasy. *Shadow Man* was similarly excluded from this study for being neither the earliest appropriate text nor published post-2010, however it along with the other excluded texts provide grounds for future study. *Shadow Man* tells a story of five genders – male ('he' pronoun), female ('she' pronoun), 'mem' ('be' pronoun, outwardly male but with XX chromosomes), 'fem' ('de' pronoun, outwardly female but with XY chromosomes) and 'herm' ('hermaphrodites' [use of term not mine], '3e' pronoun with mixed primary and secondary sexual characteristics, i.e.: both testes and ovaries). The story takes place on Hara (formerly Earth), a socially backwards planet which still only

recognises two genders, despite FTL (faster than light) travel causing a massive increase in intersex births. The story provides a useful critique of our current gender binary distinction and remains relevant despite being published almost twenty-five years ago.

With The Left Hand of Darkness as my starting text in mind, I then needed to choose two recent texts for comparison. I selected Leckie's 2013 novel Ancillary Justice not only for its literary acclaim (winner of the Hugo, Nebula, Arthur C. Clarke, and Locus Awards, among others) but because of it's unusual approach to and challenge of the gender neutral pronouns; Leckie uses the female pronouns of she/her instead of they/their to denote a single, ambiguous gender. Le Guin's choice of male pronouns as neutral/universal is contrasted sharply by Leckie who uses female pronouns as neutral, making for a suitable comparison. Furthermore, Ancillary Justice is a post-2010 novel-length text that depicts currently conceivable non-binary gender identities - as the main character refers to all other characters with the female (neutral) pronoun, most other characters could conceivable be any gender identity. This includes female, male, transgender, intersex, non-binary, genderfluid and more. To compare Le Guin with Leckie, I have labelled The Left Hand of Darkness as societal androgyny (in which we as the reader observe a society of androgyny depicting possible performances of intersex, genderfluid, non-binary and gender nonconforming individuals) and then in turn labelled Ancillary Justice as third person gender ambiguity (in which the reader observes gender ambiguity through the third person limited point of view). The gender of almost all other characters is never revealed, which is impressive and unusual and allows the reader to make assumptions on what gender, if any, those characters are performing.

Lastly, I've selected John Scalzi's *Lock In* not only for his career as an author (winner of the Hugo Award in 2013 for Redshirts and former president of the Science Fiction and Fantasy Writers of America) but for his exploration of assumptions of gender in his first person point of view text *Lock In*: Scalzi's protagonist has a genderneutral name and is never referred to with gendered pronouns. If I have called Le Guin's *The Left Hand of Darkness* 'societal androgyny' and Leckie's *Ancillary Justice* 'third person gender ambiguity' then I will further name Scalzi's Lock In 'first person gender ambiguity' as the gender identity of the first person narrator is ambiguous to the narrator; readers make assumptions of the narrating characters gender based on their understanding of the character's gender performance. With Le Guin using male pronouns as neutral/androgynous, Leckie using female pronouns as neutral/ambiguous and Scalzi using first-person narration for subtle ambiguity I had chosen my three core texts.

However, there must be two more notes, which are deeply intertwined. Firstly, it must be acknowledged that my three chosen texts were all written by (to the best of my knowledge) straight, white, middle-class, cis-gender authors. Secondly, to add to this discussion, in October 2017 Rivers Solomon's *An Unkindness of Ghosts* was published and later nominated for both a Stonewall Book Award for Literature and a Lambda Award for LGBTQ literature. The author, Solomon, is black and openly transgender and prefers they/them pronouns and Aster, the main character of *An Unkindness of Ghosts*, is black, gender fluid and neurodivergent. Aster uses female pronouns and, at times, performs her own perception of masculinity and maleness for various reasons. Future study of gender performativity in science fiction would benefit from including *An Unkindness of Ghosts*, which was released too late to be included in the size and scope of this study

The three core texts will be studied in regards to newer conceptions of Judith Butler's theory of gender performativity (1990), and in relation to Propp and Todorov's theory of narrative, via an intersection of deconstruction and semiotic analysis, with reference to Herzog's Discourse Analysis as Social Critique (2016). This eclectic theoretical matrix frames and enables the artefact.

6.1 Ursula Le Guin's The Left Hand of Darkness (1969)

The Left Hand of Darkness by Ursula Le Guin is the first of the three texts this exegesis studies. Le Guin presents a thought experiment of an alien society free from gender with an androgynous ambisexual race. These alien Gethenians have the potential to become either male or female when entering sexual heat. For 21 days of their 26-day sexual and oestrous cycle, Le Guin's Gethenians are androgynous menwomen; for the other five days they become men or women for sexual and reproductive purposes. However, Le Guin is let down by the overbearing maleness of her fictional society which is due, in part, to her use of the male pronouns. In the past, Le Guin (1988, pp. 155-172) has argued for the use of male pronouns as the 'generic singular' pronouns but later redacted her opinion in favour of they/them/their. Furthermore, Le Guin's gender fluid society is complicated by the harsh criticism of femininity the alien Gethenians face, not only from the human envoy Genly Ai, but from each other as well. This is because, in part, those Gethenians are performing an androgynous gender that transgresses the male gender role that Genly has assigned to them. Feminine traits are likened to animals and described harshly and derided but rending femininity into the space of Other does serve some purpose. It's acknowledged that 'the use of masculine pronoun as the neuter pronoun in The Left Hand of Darkness is closely connected to the fact that the most frequent first-person

narrator is Genly Ai, the envoy [...] His use of "it" keeps the Gethenians at arm's length. His use of "he" keeps this world of Others in the realm of the Same' (Larbalestier, 2002, p. 103). By forcing the 'Other' variant gender performance of the Gethenians into the world of 'Same' (men), Genly subsequently forces their femininity outside into the sphere of 'Other.' Their femininity then stands in as metaphor *for* variant genders, highlighting the attitudes non-binary individuals face in real-world circumstances. Le Guin thus encourages the reader to reassess their internal attitudes toward non-binary gender performances and the language scholars use regarding gender variant behaviours. The value of *The Left Hand of Darkness* lays in Genly's journey of eventual acceptance of the Gethenians androgynous gender performance as menwomen, not men. The reader and Genly are guided along a journey of thought experiments set in an alien world and encouraged to consider what it is that makes a person Male or Female or Other or both and to understand that a person who is Other or both is not lesser. Genly and the reader come to accept that the Gethenians being outside of the gender binary is just a facet of their identities, not their whole identities. In doing so, Le Guin legitimises androgynous non-binary gender performance but at the cost of excluding women, femininity and the variant gender sexuality.

6.2 Ann Leckie's Ancillary Justice (2013)

The second chapter of the exegesis is a semiotic and textual analysis of *Ancillary Justice* by Ann Leckie, which gives us third-person gender ambiguity through the use of female pronouns as the neutral. The narrating character, Breq, comes from the alien Radchaai society. This society recognises sexed bodies, as evidenced by a brief discussion on various methods of reproduction involving contraception, or surgeries,

or tanks, or surrogates. However, there is only a single gender/gender performance and that gender is women, mothers and daughters referred to with the she/her pronouns. No character can be exclusively attributed to either half of the current binary and this undeniable discord encourages the reader to reassess their assumptions of gender. Leckie (2013, p. 75) even acknowledges that gender and sex are not a direct correlation, which, paired with her explorations of third-person gender ambiguity, subtly deconstructs the idea of gender as a strictly separated binary of masculinity and femininity. Despite being published in 2013, Leckie's explorations can be summed up by the still-relevant observation that 'in twentieth century science fiction, women writers offer, instead of the traditional male gender of narration, gender reversed, gender ambiguous or gender erased' (Donawerth, 1996, p. 176). Leckie's erasure of gender through the use of a single neutral pronoun is perhaps prompted by the assertion that, 'tellingly, there is not a single word for people who do not fit gender norms that is positive, affirming and complimentary. There is not even a word that is neutral' (Wilchins, 2004, p. 38). Taking this into consideration, if Leckie wished to present gender-neutrality she had to step outside the realms of the default-to-male neutral pronouns as seen in Le Guin's The Left Hand of Darkness or create new pronouns that would disrupt the reader experience. The result of Leckie's clever gender reversal, gender ambiguity and gender erasure is a very clear challenge of the notions of masculinity and femininity being indicative of gender. Leckie contests the notion of gender markers with characters who cannot possibly be segregated into either side of the gender binary, characters which are easily recognised but for which readers have no name beyond simply gender-fluid. Leckie provides a stage upon which any reader may renegotiate not only their gender identity but also what gender identities are possible, what is means to be male or female and

how the concepts of masculinity and femininity intersect with these meanings. She challenges and reverses the insulation that protects 'Male' from discussion and sets 'Female' as 'Other' and demonstrates just what is left when gender is erased entirely. Leckie's use of gender-neutral pronouns to denote the gender performances of all Radchaai characters demonstrates the fallacy of gender as a strict set of masculine or feminine attributes; it is impossible to conclusively determine the gender identity of Leckie's characters from their gender performances. However, just as the analysis of *The Left Hand of Darkness* revealed a lack of women, femininity and variant gender sexuality, so too does Leckie hold variant gender performances at arm's length with the omission of any sexuality in *Ancillary Justice*.

6.3 John Scalzi's Lock In (2014)

The third chapter of the exegesis is a study of John Scalzi's problematic text *Lock In*, which presents some of the major flaws that emerge in attempted gender fluid science fiction with his take on first person gender ambiguity. *Lock In* is problematic in that it uses android bodies as a metaphor for Otherness and then sets about having those android bodies consciously modifying their behaviours to match expectations of humanity. This could be read as an excellent metaphor for the overbearing heterosexuality and gender binary facing LGBTQI individuals, and the policing of what constitutes an abiding transgender identity, were it not for the exceedingly gender-imbalanced cast of characters. To begin, Scalzi's narrating character Agent Chris Shane is never referred to with gendered pronouns but several factors strongly indicate Shane to be a male character. The first factor is the gender-imbalanced cast – *Lock In* is flooded with powerful and important male characters and only a singly female character of any note. Even the depth given to characters vastly differs by

gender as seen by the literal four pages of introduction detailing Shane's father's basketball career, political career, awards, business acumen and efforts to humanise and help patients of the fictional Hadens syndrome. Shane's mother, in comparison, is a bracketed note in her husband's introduction, which simply refers to her as the daughter of an old political family. The second factor lending credence to the probability of Shane's gender is the Scalzi's own gender paired with the first-person point of view. A 2010 experiment on texts in which participants read the same text twice with only the name and gender of the protagonist altered found that 'in both the original and modified versions, male and female readers both showed a preference for the texts with a male protagonist' (Bortolussi, Dixon & Sopcák, 2010, pp. 299-318). With this in mind, it's easy to assume that if readers prefer a male protagonist, they may automatically read Shane as male, especially when Shane is surrounded by important male characters and written by a male author. The possible relationship between an author and their work is supported by the notion that 'the explanation of a work is always sought in the man or woman who produced it' (Burke, 1995, p. 126). Scalzi's attempt at gender ambiguity in a full cast of powerful male characters thus demonstrates how a response to social and cultural patterns may instead reinforce and repeat those same social and cultural patterns. The need for critical reading allows us to separate the texts which are valuable for social progression and those that are not as it's observed that 'not all fiction by women challenges gender assumptions nor is all gender-bending necessarily feminist in its implications' (Attebery, 2002, p. 7). Lock In may attempt to bend gender but it fails to contribute to the feminist goals of equality between men, women and non-binary individuals and, furthermore, fails to evolve the discourse of gender fluid science fiction from Ursula Le Guin's Left Hand *of Darkness* more than forty years prior. *Lock In,* like *The Left Hand of Darkness* is predominantly male, privileges masculinity and unsexes gender variant characters.

6.4 Acceptable Deviations and Nothing like the Sun (2018)

All three texts seem to configure the primary focus of demonstrating that the gender identity of a character cannot be determined from characteristics of their gender performances, such as behaviours, jobs, clothing, or speech. The creative thesis Nothing like the Sun was composed both as a response to the successes and failures of the three texts studied in the exegesis and as its own contribution to the field of gender fluid science fiction. Regardless of its somewhat dystopian setting, Nothing like the Sun presents a vision of the future where masculine and feminine gender performances are not mutually exclusive and do not necessarily equate to male and female identities. To reiterate, 'the binary has not disappeared in the revisionist gender stories told by pop culture, but it has been questioned, modified and expanded' (Foss, Domenico & Foss, 2012, p. 127). If Scalzi has questioned the binary through a first-person gender ambiguous performance, then in comparison Leckie has modified it through a single neutral gender and Le Guin has expanded it with her Gethenians. In comparison, Nothing like the Sun has made similar approaches that attempt to address some of the issues with Lock In, Ancillary Justice and The Left Hand of Darkness. Nothing like the Sun questions the binary and explores first-person gender ambiguity through the subtly gender ambiguous Narrator like Lock In but backs up the Narrator with a full cast of strong men and women as well; unlike Scalzi's Chris Shane, the Narrator also has sexual and romantic characteristics, encouraging the perception of gender variance as a site for sexual desire. Where Leckie has openly modified the binary with a single neutral gender and strong themes of gender reversal,

gender ambiguity and gender erasure exemplified by the characters Seivarden, Strigan and Breq, *Nothing like the Sun* has explored these themes without openly modifying the binary. The result is gender reversal, gender ambiguity and gender erasure in the gender performances of the characters Orion, Artemis and Diana and the Narrator, set in a world only a step of two from our own; the Narrator's world is easily recognisable as ours. Lastly, where Le Guin has expanded the binary with the ambisexual androgynous gender performances of her Gethenians, *Nothing like the Sun* has sought to do the same with the character Orion. Orion is an AI whose programming was written as male, however, upon gaining sentience Orion declares that she is female. Orion's reversal of gender and her decision not to alter her robot body expands the binary to include trans identities that do not conform to the narrative of transitioning through surgical assimilation.

Nothing like the Sun also attempts to expand the gender binary via the twins Artemis and Diana. Artemis is a feminine male and Diana is a masculine female. However, certain things become apparent when attempting to write gender variant characters. Specifically, Artemis is a slender, emotional young man with long hair, who has taken on the task of caring for his elderly disabled father. In comparison, Diana has a bodybuilder's physique working a demanding labour job. She's sexually free and prone to profanity. Writing these characters has allowed me as the researcher to take note of my own ingrained ideas of masculinity and femininity via my semiotic and textual analysis of the depiction of gender in *The Left Hand of Darkness, Ancillary Justice* and *Lock In* and the original contribution of the creative artefact, which seeks to rectify the exclusions identified in the exegesis. Together, the exegesis and the creative thesis explore the trajectory of meaning making in regards to gender through the social context of fiction that actively aims to stand as the newest iteration of meaning making in the unique perspective of engaging with and deconstructing prior iterations. This is one of the benefits of a creative led research project based in science fiction, as it is observed that 'science fiction is a useful tool for investigating habits of thought, including conceptions of gender' (Attebery, 2002, p. 1). As such, my gender variant characters bear the mark of time and reflect how certain behaviours are still strongly assigned to certain genders. However, I am not suggesting that the characters within *Nothing like the Sun* could not exist as it is observed that 'you can't talk about a female sexuality, uniform, homogeneous, classifiable into codes – any more than you can talk about one unconscious resembling another. Women's imaginary is inexhaustible, like music, painting, writing: their stream of phantasms is incredible' (Cixous, 1976, pp. 875-893). This observation is reiterated in the statement that 'there is a political problem that feminism encounters in the assumption that the term women denotes a common identity' (Butler, 1990, p. 3). The task then, of feminist writing and gender fluid science fiction, 'is not to celebrate each and every new possibility *qua* possibility, but to redescribe those possibilities that *already* exist within cultural domains designated as culturally unintelligible and impossible' (Butler, 1990, p. 149). Just as you cannot talk about one set of characteristics that convey all women nor can you present one form of gender variance that encompasses all gender variant performances; the task is not to list every potential gender performance but to make room in the discourse for their possibility.

7. Significance of Research

It's important to question who benefits from this research and, as such, the people who benefit most from bringing some possible variant gender performances into the realms of 'normal' are those various at-risk gender variant individuals themselves. A 2016 study by Tebbe and Moradi (pp. 520-533) revealed that 68.5% of the studied sample of trans population met the Centre for Epidemiologic Studies requirements for depression, 71.9% had thought about suicide in the last year and 28.1% had even attempted suicide in the last year. 20.5% of participants indicated that they were likely to attempt suicide in the future. Tebbe and Moradi note that 'interventions to reduce internalized anti-trans attitudes and increase acceptance of gender identity, and interventions to expand friend support networks may be helpful strategies for attenuating depression and suicide risk' (Tebbe & Moradi, 2016, pp. 520-533). Similar results are observed by Rider: 'youth who are TGNC [Trans Gender Non-Conforming] with perceived gender expressions that are incongruent or that somewhat deviate from societal expectations for their birth-assigned sex were at higher risk for poorer health outcomes' (2018, p. 5). The results of Tebbe and Moradi and Rider 'underscore the critical need for intervention and prevention efforts to reduce depression and suicide risk in trans populations' (2016, pp. 520-533). Similar articles discussing the need for anti-trans stigma agree 'there are opportunities for resistance that may not transcend power relations but could shift them enough to make life more liveable' (Bender-Baird, 2016, pp. 983-988). With both the rise of social advocacy groups and trans and gender fluid public figures and the recent legalisation of same-sex marriage within Australia, this research is timely, disrupting gender binaries and normalising non-binary gender performances. Put simply, 'as LGBT images and representations become more mainstream, even if they are stereotypical, they become normalized as part of the broader culture' (Siebler, 2016, p. 29). As variant gender performances become more commonplace, it's also necessary to combat those stereotypical or negative depictions with positives ones. Two narrative studies of the American version of Dancing with the Stars

demonstrated how easily variant gender performances are mocked in media representation. The 2013 study of Chaz Bono's (the activist and transgender son of celebrity duo Sonny and Cher) appearance on DWTS showed how judge's commentary, costuming and song choice (chosen for Bono, not by him) repeatedly unsexed, infantilized and dehumanized him as a transgender man (Mocarksi et al, 2103). A second 2014 study of Hope Solo's (professional female athlete, Olympic gold medallist and soccer World Cup Champion) appearance explored how the narrative of the show once again disparaged a participant whose gender performance was not strictly binary. Masculine/powerful/tomboyish soccer star Hope Solo was ridiculed for her aggressiveness, powerful body language, muscular physique and inability to follow her male dance partner's lead. Her tomboyishness was parlayed as immaturity by the narrative of the show and her career accolades were downplayed in favour of her role as a daughter (Butler, 2014). This thesis seeks to challenge the master narrative of the gender binary in science fiction that continues to exclude women, femininity and gender variance as a site of sexuality, as well as the negative narratives still seen in other media that may be contributing to anti-trans attitudes.

This supports the idea that 'beliefs about gender have political, social and moral ramifications' (Foss, Domenico & Foss, 2012, p. 5). Thomas (2017) reiterates this, asserting that 'sexual [and gender] citizenship involves processes and systems of formal and informal regulations that grant (or deny) individuals and groups certain liberties, equalities, dignities, acknowledgements, and empowerments based on adherence to sexual norms' (p. 569). It is the informal regulations of the master narrative of the gender binary that this thesis studies and challenges through the representation of gender variance. Therefore, combating anti-trans attitudes and reducing depression and suicide rates is a benefit for the LGBTQI community.

8. Conclusion

This thesis consistently references the Normative, Same and Other of gender and sexuality and the explorations and subversions of gender and gender variant performances studied through deconstructing the false gender binary and semiotic analyses of the three science fiction case studies of the exegesis. The purpose of this creative-led research is, then, to determine the limits of acceptable gender variant performances; to push a social and political agenda; to provide positive representation of non-binary gender performances; to challenge gender as a keystone of identity; and to force readers to face their own assumptions of gender by building upon that which came before. This thesis seeks to critique, question, modify and expand societal conceptions to combat genderism as 'critique is understood as progress because it enables new things, or at least different things to emerge. Critique is therefore political action for the better' (Wilchins, 2004, p. 99).

The main contribution of this thesis is a study of persisting exclusions relating to representations of gender and/or gender performances in science fiction and a new contribution to the fields of gender fluid science fiction in the aim of instigating change in reader perceptions. The result 'is that the valuable concepts of becoming, fluidity, indeterminacy, incoherence and imperceptibility are integrated with, rather than set against, an effective recognition politics' (McQueen, 2016, p. 73-88). Of course, this means the success of this thesis is entirely dependent upon the reader – their subjectivities and compliance with actively engaging with the text determines its impact. However, the network of practices surrounding the creative thesis sees a rising willingness to consume texts that challenge the gender binary. This network of practices has been observed in a slow but steady increase in media concerned with

LGBTQI identities, from trans memoirs to statistical studies to trans or gendernonconforming celebrities such as Laverne Cox, Eddie Izzard, and David Bowie. The time, now, is overdue to make culture accessible by and related to variant gender performances, hence the creation of *Nothing like the Sun*, which was written for both that purpose and to respond to that which came before.

The results of the exegesis are many-layered. Firstly, representations of variant gender performances are improving over time as the discourse evolves. Beginning with Le Guin's 1969 The Left Hand of Darkness, representations of gender variance in science fiction were still heavily stained with the ideas of masculinity and femininity of the time. Femininity was still strongly excluded and derided in masculine or male characters and the masculine pronoun still represented the neutral. The Left Hand of Darkness, with its harsh derision of femininity, encourages us to ask who is missing from the discourse. Moving into the 21st Century, Scalzi and Leckie respectively demonstrated a failure and a success in evolving the discourse. Scalzi's Lock In, with its obvious omission of women, demonstrates no evolution from The Left Hand of Darkness, more than forty years prior. The necessity for textual analysis is noted that 'in the absence of rigorous interrogation of what we see/read/consume, binaries of sex/gender/sexuality are reinforced instead of questioned and queered' (Siebler, 2016, p. 155). Scalzi, with his scant offering of two-dimensional female characters only succeeds in reinforcing the dichotomous master narrative of men as characters and women as plot pieces. In comparison, Ancillary Justice has innovatively reversed the master narrative and instead placed women in the foreground with her subversion of the female pronoun as neutral. Ancillary Justice, does, however, make us question the lack of sexuality in gender fluid science fiction. Trace elements of sex exist in these three texts: from the sexual and oestrous cycle of Le Guin's Gethenians which never includes the heterosexual and cisgender (human) Genly; to Scalzi's narrator, inhabiting a sexless android body and never engaging in sexual or romantic activities either as an instigator or recipient; to Leckie's AI Breq and the alien societies of *Ancillary Justice*, sex is so far removed from the narrative. The current discourse of gender variance in science fiction seems to be inviting the non-binary to the table, but not the bedroom.

The results of *Nothing like the Sun* take several forms, the first of which is a new understanding of my own internalised conceptions of masculinity, femininity and gender variant behaviour. The bonus of this, however, is that the creative approach allows a process of revision. Many of the results of Nothing like the Sun have come about because of the understandings gained from the exegesis. In comparison to Leckie, Scalzi and Le Guin, Nothing like the Sun has included femininity, women and sex in the discourse. With feminine men and women, a gender-balanced cast including important female characters, and a gender-ambiguous Narrator engaging in sex and romance with both men and women, the creative thesis has brought bisexuality into the foreground of gender fluid science fiction. If a reader assumes the Narrator to be male or female then one of their relationships must be read as homosexual and one as heterosexual; gender variance and sexual variance are inescapable in Nothing like the Sun. Together, the exegesis and creative thesis allow us to examine the trajectory of the gender binary in science fiction and take note of what attitudes continue to persist. With the contribution of Nothing like the Sun evolving the discourse, this study invites new research of gender fluid science fiction that may reveal what next step is needed to bring LGBTQI identities out of academic arcana and into everyday culture. Furthermore, the three texts and the creative thesis share a common conclusion whereby so-called gender markers like masculine or

feminine behaviours do not necessarily denote a male or female gender performance. It impresses upon the reader the lack of correlation between sex and gender. This is a benefit not only for gender variant individuals by normalising their gender variations as an acceptable way to perform their gender identity but also for cisgender men and women by relaxing the gender dichotomy.

The significance in these results can be observed in the emerging patterns of the surrounding network of practices. Throughout the academic discourse regarding the gender binary, certain important observations emerge time and time again. One is the pervasive social and cultural suffering non-binary individuals face as a result, Butler says, of their 'failure to repeat, a de-formity, or a parodic repetition that exposes the phantasmic effect of abiding identity as a politically tenuous construction' (Butler, 1990. p. 141). The gender binary is a construction that has immense social, political and cultural ramifications for the people who fall outside it. The time is now for the LGBTQI community to move out of academic discourse and into the public sphere as it is believed 'as queer theory retreated further into academic arcana, it became of increasingly less use to the people who needed it, including psychosexual minorities and activists trying to change society' (Wilchins, 2004, p. 1). The significance of this thesis thus lies in exploring who is still missing from the discourse and bringing the discourse into the public and cultural sphere. It must be acknowledged that 'it may not be possible, outside the realm of fiction, to overcome innate and cultural patterns that result in some of us getting the short stack, but it certainly seems worth trying' (Attebery, 2002, p. 149). Accordingly, the rationale for this exegesis with its accompanying creative artefact is summed up in one of the four reasons George Orwell gave for why he wrote. Reason four, was, as such;

Political purpose — Using the word "political" in the widest possible sense. Desire to push the world in a certain direction, to alter other peoples' idea of the kind of

society that they should strive after. Once again, no book is genuinely free from political bias. The opinion that art should have nothing to do with politics is itself a political attitude. (Orwell, 1946, n. p.)

'Gender Fluid Science Fiction' and *Nothing like the Sun* exist to broaden understandings of gender performances, both real and fictional.

Chapter One: Societal Androgyny in Ursula Le Guin's The Left Hand of Darkness (1969)

Introduction

The first chapter of the exegesis is a textual analysis of how Ursula Le Guin's The Left Hand of Darkness represents non-binary gender performances in science fiction and what gender performances are omitted. The role of The Left Hand of Darkness in this thesis is to stand as the chronological 'starting-point' for representations of gender fluid science fiction; more recent representations of gender variance in science fiction should demonstrate an evolution from and improvement of Le Guin's 1969 text. As March-Russell says (2018) 'Le Guin helped to initiate that debate. [...] The Left Hand of Darkness (1969), although criticised by successive critics for not going far enough, critiqued the conventions that had constrained her earlier novels, in particular, the silent convention that readers – whether male or female – read from the point of view of the male gaze' (p. 18). This thesis actively engages with The Left Hand of Darkness and subsequent gender fluid science fiction texts to create the creative thesis *Nothing like the Sun*, an original contribution to the field, which acts as a transformation stemming from not only The Left Hand of Darkness but also Ann Leckie's Ancillary Justice and John Scalzi's Lock In. As March-Russell further observed 'although Le Guin's handling of hermaphroditism may now seem dated in the light of more recent trans debates, it nevertheless remains a cornerstone for contemporary sf, most notably Ann Leckie's Ancillary Justice' (2018, p. 3-4). The Left Hand of Darkness is thus arguably the mother of gender fluid science fiction but a semiotic analysis reveals a constant disparagement of women and femininity and an unsexing of the non-binary alien Gethenians (the Other). The creative thesis Nothing *like the Sun* seeks to revise Le Guin's explorations and raise women, femininity and

non-binary characters to be equally as valuable gender identities and performances and introduce gender variance as a site of sexual desire.

Note on The Left Hand of Darkness and Ursula Le Guin

Before delving into the study of *The Left Hand of Darkness* two things must be noted. Firstly, there is a difference between Le Guin's opinions as the author and the misogynistic opinions of Genly Ai, the narrator. Secondly, it must be noted that Le Guin has attempted to rectify the misogyny of *The Left Hand of Darkness* in later texts, most notably the short story 'Coming of Age in Karhide'.

The Left Hand of Darkness has been long criticised for its perceived misogyny - two common criticisms are the use of male pronouns to refer to the androgynous and ambisexual Gethenians and that only heterosexual relationships are observed. However, it is important to recognise that the viewpoints of Genly Ai the narrator are not necessarily the viewpoints of Le Guin the author. Aizura (2017) notes the difficulty of this, observing that 'Left Hand attempts to create a line of flight out of the normativity of the 1960s American Dream [...] Sometimes this attempt works, and sometimes the book (and we as its readers) remain stuck. Often these two things happen at the same time, and thus they are difficult to disentangle' (n.p.). This sentiment is echoed by cárdenas [stylised], who chooses to describe The Left Hand of Darkness as 'brilliant and powerful [...] in a way, Le Guin imagined a trans world through the character of a cisgender observer on that world' (2017, n.p.). Le Guin has performed a thought experiment to relegate the binary to the realm of Other and instead normalise that which we perceive as alien but this experiment is often complicated by the language and perceptions of the time it was written, which can be perceived as misogyny. However this is not necessarily a flaw but a feature as it allows for reflection, growth and experimentation. The creative artefact of this thesis

thus seeks to work in conversation with *The Left Hand of Darkness* and the other texts of the exegesis, rather than act as a supplantation.

Secondly, Le Guin has publically recognised these criticisms and, over time, attempted to redress them – most notably in her 1995 short story 'Coming of Age in Karhide', which Smillie (2017) describes as 'a satisfying revisit to Gethen' (n.p.). In 'Coming of Age in Karhide', Le Guin continues to avoid an invented pronoun for the ambisexual androgynes, choosing instead to carefully refer to characters by name or relation to the central character. As Smillie observes, this short story reiterates Le Guin's 'commitment to her creative practice as an exploration of other worlds and other/ed social configurations. These texts also reflect larger shifts in feminist thinking and broader cultural changes' (2017, n.p.). In this instance Le Guin herself has acted in conversation with *The Left Hand of Darkness*, reflecting upon the reception of her prior text and broader cultural changes by attempting to better engage with non-binary performances in science fiction narratives. However, this first chapter of the exegesis is focussed on *The Left Hand of Darkness* as the first novel-length mainstream iteration of (see Introduction section 6: Rationale for Text Selection).

The Left Hand of Darkness Synopsis

The Left Hand of Darkness follows a year in the life of the human Envoy Genly Ai on the alien world Gethen. Gethen is a society of people who are androgynous for 21 days of their 26-day sexual and oestrous cycle but have an ambisexual potential. For these 21 days, individuals are neither male nor female and are said to be in *somer*, meaning they are sexually inactive. For the remaining five days of their sexual cycle, Gethenians enter *kemmer* and either a female or male hormonal dominance tips the balance. Any Gethenian may become male or female and may sire or conceive a child. If the Gethenian conceives, he (for the main narrator Genly refers to all Gethenians with male pronouns,) remains female for the duration of the pregnancy and lactation period. 'With the cessation of lactation, the female re-enters somer and becomes once more a perfect androgyne. No physiological habit is established, and the mother of several children may be the father of several more' (Le Guin, 2010, p. 97). What must be noted, however, is that Gethen is a matriarchal society and though a Gethenian may sire a son and name that son his heir, this is only done if he has no sons of the body – sons that he conceived, carried and birthed while in the female role of kemmer. So whilst Gethen may present a society of androgyny, this society is a matriarchal one. The narrative of The Left Hand of Darkness follows human envoy Genly Ai's story as he falls into political disfavour and is imprisoned. The Gethenian Estraven later rescues him and the two undertake a perilous journey across Gethen's wintry landscape to safety. Genly mistrusts Estraven's ambiguous gender and initially finds the Gethenian's ambisexual androgyny distasteful but comes to accept and appreciate Estraven's characteristics, be they bravery, planning and rationing, or as Genly has described Estraven's various behaviours, 'scientific' and 'housewifely'.

Limitations of Language

What must also be taken into account is the narrator Genly's manner of defaulting-tomale when referring to the ambisexual Gethenians. This is problematised in the exploration of insular male-dominated norms and the perceptions in language. A comparison exists in the use of 'gay' for both male and female homosexuals and the use of 'he' for all people: 'to use "gay" as a universal term to include both gay men and lesbian women uses "male" as the universal norm and erases female/lesbian from the worldview, not unlike using a universal "he" to refer to people' (Siebler, 2016, p. 24). Le Guin's use of the male pronoun not only insulates men as the Normative and erases women but forces the 'Other' Gethenians to conform to the role of Same/Normative. Le Guin has faced a long-standing backlash in the form of 'a critique of the perceived limitations of her female characters and her inclination toward an overall "maleness" in her portrayal of androgynes,' (Klarer, 1992, p. 107-121). These limitations are also noted by Calvin (2016) who observes that 'Englishspeaking human readers find it difficult to understand [the Gethenian] Estraven as anything other than a man' (p.219) because of Le Guin's choice in pronouns. Le Guin herself notes and accepts these criticisms, as she says 'I now see it thus: Men were inclined to be satisfied with [The Left Hand of Darkness], which allowed them a safe trip into androgyny and back, from a conventionally male viewpoint.'(Le Guin, 1988, pp. 155-72). However, the overall 'maleness' of her androgynes is not without value – with Genly speaking only in male-pronouns, it is not the androgynes which are alien to the reader, but women; their absence becomes a signifier in itself. This serves as a reversal of circumstances as a non-binary gender is now the Normative and a 'normal' gender is now Other; this Othering of women is one of the major studies of the depiction of gender fluidity in Ursula Le Guin's The Left Hand of Darkness and is informed by Herzog's Discourse Analysis as Social Critique (2016), recent interpretations of Bhabha's third space theory (2004, originally published 1994) and Simone de Beauvoir's use of 'Other' in The Second Sex (1949). This Othering of women, along with the default-to-male matriarchal society and Genly's journey of acceptance of the ambisexual androgynes, completes the three major facets of variant gender in science fiction for study posed by The Left Hand of Darkness. All of this can be achieved through the medium of science fiction and the concept of thoughtexperiments as science fiction 'includes facets that make it a desirable space for

gender and sexuality debate. Two of these qualities are extrapolation and defamiliarisation' (Pluretti, 2015 p. 1). Le Guin extrapolates non-binary genders into an alien Other society and then defamiliarises the feminine half of the Normative to make that Other society conform to ideals of the masculine half.

The Experimental Nature of Science Fiction

Le Guin herself posits that *The Left Hand of Darkness* and science fiction in general is comprised of thought experiments as she says in 'Is Gender Necessary? (1976) Redux (1988)';

I was not recommending the Gethenian sexual setup: I was using it. It was a heuristic device, a thought experiment. Physicists often do thought-experiments. Einstein shoots a light ray through a moving elevator; Schrödinger puts a cat in a box. There is no elevator, no cat, no box. The experiment is performed, the question is asked, in the mind. Einstein's elevator, Schrödinger's cat, my Gethenians, are simply a way of thinking. They are questions, not answers; process, not stasis. One of the essential functions of science fiction, I think, is precisely this kind of question-asking: reversals of a habitual way of thinking, metaphors for what our language has no words for as yet, experiments in imagination. The subject of my experiment, then, was something like this: Because of our lifelong social conditions, it is hard for us to see clearly what, besides purely physiological form and function, truly differentiates men and women. (Le Guin, 1988, pp. 155-72)

Here, Le Guin is explaining how science fiction can help to argue that sex and gender are two distinct categories and one does not determine the other. Further, when it comes to gender there is little difference beyond physical sex that actually separates men and women. Behaviours are not inherently masculine or feminine until taken into context of physiological sex at which point it becomes part of a person's gender performance. When observed without the physical markers of sex, a person's gender is simply the sum of their repeated motifs and performances and this expression cannot be limited to a simple binary based on physiological sex. Gendered performances combined with congruent physical markers of sex constitute the Normative pole of the gender binary. These markers then configure the Other, through absence as much as presence, and create chaotic and also productive slippages between sex and gender:

The mark of gender appears to "qualify" bodies as human bodies; the moment in which an infant becomes humanised is when the question "is it a boy or girl?" is answered. Those bodily figures who do not fit into either gender fall outside the human, indeed, constitute the domain of the dehumanised and the object against which the human itself is constituted. (Butler, 1990, p. 111)

Genly, as the human, is the Normative and the androgynous ambisexual Gethenians are alien and Other of this science fiction tale and The Left Hand of Darkness explores a society of reversals - a society in which the Other is the Normative. Le Guin argues for the use of science fiction as this tool of theorising different social constructs 'by offering an imagined but persuasive alternative reality, to dislodge [her] mind, and so the reader's mind, from the lazy, timorous habit of thinking that the way we live now is the only way people can live' (pp. 218-220). Le Guin thus presents three thought-experiments in her 1969 gender fluid science fiction text The Left Hand of Darkness - the contrast of a matriarchal society of exclusively men, kings, sons and male pronouns; the metaphor of female as alien and male as neutral/universal; and, most importantly, the acceptance of the true androgynous gender of the Gethenians. As Le Guin says (2004), 'we will not know our own injustice if we cannot imagine justice. We will not be free if we cannot imagine freedom' (pp. 218-220). As such, this study of The Left Hand of Darkness will be broken into three major components -a matriarchy of men; Othering women; and accepting the non-binary. In this paper and in my thesis as a whole I am studying the trajectory of the representations of non-binary genders in science fiction, discovering what identities continue to be excluded from this field and addressing this lack in the creative thesis Nothing like the Sun.

1. Debating Male Pronouns as Neutral: The All-Male Matriarchy

The main narrating character Genly Ai (the only human and 'man' rather than alien and ambisexual 'manwoman' in the text) refers to all Gethenians as men and with male pronouns and this is one of the primary signifiers used to Other and exclude women in The Left Hand of Darkness. Le Guin herself deliberately chose to use male pronouns, as she says in 'Is Gender Necessary?' (1976) Redux (1988), that 'the central failure in this area comes up in the frequent criticism I receive, that the Gethenians seem like *men*, instead of menwomen. This rises in part from the choice of pronoun. I call Gethenians "he" [...], "he" is the generic pronoun' (Le Guin, 1988, pp. 155-72). In the 1998 Redux, Le Guin adds that, 'until the sixteenth century the English generic singular pronoun was they/them/their, as it still is in English and American colloquial speech' (Le Guin, 1988, pp. 155-72). Although Le Guin has received criticisms over the overwhelming 'maleness' of her androgynes, I would argue that the resulting Othering of one half of the gender binary 'Normative' (women and femininity) better serves to highlight the attitudes toward non-binary genders in real-world circumstances by standing in as metaphor for those non-binary genders. Bhabha theorises the third space as the space between Same and Other and in this instance, the Same (the recognisably female half of the Normative) and the Other (non-binary identities) have come together in that theoretical third space to demonstrate the societal reception of Other identities by Othering one half of the Normative and stressing the value of the remaining maleness and masculinity. This overwhelming maleness is problematic in that it fails to depict a truly androgynous character and thus fails to provide representation for non-binary genders. It spreads the message that androgynes are basically men. It's a difficult position to be in - Le Guin's Gethenians are androgynous in name only – and although another reader may have a different reader response, to my interpretation, every single Gethenian is undeniably male. Their overarching maleness can be observed in the attitudes the Gethenians and Genly have toward stereotypical female traits, which is covered in the "Othering" Femininity' section of this chapter. In defence of Le Guin, Lothian (2006) acknowledges that Le Guin's formulations of gender evolved over her lengthy career: 'Le Guin's feminism transforms as she struggles to give representational space to voices and viewpoints she had previously, inadvertently erased; her feminist awakenings are not single or simple but ongoing and continually re-evaluated' (p.381). Lothian further observes that Le Guin later displays an understanding that the binary archetypes she understood as 'fundamental, essential truths grew to seem more like arbitrary and contingent social constructs' (p. 381). In this regard, Le Guin does later work against her early formulations of gendered performances and the exclusions that resulted, exclusions that form the starting point of non-binary gender performances in science fiction.

1.1 Contrasting Formulations of Universal Gender

Along the same vein, Le Guin's all-male matriarchy and the use of 'he' as neutral must be contrasted with Ann Leckie's use of 'she' in *Ancillary Justice* for the same purpose; this is explored in the next chapter, 'Third Person Gender Ambiguity in Ann Leckie's *Ancillary Justice* (2013)'. *The Left Hand of Darkness* has been studied under the observation that 'women writers offer, instead of the traditional male gender of narration, gender reversed, gender ambiguous or gender erased' (Donawerth, 1996, p. 176). If Leckie has reversed the neutral pronoun from 'he' to 'she', made a society gender-ambiguous through a single neutral gender and erased the gender of the narrating character, then Le Guin can be said to have reversed androgyny to the

Normative and relegated women to the Other, created a gender-ambiguous society, and erased femininity. What Leckie put into practice (representations of non-binary genders), Le Guin saw through to its (hopeful) conclusion – acceptance. The representation and acceptance of positive non-binary gender performances in science fiction is the aim of this thesis and Le Guin achieves this with Estraven, as will be further discussed in this paper. However, *The Left Hand of Darkness* is problematic in its persisting derision toward women and femininity and as the first text studied in this exegesis it sets the starting point and tone of exclusion that the other two texts and *Nothing like the Sun* must address.

It is difficult to imagine how Le Guin's 1969 text *The Left Hand of Darkness* would have been received, had she made the same choice as Leckie more than 40 years later and posited female pronouns as neutral. Le Guin also addresses her use of male pronouns in the text, in the form of an earlier Envoy's report of the Gethenian people and their unusual physiology and ambisexual androgyny. As Le Guin's only female character says in the single scant passage in which she appears:

You cannot think of the Gethenians 'as "it". They are not neuters. They are potentials or integrals. Lacking the Karhidish "human pronoun" used for persons in *somer*, I must say "he," for the same reasons as we used the masculine pronoun in referring to a transcendental god: it is less defined, less specific, than the neuter or feminine. But the very use of the pronoun in my thoughts leads me continually to forget that the Karhider I am with is not a man but a manwoman. (Le Guin, 2010, p. 101)

Le Guin uses the male pronouns as neutral to bring a representation of nonbinary gender into the realms of the Same and although this is problematic as it fails to present gender as a fluid or multiplicity, it does succeed in Othering one half of the binary through signifying maleness as the universal. By bringing the Gethenians into the world of the Same and consequently Othering women (discussed further in this chapter) Le Guin has still demonstrated how the roles of the binary can very easily encompass many more gender identities than just male and female, even if her demonstration has excluded women and femininity from the discourse. The power of The Left Hand of Darkness lies in its function as science fiction: 'the genre's storytelling conventions encourage writers to ask questions about the biological basis of sexual division and allow them to explore alternative formulations of society and the individual psyche' (Attebery, 2002, p. 4). Le Guin thus poses several thought experiments under the parameters of an all-male alien society – what biases might a person exhibit if faced with androgynes lumped into the ill-fitting category of 'men'? How might that person's journey of acceptance look? What happens to the feminine aspects of an androgyne's personality if the observer refuses to see them as anything but men? A trend of science fiction has emerged in that 'some best sellers from pop culture rewrite the binary by presenting a new gender that includes elements of both the conventionally feminine and conventionally masculine' (Foss, Domenico & Foss, 2012, p. 128). This rewriting both prompts and is prompted by questions such as, 'can we imagine a society devoid of these stringent and stereotypical gender and sexuality roles, and if so what would this society look like, and how do we create futures that give voices to the Other?' (Pluretti, 2015 p. 1). With this in mind, attention must be drawn to the overbearing 'maleness' of Le Guin's so-called ambiguously gendered characters but Le Guin at least succeeds in positing women as Other by forcing her ambiguously gendered characters to fill the role of Male when their conventionally feminine elements are derided. This is not to say that either half of the gender binary is essential, merely that Le Guin's exclusion and derision of femininity has privileged the masculinity of her Gethenians without supporting the notion that masculinity does not necessarily denote maleness. However, Le Guin does posit an acceptance-of and coming-to-terms with a strong and positive non-binary gendered character, even if that character does undergo a period of misgendering and hostility. Despite the

positivity of this acceptance, *The Left Hand of Darkness* sets the limits for gender fluid science fiction and that limit excludes women, femininity and the intersection of sex with gender variance.

1.2 Character, Reader and Author Subjectivities

Le Guin's manner of placing the Other (androgyny) into the realms of the Same (men) and thus creating a matriarchy of men is problematic in that whilst it does achieve that reversal of gender by Othering the Normative of women and Normalising the Other of androgynes, it does so by presenting aliens who are androgynous in name only - Le Guin's Gethenians are men. It is argued that 'in each of these cases, however, it is possible to force the character into a more conventional category: by the story's end, the author or reader (or both in collusion) discovers the 'real' gender of the characters and reinterprets events accordingly' (Attebery, 2002, p. 9). This is less than ideal as her Gethenians are not a true or convincing account of androgyny or even any gender other than men, yet Genly's eventual acceptance of them as they are (menwomen, not men) does present non-binary genders and that journey of acceptance in a positive light. What value can researchers derive from Le Guin's thought experiments? Some value lies in bringing the possibility of gender variance into popular culture and writing a successful and positive journey of acceptance but this has set the tone for future texts and this tone excludes women and femininity. The journey of acceptance and this exclusion must first begin with Genly's seemingly unconscious rejection of the Gethenians as ambisexual androgynes and his Othering of half their identities – their femininity.

2. 'Othering' Femininity

2.1 Perceived Feminine Signifiers

Le Guin has conducted a complicated thought-experiment of a matriarchal world of societal androgyny depicted entirely through male pronouns. This thought-experiment could only be conducted in the realms of science fiction. However, what can be discovered through a semiotic analysis of *The Left Hand of Darkness* is that Le Guin has subverted the expectations of the readers and it is not the androgynous ambisexuals which are alien, but women. The results of this are both positive and negative – by Othering the femininity of the Gethenians, Le Guin sets the tone of exclusion in non-binary gender performativity in science fiction, but she also demonstrates a successful journey of acceptance of gender variance. From Le Guin's use of the default-to-male matriarchy, the denigration of femininity and the medium of science fiction to conduct a thought-experiment, the reader unconsciously begins to relegate women and femininity to the realms of the Other.

It is Genly's account of femininity in the ambisexual Gethenians that Others women; his derision towards feminine aspects in the Gethenians and use of male pronouns are signifiers of the privileging of maleness/masculinity. Though Genly understands that the Gethenians are not men, he still refers to them with the male pronouns 'he/him', and when those same Gethenians exhibit femininity, Genly is harshly critical. This is because those Gethenians are transgressing the gender roles that Genly has assigned to them. Exhibiting anything remotely female is unnerving for Genly. Take, for example, Genly's musings as he considers that the Gethenian people have no war, no armies and slow technological progress: 'they lacked, it seemed, the capacity to *mobilize*. They behaved like animals, in that respect; or like women. They did not behave like men, or ants' (Le Guin, 2010, p. 51). According to

Genly, a female gender performance is signified by its animalistic lack of mobilisation, unlike men and ants, which have that capacity. Genly also takes note of the Gethenian who rents him accommodation, noting that 'I thought of him as my landlady, for he had fat buttocks that waggled as he walked, and a soft fat face, and a prying, spying, ignoble, kindly nature [...] he was so feminine in looks and manner that I once asked him how many children he had' (Le Guin, 2010, p. 50). Women and feminine traits, in this regard, are not depicted kindly or positively in any sense; being a fat and nosy child-bearer signifies a female identity and feminine and female gender performances lie outside the limits of acceptability. Genly goes on to disparage anything resembling femininity as, when he is later imprisoned, describes the guards as 'stolid, slovenly, heavy, and to my eyes, effeminate - not in the sense of delicacy, but in just the opposite sense: a gross, bland fleshiness, a bovinity without point or edge' (Le Guin, 2010, p. 189). All of Genly's ingrained understandings of what signifies femininity serve to posit femininity as something other and wrong, as femininity does not fit with his default-to-male view of the Gethenians. It must be noted that Genly is not disparaging toward human women, only Gethenian 'men' exhibiting 'feminine traits', as made clear when Genly is discussing the differences between human men and women with the Gethenian Estraven:

I suppose the most important thing, the heaviest single factor in one's life, is whether one's born male or female. In most societies it determines one's expectations, activities, outlook, ethics, manners – almost everything. Vocabulary. Semiotic usages. Clothing. Even food. Women... women tend to eat less... It's extremely hard to separate the innate differences from the learned ones. Even where women participate equally with men in society, they still after all do all the childbearing, and so most of the child-rearing. [...] They don't often seem to turn up mathematicians, or composers of music, or inventors, or abstract thinkers. But it isn't that they're stupid. (Le Guin, 2010, p. 253)

From this, the reader can determine that Genly has no major issue with women themselves, however, he has issues with those he perceives as 'men' (the Gethenians) signifying the features of 'women'; Genly has issues with alternative gender performances that lie outside what he considers acceptable variations.

2.2 Gendered Reading

It's observed that *The Left Hand of Darkness* 'evokes a powerful individual reader response because each reader must define his or her inner space where gender finds its own ideological space; the novel requires readers to resist a gendered reading of the narrative' (Pennington, 2000, p. 351). This response is individual for each reader and this chapter of the exegesis is focused primarily on the Othering of women in the societal androgyny of Le Guin's *Left Hand of Darkness* to force a reassessment of internal attitudes toward non-binary genders and set the tone of exclusion in gender fluid science fiction.

This Othering of women, this subversion of expectations and forcing the nonbinary into the realms of binary has been understood that the use of the male pronoun as neutral is related to the male gender of the narrating character Genly Ai, 'Genly is a man, the masculine pronoun is his. His use of "it" keeps the Gethenians at arm's length. His use of "he" keeps this world of Others in the realm of the Same' (Larbalestier, 2002, p. 103). Genly's use of male pronouns forces the ambisexual androgynes into the role of Same, the role of men but as a result, forces their feminine traits into the role of Others. This is because Genly forces the reader to partake in a gendered-reading – Genly makes the decision for the reader to ignore the Gethenians non-binary gender and instead imposes his notions of the role of 'men' onto them. What his gendered reading achieves is an Othering of half the identity of the ambisexual androgynous Gethenians, encouraging the reader to reassess their beliefs of gender as a binary and attitudes toward non-binary genders as something 'wrong.' Referring again to Klarer where he states that Le Guin has faced backlash in the form of 'a critique of the perceived limitations of her female characters and her inclination toward an overall "maleness" in her portrayal of androgynes' (Klarer, 1992, pp. 107-121) it is obvious that Le Guin's androgynous Gethenians are overwhelmingly (subjectively) masculine. Admittedly, Le Guin's Gethenians really are lacking any convincing or positive femininity, however, it can be argued that this lack of any real or positive femininity serves several purposes in Le Guin's gender fluid science fiction. This lack of any positive femininity Others one half of the gender-binary by presenting that binary as a singularity; this encourages the reader to tread along in Genly's footsteps as he come to term with the fact that the Gethenians are not men, but menwomen and something apart from the gender-binary, encouraging a reconsideration of gender as a binary at all. Othering women (one-half of the accepted Normative) forces the reader to reassess their attitudes towards non-binary genders as the 'familiar' is critiqued. Whilst Genly's consistent denigration of the Gethenian people displaying feminine traits may be frustrating for the reader, it signifies the denigration non-binary genders face in real-world circumstances and makes Genly's eventual acceptance of the Gethenian people as neither men nor women but menwomen all the more poignant. The Left Hand of Darkness reflects the time period of its production and sets the starting point from which other gender fluid science fiction texts should seek to evolve.

2.3 The Third Space Reversal

Le Guin has posited with *The Left Hand of Darkness* a reversal of sorts – by forcing the ambisexual androgynous Gethenians into the role of 'men', she and Genly have normalised this alien 'male' matriarchal society and Othered the 'normal' (women)

and forced the reader to wonder what basis gender has as the deciding factor on whether it is acceptable for a person to perform certain behaviours. This is made possible in science fiction, where it has long been argued that 'writers use science fiction and fantasy to create utopias and dystopias and to invent social systems that deal with sexuality in a variety of ways. In doing so, these authors say a great deal about our own commonplace cultural views of variant sexuality' (Garber & Paleo, 1990, p. vii). It seems that Le Guin's invented Gethenians have a lot of hidden signified messages about the physiological basis for deciding if behaviours are feminine or masculine and, by extension, what sort of bodies may depict those behaviours and therefore what bodies and behaviours are thus not acceptable. This Othering of femininity serves as metaphor for the reader – by casting the female half of the Normative as gross, unappealing and wrong, Le Guin has encouraged the reader to reassess their opinions toward non-binary genders and questioned the use of the gender binary as the basis for what is normal, as well as Genly's decision to force the Other Gethenians into the male half of the Normative. Le Guin has demonstrated the 'false opposition' of the binary system which 'inevitably elevates one of its poles to privilege and antagonises the other (Linstead & Pullen, 2006, pp. 1287-1310). Le Guin, through Genly, elevates masculinity and antagonises femininity through the third space of the Other Gethenians. What makes this reversal of Normative to Other a valuable part of the field of gender fluid science fiction is Genly's eventual acceptance of the Gethenians' true identity – not as men, not as men with repulsive female characteristics, not as weak men, but as valid and valuable ambisexual menwomen, distinct from the Normative binary poles of men and women.

3. Acceptance

3.1 Subjective Conceptions of Maleness/Femaleness

Genly's journey of acceptance is best seen in his relationship with Therem Harth re ir Estraven, the former Prime Minister of Karhide. The reader's first introduction to Estraven is as a shrewd politician who frustrates Genly with his strict adherence to shifgrethor (political double-speak, a manner of saying without speaking and talking in hints and reading between the lines of what is and is not said). As has been mentioned, my reader response sees me incapable of interpreting any of the Gethenians as anything but men and perhaps this is due in part to Genly and Le Guin's use of the male pronouns and the overbearing 'maleness' of Le Guin's androgynes. However, as the reader I must ask myself – how can an insane pregnant king signify femaleness? How can a Gethenian dying of renal failure in a prison signify femaleness? How can a shrewd politician with a great mind and guarded heart signify femaleness? Part of this must be attributed to my own preconceived notions of what signifies maleness and femaleness - even I, having written a gender-fluid science fiction text concerned with evolving the representations of gender in science fiction, struggle to divorce my notions of what is male and what is female when reading The Left Hand of Darkness.

Le Guin expresses these preconceived notions of masculinity and femininity through Genly's observations of Estraven. Estraven demonstrates how the same behaviour can signify different genders if the body performing the action is seen as male or female: over time, after spending weeks barely surviving crossing the frozen wastelands, Genly begins to acknowledge that Estraven may be something Other than a man. Take, for instance, Genly's observation of Estraven's careful considerations of their shared rations; as a human, Genly is taller and more muscular than Estraven the Gethenian and Estraven has prepared their rations portion-sizes accordingly. As Genly describes, 'Estraven had figured these differences into the food-ration calculations, in his scrupulous way, which one could see as either house-wifely or scientific' (Le Guin, 2010, p. 259). If one is to interpret Estraven as female, his considerations of their different caloric needs signify a 'house-wife' gender performance, if Estraven is male, his 'scientific' calculations signify a male gender performance. This is the first instance in which Genly seems to begin considering Estraven's gender performance as something Other, permitting those feminine traits in Gethenians as acceptable (if not described positively). This of course raises several questions about the assumption of sexed bodies as the grounds for certain behaviours – can a man not be housewifely? Can a woman not be scientific? Can a person not be both? If a person is something Other than a man or a woman, what sort of relationship can you build with them?

This interpreting of Estraven's actions as if performed by two different people is a step forward from the beginning of their journey where Genly still sees Estraven as a man lesser than himself. He describes Estraven as 'a head shorter than I, and built more like a woman than a man, more fat than muscle; when we hauled together, I had to shorten my pace to his, hold in my strength so as not to out-pull him: a stallion in harness with a mule' (Le Guin, 2010, p. 235). Estraven's ambiguous body and gender performance instils derision in Genly and initially signifies to the reader that to be Other is to be lesser and animalistic.

3.2 Real Men, Not-Real Men, Real Women and Not-Real Women

One categorisation of gender in science fiction observes that 'many texts tell of two sexes engaged in warfare, many also tell a story in which there is a multiplicity of sexual bodies. Some posit at least four: real women, real men, not-real men and notreal women' (Larbalestier, 2002, p. 44). Here, Larbalestier describes the segregation of 'realness'/acceptable gender performances and 'not real'/unacceptable. In turn, Yaszek (2003) traces the roots of feminist critique of representation in science fiction, observing that 'in 1971 Joanna Russ proposed that there were no real or well-rounded women in science fiction; rather, SF authors-male and female alike-typically relegated female characters to what she called "galactic suburbia," [motherhood/housewifely duties]' (p. 97), essentially placing feminine women in the realm of 'unacceptable'. Where Larbalestier posits that some gender performances are depicted as 'unacceptable', Yaszek also objects to Russ' derision of feminine/motherly/housewifely depictions of women. The references to Larbalestier and Yaszek describe the challenges of both Other gender performances ('unacceptable/not real') and Normative gender performances (feminine women) and frame the beginning of Genly's journey of acceptance. Together, Yaszek and Larbalestier describe the exclusions this thesis has observed in gender variant science fiction, primarily the exclusions of women and femininity with a prioritisation of 'real' men and masculinity. Genly is the real man and Estraven (and the Gethenians) are not-real men; real women do not exist on this planet and Genly shuns not-real women (Gethenians exhibiting motherly/housewifely femininity) for blurring the line between men and women. These are questions Genly himself seems to consider in relation to Estraven during their long, lonely journey together, as he asks himself:

What is a friend, in a world where any friend may be a lover at a new phase of the moon? Not I, locked in my virility: no friend to Therem Harth [re ir Estraven], or any other of his race. Neither man nor woman, neither and both, cyclic, lunar, metamorphosing under the hand's touch, changelings in the human cradle, they were no flesh of mine, no friends; no love between us. (Le Guin, 2010, p. 229)

By Othering femininity (and, by extension, real women and not-real women), the only genders left on Gethen are the Gethenians (not-real men) and Genly (a real man). As the only Real Man on the entire planet, Genly himself becomes Othered – his 'always-in-kemmer' body repulses the Gethenians - he is labelled a Pervert. With this, Le Guin has posited with *The Left Hand of Darkness* another reversal of sorts – it is the ambisexual and oestrous Gethenian people who are the norm and all-male 'always-in-kemmer' Genly who are 'Perverted' and alien. This is also seen when one Gethenian refers to another who, for whatever reason, is stuck in permanent *kemmer*: 'Goss used the pronoun that designates a male animal, not the pronoun for a human being in the masculine role of kemmer' (Le Guin, 2010, p. 67). By positing a single gender as alien and animalistic, Le Guin and the Gethenians force a comparison of our current gender binary as akin to that of animals. The reader and Genly are guided along a journey of thought experiments, of considerations of what it is that makes a person Male or Female or Other or both, of understanding that a person who is Other or both is not lesser and is not any less real than person who fits the gender binary. The differences between human and Gethenian gender is also mirrored in social constructs, as the female Envoy says in her early report, 'there is no division of [Gethenian] humanity into strong and weak halves, protective/protected, dominant/submissive, owner/chattel, active/passive. In fact the whole tendency to dualism that pervades human thinking may be found to be lessened, or changed, on [Gethen].' (Le Guin, 2010, p. 100). If this is true for the Gethenians then researchers can ponder the basis of contemporary societal divisions.

Genly himself finally makes this realisation soon after Estraven enters the female role of *kemmer* as he journals that he 'saw then again, and for good, what I had always been afraid to see, and had pretended not to see in him: that he was a woman as well as a man. Any need to explain the sources of that fear vanished with the fear; what I was left with was, at last, acceptance of him as he was' (Le Guin, 2010, p. 266). By not forcing Estraven to fit into one half of the duality of humans, Estraven is free to possess a variety of traits that may be feminine, masculine, neither or both. Genly's journey to accept the non-binary Gethenians begins with forcing them into the role of Men, into the space of Same and ridiculing any traits that did not fit that precisely prescribed Normative. Through life-threatening hardship he comes to observe Estraven as Other to himself (the Real Man) and relegates Estraven to the role of a lesser man, no flesh of his own and not his friend. As Estraven continues to survive just as well as (arguably, better than) Genly, Genly is forced to recognise that not being a Real Man or Real Woman does not equate to not being Real. Just as Genly comes to accept that alternative formulations of gender are not inherently unacceptable, Yaszek (2003) argues the need to reconsider Russ' dismissal of feminine women, arguing that 'although this simple dichotomy between past and present, housewife and real woman (and, implicitly, good and bad modes of SF representation) may well have been crucial to early efforts to define a space for feminist SF, I want to suggest that, 30 years later, we need to revisit Russ's argument' (p. 97). The creative response Nothing like the Sun attempts to address the exclusion of 'unacceptable' Other gender performances as well as the exclusion of 'bad' femininity and women through satisfactory representations of various gender performances which intersect femininity and masculinity at varying levels with male, female and ambiguously sexed characters.

3.3 Satisfactory Representation of Gender Variance

One of the greatest parts of Le Guin's exploration of gender-fluid science fiction in *The Left Hand of Darkness* is Estraven himself. Estraven is a shrewd politician, a lover who swears himself wholly and monogamously to another Gethenian in his youth and adheres strictly to this *kemmer*-vowing (monogamy is an uncommon trait on Gethen). Estraven undertakes a journey that risks, at minimum, death to rescue Genly and precisely calculates supplies required to last their dangerous journey. He is wise, thoughtful, brave and strong, and sacrifices his morals to steal supplies at the beginning of their journey (theft is almost as reviled as suicide). Estraven is an absolutely wonderful character and wholly admirable and the fact that he is outside the gender binary is just a facet of his identity, not his whole identity. Estraven stands as a grand example of how non-binary characters and people can be just as valid as binary characters and people and for this reason alone, *The Left Hand of Darkness* is a wonderful starting point to the field of gender-fluid science fiction, even if it does set the starting point of what limits exist in acceptable gender variation.

Perhaps some journeys of acceptance will be easier and perhaps some will be harder, however, what Le Guin has done has used the genre of science fiction to demonstrate that acceptance *is* possible, than non-binary genders *are* valid and to provide representation *for* non-binary genders, through the Gethenians. Le Guin has explored attitudes toward non-binary genders and demonstrated how those genders are not all that different to the commonly accepted binary.

4. Exclusions within The Left Hand of Darkness

The Left Hand of Darkness and the societal androgyny depicted within contributes much to the fields of gender-fluid science fiction, but it is not without fault. To return to Lothian (2004), it's argued that 'the novel imagines a world without gender, an act which remains important and influential for feminism, though reified masculine and feminine principles pervade the text.' (p. 384) Le Guin's androgynes are almost totally 'men', from the way they are described, to the way there are perceived by

Genly, to their almost strict derision of 'female' traits. What must be questioned, however, is if these traits truly are 'female' or if they are 'neutral' and it is just the derision of 'feminine' traits that leads to an overbearing impression of 'maleness' in the Gethenians. In any case, any slip into typical 'female' traits (positive or negative) like a higher body-fat percentage is immediately sneered at by Genly and the result is an Othering of femininity. This alienisation is not without positives, however, as it permits the androgynous and ambisexual Gethenians into the world of Same, albeit by forcing them into the ill-fitting category of Men. I use 'alienisation' in this instance to mean 'making alien/Other', rather than 'alienation' meaning 'to alienate/ostracise'; in this instance Le Guin is splitting the alien Gethenians into a binary of Same (men) and alien/Other (women/femininity). This has also permitted non-binary genders into the space of Same and acceptable by demonstrating just how those non-binary genders can encompass traits and behaviours from the binary without being a mimicry or metaphor but instead being a *complete and valid* identity in their own right.

Le Guin appears to have had a focus on reversal and Othering within an alien society – by positing a non-binary society as the Normative, both sides of the gender binary thus become alienised, particularly women as Genly is incapable of seeing the Gethenians as anything other than men. By alienising one-half of the gender binary in a society of ambisexuals, Le Guin has presented a non-binary gender as the Normative and forced the reader to reassess their preconceived attitudes toward both binary and non-binary genders. By so succinctly and easily Othering women, Le Guin has used the value of science fiction as a vehicle for thought experiments and also encouraged a consideration of what it is to be male, female or non-binary, demonstrating that 'science fiction is a useful tool for investigating habits of thought, including conceptions of gender' (Attebery, 2002, p. 1). By Othering femininity (and, by extension, women) in a science fiction context, Le Guin has subtly investigated the concept of behaviours belonging exclusively to certain genders. One conclusion researchers can draw from the Othering of femininity is that behaviour is not a basis for gender and nor is behaviour gendered. *The Left Hand of Darkness* is a rich but flawed starting point to study the trajectory of gender fluid science fiction, given its exclusion of femininity and women, which is partially redeemed by the journey of acceptance.

The arguments detailing the flaws and successes of *The Left Hand of Darkness* are convoluted. However, to put aside any perceived flaws of her Gethenians, Le Guin's androgynes are helping to break down the alleged notions of what behaviours constitute a masculine or feminine identity and instead positing that behaviours from each side of the gender binary can be expressed by any gender identity, without invalidating that person's gender – be it female, male or other. As Le Guin herself says in the introduction to *The Left Hand of Darkness*, she is not arguing that society ought to be androgynous or that it ever will be; she is 'merely observing, in the peculiar, devious and thought-experimental manner proper to science fiction, that if you look at us at certain odd times of day in certain weathers, we already are' (Le Guin, 2010, p. xviii).

It is this suggestion that perhaps it is not behaviours that are gendered, but our perceptions of them that makes *The Left Hand of Darkness* an important beginning of the field of gender-fluid science fiction. It teaches us that actions are not gendered; that gender is more than a binary and that representations of non-binary people can be positive and affirming. Though she neglects female and feminine gender performances and the intersection of sex with gender variance in *The Left Hand of Darkness*, Le Guin's 1969 text has modelled a tale of acceptance for the reader and

established the early limits of what constitutes an acceptable gender variant performance. The second chapter of the exegesis studies Ann Leckie's 2013 novel *Ancillary Justice*, which goes some ways to breaking that limit and addressing the lack of women and femininity, demonstrating the changing attitudes of writers of gender fluid science fiction.

Chapter Two: Third-Person Gender Ambiguity in Ann Leckie's Ancillary Justice (2013)

The second chapter of the exegesis is a semiotic analysis of Ann Leckie' Ancillary Justice which explores gender variance through the techniques of gender reversal, gender ambiguity and gender erasure, primarily through the use of female pronouns as neutral. If Le Guin's 1969 exploration of gender fluidity in science fiction revealed a lack of femininity, women and the intersection of sex with gender variance, then Leckie has at least remedied the lack of women and femininity. However, the study of Ancillary Justice has revealed a continuing sexual segregation between binary and non-binary characters. As observed by MacFarlane (2014), 'Ancillary Justice has some significant improvements on The Left Hand of Darkness—such as the fact that multiple systems of gender exist and that the book is not about how discomfiting non-gendered people are—but its use of "she" feels incredibly distant from conversations about gender today' (n. p.). Hubble (2015), however, does recognise the value in these texts, noting that The Left Hand of Darkness and Ancillary Justice are both 'examples of literary experiment designed to destabilise and radically question normative representation' (p. 84-85).

Ancillary Justice Synopsis

Ann Leckie's multi-award winning 2013 science fiction novel *Ancillary Justice* is a dual-strand narrative focussing on one character at two different points in time. In the flashback set twenty years in the past, the troop carrier warship *Justice of Toren* is an AI (artificial intelligence) over two thousand years old. The *Justice of Toren* uses ancillaries or 'corpse soldiers' – adult bodies of annexed civilisations occupied by the AI's intelligence – to be in many places at once. The *Justice of Toren* has five decks

in use and twenty ancillaries for each deck serving the human soldiers, plus thousands of ancillaries frozen in storage for future use. In the narrative's present setting, all that remains of the *Justice of Toren* is a single ancillary, One Esk Nineteen, referred to as Breq as she searches for revenge for her/the *Justice of Toren*'s destruction.

Challenging Maleness as Universal/Neutral

What makes *Ancillary Justice* a compelling study is Leckie's treatment of gender in the text as the Radchaai society, which includes the Ancillaries, Swords, and Mercys (starships of various sizes) use only neutral gender pronouns. However, what sets Leckie apart from similar science fiction texts that employ gender-neutral pronouns is the use of *female* pronouns as the neutral. As Breq recounts, 'Radchaai don't care much about gender, and the language they speak – my own first language – doesn't mark gender in any way' (Leckie, 2013, p. 3). As an AI, Breq finds herself almost incapable of using the correct pronouns to reference other characters when speaking in languages other than Radch. Correlations are repeatedly drawn between 'civilised/civilisation' and 'Radch' and the alternative 'uncivilised' and 'foreign.' Breq herself is confirmed to possess a female body as a non-Radch character that follows the gender binary refers to her as 'a tough little girl' (Leckie, 2013, p. 2), yet it must be argued that her consciousness is something Other. Breq, as a human female shell housing the last fragment of a vast AI consciousness incapable of discerning gender, could be argued to occupy all three of the spaces observed in the work of female writers of science fiction. These writers are observed to offer 'instead of the traditional male gender of narration, gender reversed, gender ambiguous or gender erased' (Donawerth, 1996, p. 176). Leckie has carried this into the 21st Century and mirrors these themes of gender reversed, gender ambiguous and gender erased

throughout *Ancillary Justice* in a manner that challenges the notions of gender as the basis for identity and seeks to expand the limits of acceptable gender variance set by Le Guin. Where Le Guin offers overarching maleness, Leckie has instead offered femaleness through the use of female pronouns as neutral. However, Lothian (2006) argues that privileging the female is not necessarily an improvement over privileging the masculine:

'In the antiessentialist feminism toward which Le Guin gestures here, masculinity and femininity and associated binary terms are dangerous "myths," oppositional cultural constructs: they have no meaning in themselves but only in relation to, and negation of, the opposing term. Binary gender, in this model, is critiqued as the basis of oppressive modes of thought which enforce the categorization of all life into hierarchical oppositions. If the myths of gender are exploded further, masculinity and femininity are perceived as radical social constructs: contingent elements, learned and performed (as articulated in Judith Butler's work) within a culture structured around them where male and female, masculine and feminine are understood as 'natural' only because we cannot think outside these binary oppositions. In this context, to see masculine and feminine yin and yang principles as interdependent offers no particular critique to the gendered binary. Even privileging the feminine may only mean one is inverting the opposition without meaningfully criticizing its structure.' (Lothian, 2006, p. 383)

In this instance Lothian is arguing for a feminism of equality that is not restricted by the binary opposition of the gender construct. To put this into practice a text would need to transcend the interdependency offered by the gender binary without privileging any gender expression over another. This chapter of the exegesis is focussed on Leckie's 2013 iteration of new formulations of gender and the female-centric *Ancillary Justice* and will explore what avenues for discussion Leckie opens with her portrayal of gender fluid science fiction.

Leckie and Gender – Reversed, Ambiguous and Erased

Leckie achieves these three manipulations of the gender binary in many ways and each of these themes is revealed through certain characters. Seivarden is a character confirmed to be male, but, as part of the Radch society and viewed only through Breq's eyes, he exclusively uses and is referred to with female pronouns. In this instance, his gender is reversed. Together, the doctor Strigan and the Lord of the Radch Anaander Mianaai exemplify gender ambiguity. Anaander Mianaai is described as possessing 'thousands of bodies, all of them genetically identical, all of them linked to each other' (Leckie, 2013, p. 95). As part of the Radch society, she uses and is referred to with female pronouns, but unlike the AI systems with their ancillaries, her bodies are all identical bar age – these bodies are perhaps clones of a single original body, but what is left ambiguous is if this body is male or female, though hints are given to align the reader toward male. As part of a different alien race, the doctor Strigan explores another version of gender ambiguity due to her society, which 'professed at the same time to believe gender was insignificant. Males and females dressed, spoke, acted indistinguishably. And yet no one I'd met had ever hesitated or guessed [gender/pronouns] wrong. And they had invariably been offended when I did hesitate or guess wrong' (Leckie, 2013, p. 77). Lastly, as the narrator, Breq herself stands as the mouthpiece for the Radchaai society as a whole, which represents the exploration of gender erased. As an AI, she is arguably without gender in a female body. Her gender is rarely mentioned and thus her actions cannot be attributed exclusively to either side of the gender binary. As part of the Radchaai society which views all gender as neutral, Breq's observations of all characters as neutral through the use of female pronouns subverts the expectations of male as the default and challenges notions of masculinity and femininity as the basis for gender. This practice of a gender-erased neutral society and the female as the neutral, along with the explorations of gender reversed and gender ambiguous science fiction further challenges the notions of gender as the basis for identity. No character in Ancillary Justice can be described as exclusively male or female, presenting instead characters,

societies and alien races that are something in-between, or simply, gender fluid. Leckie's *Ancillary Justice* evolves the discourse begun by Ursula Le Guin and begins to address the lack of women in gender fluid science fiction. *Ancillary Justice* relies on the ideology of authenticating femininity, however I believe a textual analysis reveals Leckie's use of the female pronouns *as gender-neutral* does not reduce the Radchaai depiction of gender to 'women' but to 'human' given that the Radchaai language (which uses the female pronoun as neutral) equates 'Radch' (female) with 'civilized' (human). To be Radch is to be human. The Radch may use the female pronoun as neutral, which serves to bring representation to both women and gender fluidity to science fiction but it does not idealise or authenticate any one depiction of femaleness.

Note on the Imperial Radch trilogy and selection of text

Ancillary Justice (2013) is the first novel in Ann Leckie's Imperial Radch trilogy and was followed by *Ancillary Sword* (2014) and *Ancillary Mercy* (2015). Note must be made of two things: first, due recognition of Leckie's further sociopolitical explorations and secondly, my rationale behind selecting only Leckie's first text.

To begin, while *Ancillary Sword* maintained Leckie's use of female pronouns as neutral, the sociopolitical focus of the text shifted to that of slavery. Similarly, *Ancillary Mercy* shifted to explorations of humanity, artificial intelligence and sexuality. All three texts are a study of what it means to be a 'person' but it is only the first text where the core study is one of gender.

In terms of my selection, *Ancillary Sword* and *Ancillary Mercy* followed in the famous steps of *Ancillary Justice* in terms of copious science fiction award nominations and/or wins, making them noteworthy for analysis in their own right, however, the size and scope of this study limited the number of texts that could be

thoroughly critiqued. I selected *Ancillary Justice* as one of three texts to study in this thesis due to its notoriety, its unusual technique of female pronouns as neutral and due to the reasoning that the text is not overtly 'about' gender. It is my intention in this thesis to make gender differences a nonissue, unremarkable, and the subtlety of *Ancillary Justice* fit within these parameters.

1. Gender Reversal

1.1 Performative Signifiers of Gender

Leckie creates a reversal of gender in several ways, the most notable of which is a reversal from the default male pronouns as neutral to female pronouns as neutral. At first, this subversion has a jarring affect upon the reader - where the actions of innkeepers, soldiers, doctors and brigands lead to an assumption of maleness, the female pronouns instead create an undeniable discord forced by ambiguous gender performances. Leckie's play upon gender markers and very sparing physical descriptions encourage the reader to reassess assumptions of gender roles. Take, for example, a nameless background character of an alien race known as Nilt who is 'taller than most Nilters, but fat and pale as any of them. She outbulked me but I was taller, and I was also considerable stronger than I looked. She didn't realise what she was playing with. She was probably male, to judge from the angular, mazelike patterns quilting her shirt' (Leckie, 2013, p. 3). Breq ignores physical gender markers that would typically signify maleness and instead focuses on the pattern of the character's shirt as a possible indicator of gender performance. In this manner, Leckie not only reverses the gender of the character by using female pronouns and assuming male but also the expectations of what gender means by describing a masculine body and drawing conclusions instead from the innkeeper's clothing which is instead part of a gendered performance. Naturally, this summons Butler's theory in which gender is performed through mannerisms and clothing. To draw parallels between the language spoken by gender and sexuality, it's observed that 'at some point in their lives, probably as many as one third of gay people transcend gender norms in ways that lead others to perceive them *as* gay. In part, this is because gender is a language of symbols' (Wilchins, 2004, p. 15). This is put into effect by Breq's observations of characters around her as she draws conclusions of gender from a compilation of signifiers including physical appearance, clothing, behaviour, occupation and more.

1.3 The Sex/Gender Distinction

Leckie cements the sex/gender division and takes the issue of gender beyond the matter of genitalia when Breq guesses Strigan's gender incorrectly and excuses herself by commenting that she 'can't see under [Strigan's] clothes. And even if I could, that's not always a reliable indicator' (Leckie, 2013, p. 104). Strigan's gender is completely ambiguous; even genitalia do not provide a clear distinction of gender. Here, Leckie is clearly commenting that physical sex does not define gender. There are individuals who do not fit the gender binary, such as intersex (mixed/ambiguous genitalia) or trans people and this simple statement is an important nod toward the reality of people who lie outside the gender binary. Importantly, Leckie is acknowledging that these people exist and are accepted, which is a departure from the master narrative of men and women.

The use of gender reversal can be best seen in the character of Seivarden. Seivarden is one of the few, if only, characters to be confirmed male and was a Lieutenant of the Justice of Toren a thousand years ago before unknown circumstances lead to him being frozen. Breq finds him in the present narrative naked in the snow and addicted to kef (a drug) a few years after his unfreezing. Her discovery of Seivarden is the opening of the text when she stumbles upon 'the body [which] lay naked and facedown, a deathly gray, spatters of blood staining the snow around it. [...] There was something itchingly familiar about that out-thrown arm, the line from shoulder down to hip' (Leckie, 2013, p. 1). Breq recalls Seivarden as a character whose 'manners were those of an educated, well-bred person of good family' (Leckie, 2013, p. 2). These vague, slightly feminine signifiers paired with the female pronouns lead to the assumption that Seivarden is female. In this opening scene of the text, the Radchaai's use of female pronouns as neutral is not known by the reader and though the innkeeper refers obliquely to a 'he', Seivarden is not confirmed as male for another seventy pages when Breq is talking about him with the doctor Strigan, whose own gender is left ambiguous throughout the text. In Strigan's own language, they discuss Seivarden and his state of health, his motives, etc. Breq explains that as she is speaking Strigan's language she 'had to take gender into account – Strigan's language required it' (Leckie, 2013, p. 77). Seivarden's character, then, undergoes a period of gender reversal. Where the reader had initially been reading his character as her, each instance of 'she' must now be understood to mean 'he' and all previous assumptions about 'her' behaviour, her character, her appearance must now be reinterpreted as his behaviour, his character and his appearance. Seivarden changes almost instantly from female to male and forces a reassessment of the assumptions of masculine and feminine signifiers. The change is unsettling for the reader and this unsettlement is repeated throughout the text with every other character as no one else has a confirmed gender. It's noted that 'so natural does binary categorisation of gender seem that is can be disconcerting not to know immediately if the person you are looking at is male or female' (Foss, Domenico & Foss, 2012, p.

56). In the instance of *Ancillary Justice*, this disconcertment is what will be referred to as a gender ambiguous society and will be explored in this chapter.

Leckie presents a complex blend of gender signifiers including physical appearance, temperament, occupation and speech-patterns and presents these not as male or female but indistinguishable. For at least Seivarden and the Nilter, the gender is strongly implied. Seivarden is confirmed male by other characters who maintain a gender binary in language and the Nilter's physical description leads to an assumption of masculinity that, although unconfirmed, is leant weight by an understanding that 'angular, mazelike patterns' denote a male gender. However, for all other characters, Breq is forced to carefully avoid referring to someone's gender or guess. Even when Breq incorrectly guesses a character's gender, it is not revealed which gender she tested. This challenges the reader's perceptions – if Breq guessed that the doctor Strigan was one gender and was incorrect, surely this confirms Strigan as the other? However, by using the excuse of alien languages, Leckie subtly avoids naming *which* genders Breq chooses, effectively keeping the reader in the dark.

1.4 Issues in Leckie's Gender Reversal

Leckie presents an interesting new take on the fluidity of gender by reversing the concept of female gender as neutral, rather than the usual default-to-male view of neutrality. However, some issues must be raised. Though Leckie subtly hides the gender of most characters by presenting the possibility that a Captain, Lieutenant, doctor or head priest could be male or female, some issues with the language surrounding gender arise. Lieutenant Awn, a character from the flashback portions of the novel, is similarly gender ambiguous, however she answers a superior by calling them 'sir'. There is only a single instance of this throughout the novel, so it may be

argued as an error or an undeveloped attempt at equating the title of 'sir' with any person in a seniority position regardless of gender. Similarly, Anaander Mianaai who is the multi-bodied Lord of the Radch is similarly styled with a masculine title – that of 'Lord'. It could be argued that 'Lady' does not carry the same military weight as 'Lord' or that 'Lord' is intended to be read in the same neutral fashion as 'she' or even that 'Lord' is the closest approximation to the title in the language in which Breq is narrating. However, this single masculine title in a world in which the female is the neutral stands out and belies the reversal of gender that had been so adroitly executed throughout the rest of the text. Further, Strigan, a non-Radchaai character who uses gendered pronouns and is capable of discerning gender, refers to the Lord of the Radch Anaander Mianaai as 'he' (Leckie, 2013, p. 81).

Pairing these gender markers with the Radchaai's use of female pronouns as neutral presents each character's gender in a constant state of flux, frequently reversing from male to female, female to male. Through this state of flux, Leckie has subtly deconstructed the idea of gender as a strictly separated binary of masculinity and femininity and challenged reader perceptions of gender performances. Through the character of Seivarden, Leckie has reversed the concept of gender twice. Readers think him female until confirmed male and then must constantly reassess his maleness when faced with female pronouns. This gender reversal in *Ancillary Justice* serves to highlight preconceptions about ambiguously gendered characters and further serves to reverse the default-to-male mindset that is common when a gender is unknown. This gender ambiguity is developed through the Radchaai's alien language and customs, which use a single neutral gender pronoun to denote all people.

2. Gender Ambiguity

Leckie uses the Radchaai language of the female pronoun as neutral to achieve a reversal of gender, however, it is the genre of science fiction itself that she uses to explore gender ambiguity. Science fiction can 'encourage writers to ask questions about the biological basis of sexual division and allow them to explore alternative formulations of society and the individual psyche' (Attebery, 2002, p. 4). Through science fiction Leckie seems to question the importance of gender to society. She achieves this by presenting a gender ambiguous alien society seen through the eyes of an artificial intelligence animating a corpse soldier body. It is through the alien doctor Strigan that Leckie questions the biological basis of the gender binary when Breq incorrectly guesses Strigan's gender. Breq apologises, explaining she 'can't see under [Strigan's] clothes. And even if I could, that's not always a reliable indicator' (Leckie, 2013, p. 104). This is easily identifiable as a reference to the sex/gender distinction and the belief that a person's physical sex does not always correlate to their gender identity. Leckie is not articulating any particular non-binary sex; she is merely making it clear that gender and sex are two entirely different concepts. Leckie has made great strides since Le Guin to bring women, femininity and the possibility of gender variance into the discourse of gender fluid science fiction.

2.1 Misgendering Signifiers

To begin, Strigan's own alien background is a similar example of gender-ambiguous societies explored through science fiction. Strigan is clearly of another race to the Nilters (fat and pale) or the Radch (brown-skinned), described as she is as 'just under two metres tall, thin under the bulk of her double coat, skin iron-gray. When she pushed back her hood her hair was the same. She was certainly not a Nilter' (Leckie,

2013, p. 75). Having established Strigan as another alien race, Leckie makes comparisons between the Radchaai society/language, which use only a single gender-neutral pronoun for both genders, and Strigan's society/language, which uses two genders for almost indistinguishable differences. As Breq comments;

Since we weren't speaking Radchaai, I had to take gender into account – Strigan's language required it. The society she lived in professed at the same time to believe gender was insignificant. Males and females dressed, spoke, acted indistinguishably. And yet no one I'd met had ever hesitated or guessed wrong. And they had invariably been offended when I *did* hesitate or guess wrong. (Leckie, 2013, p. 77)

The pairing of female pronouns as neutral and the offense taken by other characters when misgendered is explored in regards to the observations of entrenched messages in language. In relation to using 'gay' as a slur, it is noted that;

All things feminine are gay; gay is stupid; feminine is stupid; females are stupid; males who act like females are stupid. The syllogism of the patriarchy bears down on gender and sexuality, specifically and oppressively in relation to feminine gender and male biology: the two should never meet and if they do, no good can come. (Siebler, 2016, p. 97)

Leckie's choice of the female pronouns as the neutral seems to actively fight Siebler's observations of the persistent connotations of 'gay' as a slur to mean feminine and stupid. Though 'female' does not necessarily mean 'feminine,' Leckie's intersection of 'female' with Seivarden's confirmed male biology challenges both the negative connotations of intersecting gender and demonstrates the possible positives. Furthermore, the doctor Strigan and her society could be argued to stand as an allegory of the current social situation regarding the gender binary where gender signifiers are slowly becoming more fluid between the two binaries but the male/female separation remains distinct. Whilst presented as an alien society, these references to males and females dressing, speaking and acting indistinguishably is also remarkably similar to the bodies of our own society, which are almost indistinguishable from one another physically, bar genitalia. To make our genders distinct, we must conform to abiding gender performances in our choices of hair length, nail length, clothing, posture and language. Breq must be careful in navigating gender-binary societies when she herself is incapable of separating the two genders. It's observed that 'transcending gender norms is still an issue of personal shame. Not mastering your gender is like not mastering toilet training. If people cannot tell if you're a boy or girl, they feel uncomfortable and/or angry, and you feel humiliated and embarrassed' (Wilchins, 2004, p. 20). Breq fears Strigan will become angry or upset if she misgenders her and this fear is repeated throughout her interactions with other gender ambiguous characters.

2.2 Alternative Societal Gender Structures

This is due, primarily, to Breq's native tongue, Radch, and the society it comes from which recognises only a single neutral gender. Leckie explores this alien society and constantly correlates it with being 'civilised' (Leckie, 2013, p. 62). As has been briefly explored, this civilised alien society recognises only a single neutral gender and as such both males and females are referred to as 'she' and 'her'. There are male and female bodies, as evidenced by the confirmation that Breq possesses a female body and Seivarden is male, however, beyond these two characters, all gender is ambiguous. In this society, all gender expressions are accepted as simply one, regardless of biological sex. Conversely, in Strigan's society, there are two genders but (at least for Breq) those genders are near impossible to discern from speech, clothing or behaviour – in other words, their gender performances. In these two gender ambiguous societies, Leckie has presented two possibilities of gender fluidity. One is fluid/ambiguous in name (pronouns) and body, with inhabitants possessing any mixture of gender markers still resulting in an acceptable gender identity, and the

other is fluid/ambiguous in body (speech, clothing, behaviour) but binary in name (he/she pronouns.) Leckie uses these two alien societies to explore two different ideas of gender identity and gender ambiguity in societies. Though the Radchaai society may be confusing with only a single neutral gender, more fluidity and freedom is afforded to the Radchaai identities. Strigan's society is similarly fluid in body but maintains a strict binary in pronouns that causes upset if used incorrectly, analogous to our human gender performances that rely on seemingly ambivalent signifiers like hair length.

The gender ambiguous Radchaai society is primarily seen in the flashback portions of the text, which recount the events leading up to the *Justice of Toren*'s destruction. The reader is introduced to the *Justice of Toren*/One Esk/various ancillaries and the Lieutenants Awn, Skaaiat, Issaaiah, Dariet, Commander Tiaund, Hundred Captain Rubrand and the Lord of the Radch herself Anaander Mianaai, however attention is primarily focussed on One Esk, Awn, Skaaiat and Anaander Mianaai. Any conclusions drawn about the gender of these characters is entirely based upon the reader's preconceptions of abiding gender performances. Awn is portrayed as compassionate and proper with a strong set of morals from a lower-class house; Skaaiat is hinted to have questionable political allegiances and is described as 'handsome and charming, and no doubt good in bed' (Leckie, 2013, p. 241). The gender of these characters is unspecified and Leckie has used this to force the reader to reassess any assumptions made on the basis of these arguably ambiguous gender performances. Their gender ambiguity is a subversive tactic that forces a reconsideration of the gender performance as a strict binary.

Anaander Mianaai's introduction to the text takes place as she enters the Orsian town where Lieutenant Awn is deployed. She is described as 'on foot, a single one of her walking down through the upper city [...] She was old, gray-haired, broadshoulders slightly stooping, the almost-black skin of her face lined. [...] She wore not the jewelled coat and trousers of the Radchaai, nor the coverall or trousers and shirt a Shis'urnan Tanmind would wear but instead the Orsian lungi, shirtless' (Leckie, 2013, p. 98). Broad shoulders and a shirtless wardrobe could denote a male or at least masculine gender performance, however, as the Radchaai is an alien society unlike our own, Leckie has problematised the issue of gender markers – what may be masculine or male for the reader might be any gender for the Radch. However, the issues with the character of the Lord of the Radch have already been noted. In particular, these are the male styling of title of 'Lord' in a society in which all other titles are female and a non-Radch character capable of correctly discerning gender referring to the Lord of the Radch Anaander Mianaai as 'he'.

2.3 Belying the Binary: The Undeniable Discord of Gender Ambiguity

The effect of gender ambiguity upon the reader is described as 'the increasing anxiety a reader feels to know [a character's] gender [which] drives home how important to our current culture gender is' (Donawerth, 1996, p. 164) and it is this anxiety that Leckie uses to show the ambiguity of gender markers. This undeniable discord seems intended to prove the falsehood of a binary gender, especially when faced with a single neutral gender that challenges the concepts of gender as a key component of identity. Leckie's use of two different alien societies that each view gender in a contrasting manner and gender ambiguity paired with seemingly obvious gender markers instead demonstrates the fluidity of gender. What makes Leckie's use of gender ambiguity interesting is that only two characters have a confirmed gender. One of these is Breq, a genderless AI occupying a female body, and the other is Seivarden a male character who exclusively uses and is referred to with female pronouns. However, these female pronouns do not denote femaleness or femininity but a neutral gender as Leckie has subverted the conventions of the default gender from male to female and then used an alien language to change the meaning of 'she' to something akin to 's/he'.

3. Gender Erasure

3.1 Erasure Through an Al's Perception

As the narrator and protagonist, Breq herself is perhaps the best example of gender erasure in Ancillary Justice and this is not only because her consciousness is an arguably genderless AI. The flashback portions of the text take place primarily from the viewpoint of the Justice of Toren One Esk One, an ancillary segment which is never given a discernible gender. A pivotal plot point moments prior to the Justice of Toren's almost total destruction takes place through the eyes of One Var, another of the Justice of Toren's segments. Moment later, the communications network is disconnected and the AI's consciousness fragments. Each of the segments is suddenly independent of each other and of the Justice of Toren. Before its fragmentation and destruction, the Justice of Toren was over two thousand years old and in possession of thousands of ancillary segments taken from annexed civilisations, both male and female. However, these segments are stripped of the body's former identity and given new names referring simply to its platoon, deck and segment number - simply put, One Esk Nineteen (Breq) is the nineteenth body of the Esk deck's first platoon. However, Breq suspects that at some point her consciousness had subtly split into two identities: that of the Justice of Toren as a whole and that of One Esk, which has a fondness for songs and singing. As Breq recollects, 'I-that is, I-One Esk-first sang to amuse one of my lieutenants, when Justice of Toren had hardly been commissioned

a hundred years. [...] It was a matter of rumour and some indulgent smiles that *Justice of Toren* had an interest in singing. Which it didn't—I—I–*Justice of Toren*—tolerated the habit because it was harmless, and because it was quite possible that one of my captains would appreciate it' (Leckie, 2013, p. 23). Though One Esk is slightly different to the *Justice of Toren*, it is still an AI and though the AI's consciousness is capable of and uses emotion (Leckie, 2013, p. 88), it is still genderless. Leckie uses this erasure of gender to fully explore the fluidity of gender in other characters, especially when paired with the gender-neutral Radch society.

Despite the early confirmation of Breq's female body, her gender is never mentioned again and is thus effectively erased. In several instances she is even referred to as 'it', which does problematise the matter somewhat. Unlike Lieutenant Awn and Skaaiat, Breq's gender is not ambiguous to prove the point of irrelevance but is instead confirmed, which reinforces the point of irrelevance. Awn and Skaaiat serve the purpose of demonstrating how their behaviours cannot be pinned with any certainty on either gender. However, Breq serves to demonstrate that any behaviour *could* conceivably match an idea of gender. Whilst Awn and Skaaiat's genders are erased leaving their gender markers frustratingly ambiguous, Breq demonstrates that even when gender is known, it is unnecessary or irrelevant.

Significantly, Awn and Skaaiat are gender ambiguous because they are viewed through the eyes of the genderless AI and it is through her eyes that they too become gender erased, as the AI is especially incapable of discerning gender. Simply put, through Breq's inability to distinguish gender and the Radch use of a single genderneutral pronoun all characters become gender erased. As an artificial intelligence, the female gender of Breq's body is erased and so too does the Radch society erase gender. Though the pronoun may be female in our language, it is neutral in Radch and Leckie uses this simple switch from default-to-male to female to subvert reader expectations. Consider the argument that 'because it sets the terms of discussion, the first term of the binary acts as a centre that is insulated from being questioned. Thus we endlessly debate the meaning of Woman but not Man, homosexuality but not heterosexuality, blackness but never whiteness, transgender but never *normal* genders' (Wilchins, 2004, p. 41). It is this point that Leckie seems to be rebelling against when she sets 'Woman' as the default, insulated from discussion and instead presents 'Man' as the 'Other' and debateable.

3.2 Erasure to Combat Maleness as the Unmarked Sign

It is important to question *why* Leckie used the female pronouns to present a gendererased society. One reason, surely, is to subvert the default assumption that all characters are male until proven otherwise. As explored in the Introduction, a 2010 experiment in which participants read the same text twice with only the name and gender of the protagonist altered found that participants preferred the texts with a male protagonist (Bortolussi, Dixon & Sopcák, 2010, pp. 299-318). This observed preference for male protagonist could contribute to the assumption of male gender when characters are gender ambiguous – if readers prefer a male protagonist, then subtly gender ambiguous characters may automatically be read as male; to avoid all characters in *Ancillary Justice* being read as male, Leckie had to avoid the male pronoun. However, perhaps another reason becomes clear when taking into consideration that 'there is not a single word for people who do not fit gender norms that is positive, affirming and complimentary. There is not even a word that is neutral' (Wilchins, 2004, p. 38). This means if Leckie wished to present gender-neutrality, she had to step outside the realms of male pronouns or create new pronouns that would disrupt the reader experience. Therefore, Leckie has presented gender-neutrality in terms that are, at the very least, neutral in terms negative/positive associations and done so in language which already exists and presents very little disruption to reading and comprehending the text.

Leckie further erases gender by erasing sex as well; no mention is made in *Ancillary Justice* of babies, breasts, genitalia, menstruation, pregnancy, childbirth, sex or sexuality. Only a passing comment is provided to explain how Radchaai children come into existence when Breq explains to a curious Strigan that prospective parents 'have their contraceptive implants deactivated. Or they use a tank. Or they have surgery so they can carry a pregnancy. Or they hire someone to carry it' (Leckie, 2013, p. 104). In this simple list of options, Leckie has posed the possibility that any match of genders and sexes could produce a child with little fuss and also proven that differently sexed bodies do exist in this gender-neutral society. Leckie, like Le Guin, references the sexuality of her reimagined societies only distantly. Though Breq can be argued to be a sexless AI and focussed on revenge, there is a distinct lack of sexuality in both *Ancillary Justice* and *The Left Hand of Darkness* which keeps Other genders at arm's length.

Leckie uses the tropes which science fiction makes available to erase gender. By using a truly genderless AI incapable of discerning gender, she has effectively erased gender from *Ancillary Justice*, rendering it an unreliable basis of identity. By using a gender-neutral language she has wiped all other characters of gender too and proven that gender cannot be concretely discerned through the signifiers of performance. She has also subverted the default-to-male view of gender-ambiguity by assigning the default gender as female in our language and neutral in Radchaai.

No character in Ancillary Justice can be described as exclusively male or female but what Leckie makes incredibly apparent is how very little it matters. Her world building, societies and characters are all rich and vivid with complex motivations, emotions and choices. The erasure of gender in Ancillary Justice is initially difficult to come to terms with as, rather than reading a society without gender it is easy to instead mistake it for a society of women. Seivarden, the only confirmed male character in the text, makes it abundantly clear however that this is not a female-only society in which the male gender has been erased, but a genderneutral society in which all gender has been erased. Once gender has been erased from the text it becomes very apparent how little it mattered to the story but it also bring some errors or oversights to the attention of the reader. Similar to the issues of gender ambiguity in the Radch society in relation to the Lord of the Radch using the masculine title 'Lord' and being hinted as a male, so too is Breq referred to as 'it' in the flashback portions of the text. This both does and does not serve the purpose of gender erasure in Ancillary Justice. On one hand, the ancillary segments are not even seen as human but merely tools and it could be conceded that the term 'it' is appropriate for something that is less than human. Conversely, 'it' is a term that denotes genderlessness, which is arguably another form of gender-neutrality. There is a time between One Esk Nineteen's survival of the destruction of the Justice of Toren and when the present setting of the text takes place in which Breq becomes 'she'. Her gender is still erased but she has gained a recognisably female body and a neutral gender. However, the instances in which the Justice of Toren's ancillary segments are referred to as 'it' are infrequent enough that the gaining of the pronoun 'she' and the ascension to human status could very easily be missed. In this regard, it becomes less a matter of gender and more a matter of humanity, which may detract from the

message of gender as unimportant to identity but does lend power to a less explored theme of humanity.

Regardless of the minor issue of One Esk's gender as a genderless 'it' before separation from the *Justice of Toren* and a gender-neutral 'she' after, Leckie provides a fascinating and complex exploration of the erasure of gender which expands the boundaries of what gender performances means to identity.

Despite being an 'erasure' of gender, Leckie's use of the female pronouns succeeds in evolving the gender fluid science fiction discourse begun by Le Guin by bringing women (at least in name) to the forefront of the discussion and including femaleness and femininity into the acceptable limits of gender variance.

4. Gender Fluidity

4.1 Arbitrary Signifiers as a Basis for Gender Assumption

Donawerth argues that, 'women writers offer, instead of the traditional male gender of narration, gender reversed, gender ambiguous or gender erased' (Donawerth, 1996, p. 176) and it is these three experiments upon gender identity that Leckie used not only on Breq but throughout *Ancillary Justice*. Leckie achieves gender reversal, gender ambiguity and gender erasure in a complex myriad of ways with varying degrees of success but what becomes apparent through each iteration of challenging the gender binary is how very little difference the addition of a concrete gender would make in each instance. Seivarden, as the only confirmed male in *Ancillary Justice*, undergoes a double-reversal of gender. His initial introduction in the text paired with the Radchaai use of female pronouns to denote gender-neutrality lead to an assumption of femininity that is later reversed with the revelation that 'she' instead mean 's/he'. His actions must then be renegotiated with the knowledge of maleness rather than femaleness and all future uses of 'she' in relation to Seivarden must be renegotiated

instead with the knowledge of 'he'. Together, the alien doctor Strigan and the Lord of the Radch Anaander Mianaai and her many genetically-identical clones exemplify gender ambiguity, though issues have been noted that lend Anaander Mianaai a strong likelihood of maleness. Strigan, though, is truly gender ambiguous and brings with her another alien race and another variation of a gender ambiguous society. Breq herself and the Radchaai society stand as the highlight of gender erasure, once the reader has come to terms with Leckie's subversion from male to female as the default neutral gender. As an AI, Breq is genderless in a female body but that femaleness is almost never mentioned leaving her nearly entirely genderless. As a tool of the Radchaai society and as an AI, Breq finds herself close to incapable of determining the gender of those around her and so it is through her eyes that all other characters are stripped of gender, regardless of what we as the reader may view as masculine or feminine gender performances. This gender erasure assists to challenge the notions of gender as a necessary keystone of identity especially when complemented by the experimentation with gender ambiguity and gender reversal resulting in a wide array of gender fluidity or gender in flux.

The gender reversal is best observed in the Radchaai society itself and its displacement of the Male as the default gender insulated from discussion and the Female that instead takes its place. Leckie maintains what could be described as gender signifiers in her characters but avoids confirming their gender identity in terms of the gender binary, choosing instead to present her characters in a state of gender flux. One character that is given a gender is Seivarden who serves as Leckie's example for the absolute arbitrariness of gender signifiers. Seivarden is of very little importance to the trajectory of the story, much like many female characters that serve little purpose beyond aesthetics and acting as a prize for the protagonist; his role, instead, seems to merely be to introduce Leckie's tactic with the pronouns. Beyond this, he is utterly superfluous. Introduced in an ambiguous manner and bestowed with female pronouns, the reader's initial assumption is that Seivarden is female, especially as the concept that 'she' stands for 's/he' has yet to be introduced. When Seivarden is finally confirmed as male nearly seventy pages later, he undergoes a sudden and extreme gender reversal which forces a reconsideration of his behaviour, character and appearance and the understanding and assumptions of masculinity and femininity. The point of this gender reversal is surely to disconcert the reader. Through this disconcertion, Leckie raises questions relating not only to masculinity and femininity but also how these perceived gender signifiers work as part of the language of symbols that comprise gender. These symbols, with Leckie's experimental use of female pronouns to denote gender neutrality, serve to stress the fluidity of gender in Ancillary Justice and how this fluidity can be translated to life. By simply reversing the structure of what is the 'first' term of the binary and what is Other, Leckie has raised questions about just how very unreliable these gender signifiers are when read with and without the context of confirmed gender identity.

4.2 The Result of Unrecognisable Gender Performances

Donawerth describes the effect of gender ambiguity upon the reader as an 'increasing anxiety,' and this holds true for *Ancillary Justice*. The Radchaai use of a single neutral gender impresses upon the reader time and again that it is impossible to conclusively determine a character's gender through so-called gender signifiers alone. From the alien doctor Strigan to Lieutenants Awn and Skaaiat and the Lord of the Radch Anaander Mianaai herself genders can only be suspected, never confirmed in this gender ambiguous society. Leckie's use of this trope seems to serve a purpose of

reiterating again the fluidity and inconclusiveness of gender markers and the insufficiency of the gender binary at encapsulating all possible gender identities. Leckie takes advantage of the discord caused by her gender-neutral society to present new gender expressions. Without confirmation that Awn, Skaaiat and Strigan are tied to any particular gender, readers are free to immerse themselves in the place of the characters. This reader immersion without gender is important as no character in Ancillary Justice can be described as exclusively male or female but what Leckie makes incredibly apparent is how very little it matters. No character suffers for having an ambiguous gender and each is still fully fleshed with complex motivations, emotions and choices. Leckie expands this freedom and fluidity of gender expression into two societies. One society is the Radchaai and one is the alien doctor Strigan's. These two societies can be contrasted primarily in their treatment of gender. The Radchaai have a single neutral gender and fluid gender expressions and Strigan's society has a gender binary with fluid gender expressions, yet upset is caused if anyone in Strigan's society is misgendered. Leckie seems to be using Strigan's society as a subtle allegory for our own, a society with many varied gender expressions but only two genders. Strigan's society exemplifies a perceived 'need' for gender markers to ensure the correct assignation of gender pronouns. This 'need' for gender markers to ensure correct recognition of gender can be read as a society lacking gender performativity – the cumulative performance of a collection of gender signifiers intended to portray a particular side of the gender binary (Butler, 1990). This collection of gender signifiers is comprised of what Wilchins calls the 'language of symbols' of gender. Without gender performativity or the language of symbols comprising gender we end up with Strigan's race, an ambiguous society constrained by the gender binary that is perhaps analogous to our own. The Radchaai society is arguably that of Strigan's with a single difference: the erasure of gender.

Leckie has presented multiple complex conceptions of gender including gender ambiguous characters and societies and a reversal of the default/neutral gender. The Radchaai society stands as an allegory of gender identities possible if the gender binary was abandoned in favour of a neutral gender. This erasure of gender may initially have created a jarring reader experience but it is this disconcertment that lends credence to not only the unbalanced nature but also the shortcomings of the gender binary. By erasing gender, Leckie once again provides a space for readers with non-binary genders to immerse themselves in the text without detracting from the text or distracting with newly imagine pronouns. This innovative text is valuable for readers as 'the negotiation of a text is just one episode in a reader's ongoing (re)negotiation of his/her gender identity' (Cranny-Francis, 1992, p. 261). The stage upon which Leckie sets this episode is one of gender erasure, bringing the gender binary to the same level as all other gender identities, be they current, emerging, purely conceptual or unknown. Leckie uses tropes primarily found in science fiction to provide this stage, tropes of artificial intelligences, immense galactic empires, alien societies and ancillary soldiers comprised of the adult population of annexed civilisations.

The result of Leckie's innovative gender reversal, gender ambiguity and gender erasure is to open discussions of and pave the way for new gender expressions, including but not limited to genderlessness and gender fluidity. Leckie challenges the rigidity of so-called gender markers with characters who cannot possibly be segregated into either side of the gender binary, characters which readers recognise but cannot name beyond their gender fluidity. Leckie provides a stage upon which any reader may renegotiate not only their gender identity but also what gender identities are possible, what it means to be male or female and how the concepts of masculinity and femininity intersect with these meanings. She challenges and reverses the insulation that protects 'Male' from discussion and sets 'Female' as Other and demonstrates just what is left when gender is erased entirely. However, it's necessary to note that 'simply highlighting the malleable, open-ended nature of identity does little to address [the lack of engagement with non-binary genders] and fails to generate the kind of radical political agency necessary to remedy it' (McQueen, 2016, p. 78). Malleability of gender requires analysis alongside specific identities. This is a very minor criticism of Leckie, however, as it can also be argued that 'one need not continually seek to cultivate imperceptible, incoherent and unrecognizable identities in order to be a gender radical' (McQueen, 2016, p. 85).

Breq stands as the mouthpiece not only for the Radchaai's gender-neutral society but also for the reader. By combining a genderless AI with a female body in a gender-neutral society, Breq blurs the boundaries of what constitutes a female character, resulting in a female narrator in which males can immerse themselves. Breq is depicted as asexual and aromantic in behaviour, perhaps because of the unusual composition of her consciousness and gender, perhaps as a demonstration of her dedication to completing her mission for revenge or perhaps, simply, because it is not necessary for a character to have any sort of sexual or romantic inclination. Leckie has taken the mode of gender fluid science fiction begun by Le Guin, which lacked or derided women, femininity and gender variant sexuality and sought to elevate women and femininity to the role of universal Normative. It's refreshing change from Le Guin's depiction of men and masculinity as the universal Normative, though Leckie continues to lack the intersection of sex with gender variant characters or even a

strictly definable gender variant character such as an intersex, trans or gender-fluid character. The closest is Breq, the narrator, who is an AI consciousness in a human shell.

Breq is an outsider in almost every aspect. She is a genderless but female, an artificial intelligence with emotions, a vast warship reduced to a single body. She is seemingly asexual and aromantic in a world unconstrained by gender and sexuality, Radchaai but not human, and in the passage below she has come home to a place she has never been. This passage starkly describes Breq's unique character and can be read as a metaphor for her purpose in the text. Breq's purpose as a warship was to prepare stations, always leaving before completion, serving as the first step to building new societies and civilisations. The same can be said of her role in *Ancillary Justice*, to open the discourse for new gender identities and new structures of society, challenging that which came before, though she will never see it complete;

I saw them all, suddenly, for just a moment, through non-Radchaai eyes, an eddying crowd of unnervingly ambiguously gendered people. I saw all the features that would mark gender for non-Radchaai-never, to my annoyance and inconvenience, the same way in each place. Short hair or long, worn unbound (trailing down a back, or in a thick, curled nimbus) or bound (braided, pinned, tied). Thick-bodied or thin-, faces delicate-featured or coarse-, with cosmetics or none. A profusion of colours that would have been gender-marked in other places. All of this matched randomly with bodies curving at breast and hip or not, bodies that one moment moved in ways various non-Radchaai would call feminine, the next moment masculine. Twenty years of habit overtook me, and for an instant I despaired of choosing the right pronouns, the right terms of address. But I didn't need to do that here. I could drop that worry, a small but annoying weight I had carried all this time. I was home. This was home that had never been home, for me. I had spent my life at annexations, and stations in the process of becoming this sort of place, leaving before they did, to begin the whole process again somewhere else. This was the sort of place my officers came from, and departed to. The sort of place I had never been, and yet it was completely familiar to me. Places like this were, from one point of view, the whole reason for my existence. (Leckie, 2013, p. 238)

Just as it is Breq's purpose to lay the foundations for future civilisations, so is it the purpose of this thesis to act as the first iteration of gender fluid science fiction to intersect gender variance with a strong cast of male, female and gender variant and sexual characters. Just as Breq has come home to a place which has never previously been her home, so too do I want to create a space of welcome and acceptance for others who may not have previously felt that welcome or acceptance, for people who have previously occupied a space outside the limits of acceptable gender variance.

Chapter Three: First-Person Gender Ambiguity in John Scalzi's *Lock In* (2014)

The third study of the exegesis is John Scalzi's 2014 novel *Lock In*, which explores gender variance through the gender ambiguous narrator Chris Shane, who is never referred to with gendered pronouns. If Le Guin set the limits of gender variant science fiction and Leckie progressed it with her inclusion of women and femininity, then Scalzi can be said to have failed to transform the discourse from 1969. *Lock In* has an overwhelmingly male and masculine cast and though Chris Shane is intended to be gender ambiguous, their character is almost impossible to read as female given the exclusion of almost all women and femininity. Nor does Scalzi manage to intersect sex with gender fluid characters or depict any sort of gender-variant character. The creative artefact *Nothing like the Sun* thus exists to build upon Le Guin and Leckie while avoiding the mistakes of Scalzi.

Lock In Synopsis

John Scalzi's 2014 science fiction police procedural novel *Lock In* is told from the first-person perspective of new FBI Agent Chris Shane. Shane is the autodiegetic narrator and is part of the one percent of people who were left in a locked-in state after being afflicted with Hadens Syndrome. A locked-in state is a medical condition from the real world where a person is conscious and aware but completely unable to move due to a total paralysis of the voluntary muscles. As a result, Shane of *Lock In* uses a 'threep' (taken from the name 'C3PO') – an android body capable of receiving a locked-in patient's consciousness. During the course of *Lock In*, Shane is the major force behind a murder case where the murder suspect is an Integrator. An Integrator is a person who was affected by Hadens Syndrome but was not left in a locked-in state.

As a result, and with the help of some cybernetic implants, Integrators can receive the consciousness of a locked-in person, allowing the ability to experience, smell and taste the world outside their locked-in bodies.

First-Person Gender Ambiguity

What *Lock In* leaves ambiguous is if Shane's gender is male or female. Scalzi's approach to gender of first-person gender-ambiguity is very similar to one of the techniques used in the creative thesis *Nothing like the Sun*. However, Scalzi's text is problematic in several ways, the first of which is Scalzi's use of the first-person narrative: 'in speaking, the "I", assumes the totality of language and, hence, speaks potentially from all positions – that is, in a universal mode' (Butler, 1990, p. 117). Given the historical dominance of male protagonists in science fiction and action texts, this universal mode may be more likely to be read as a default male perspective until proven otherwise. Paired with Scalzi's own male gender, assumption may be made that Scalzi is writing a universal (male) perspective, rather than a gender-ambiguous one or female one. Even a scholarly review by Alejandra Ortega appearing in critical peer-reviewed journal *Foundations* (2016) consistently refers to Shane with male pronouns with no reference to or understanding of Scalzi's attempt at gender ambiguity.

Scalzi's depiction of the Hadens could be read as a metaphor for any marginalised group, which is excellent in its versatility but problematic as the Hadens are continually made to be something 'Other' than human. This in itself would present an interesting stage for discussion in relation to identity, individuality and disability if it were not for the fact that Hadens were repeatedly required to modify their behaviours to match expectations of humanity. This brings to mind the argument that 'if only one argument or way of being transgender is presented, there is no choice but to capitulate' (Siebler, 2016, p. 151). If the Hadens (particularly the gender ambiguous Chris Shane) are read as a metaphor for Otherness and, by extension, trans identities then their conforming to 'Same' (male/female) expectations teaches the reader that one must always hide their Otherness. Again, this could stand as a strong metaphor for the current restriction on gender as a binary by demonstrating the pressure to conform, however it is problematic in its repetition of the age-old division of all writing, not just literature: just as 'male' is 'human' and 'female' is a gender, in Scalzi's text 'gender' equals human and Haden does not. This is a negative for trans and non-binary representation as it continually keeps those identities at arm's length. Critical readings are necessary to combat pervasive and unjust stereotypes. Simply put, 'for people who embody the very identities that are being marketed and consumed, we must critically think and talk through these representations, resisting the stereotypes and assimilation tropes' (Siebler, 2016, p. 6).

The use of first-person gender ambiguity in *Lock In* and the metaphor of 'Otherness' are two of the ways Scalzi draws attention to the intersection of gender, bodies and science fiction. This intersection of gender-ambiguity and science fiction is best described in relation to Ursula Le Guin's *The Left Hand of Darkness*, that 'the text *performs* androgyny, or invites the reader to perform it, and it is not the same performance for any two readers or even any two readings by the same observer' (Attebery, 2002, p. 134). Though all my readings of *Lock In* have me personally convinced that Le Guin's Gethenians and Scalzi's Shane are performing a universal (male) gender, future readings or readings by other audiences may perceive a female performance of gender, or even something other. With that being said, it is important to note that Scalzi's Shane fails to perform androgyny in much the same way that Le

Guin's Gethenians did more than forty years prior; in this regard, Scalzi can be said to have failed to evolve the discourse surrounding gender fluidity in science fiction.

1. Maleness, Men and Lock In

1.1 The Relationship between Author and Gender

A problem with Scalzi's attempt at first-person gender-ambiguity is directly linked to names – that of the author and that of the protagonist. The protagonist's lack of gender opens up questions about the connection readers create between narrator and author and Scalzi's gender as male bleeds into the reader perceptions of Chris Shane. Therefore, there is an alignment between author gender and text that can be summed up by the belief that 'people couldn't seem to hear what I was saying over the sound of my body' (Wilchins, 2004, p. 143); Scalzi's attempt at gender-ambiguity is clouded by the presence of his gendered body and name. Shane's name, whilst arguably gender-ambiguous, still carries strong connotations of masculinity and once paired with John Scalzi's maleness, Shane becomes overwhelming male and only genderambiguous in theory.

On the topic of gender-ambiguous characters in science fiction, it is argued that 'in each of these cases, however, it is possible to force the character into a more conventional category: by the story's end, the author or reader (or both in collusion) discovers the 'real' gender of the characters and reinterprets events accordingly' (Attebery, 2002, p. 9). Such a technique is employed in Ann Leckie's *Ancillary Justice*. The majority of reviewers observed that Lieutenant Awn performs a female gender and Lieutenant Skaaiat a male. Whilst their genders and Shane's are never explicitly mentioned all I can say is that in my readings of *Lock In*, Shane was and is unequivocally male. This is due in part to Scalzi's male-dominated cast and my own personal negotiations of gender and identity. These personal negotiations in reading are described as 'just one episode in a reader's ongoing (re)negotiation of his/her gender identity' (Cranny-Francis, 1992, p. 261). Thus, though the unspecified gender of the narrator is an excellent technique for problematising the cultural pattern that gender is a keystone of identity, 'the explanation of a work is always sought in the man or woman who produced it' (Burke, 1995, p. 126). The answer to Shane's gender is sought in the *man* who created it and is not aided by Scalzi's man-heavy text.

1.2 The Privilege Granted to Maleness in Lock In

It is difficult to interpret Shane as anything but male when the text is flooded with important male characters and only a single female character of note. Shane's FBI partner Leslie Vann is the only female character with an active role. Certainly, other female characters exist in Shane's housemate doctor Tayla, Shane's mother Jacqueline (whose name is mentioned once and whose lines can probably be counted on one hand), almost pointless character Detective Trinh, and Haden-rights activist Cassandra Bell (among barely-mentioned others). However, when faced with the male power-players such as CEO Lucas Hubbard, wealthy lawyer Samuel Schwartz, Shane's basketball-player turner senator-hopeful father Marcus Shane, CEO husbandduo Rick Wisson and Jim Buchold, pivotal Integrators Nicholas Bell and Johnny Sani, and talented coder and roommate Tony, the female characters are twodimensional at best, with the exception of Vann. And these are only the major male characters. The vast-majority of once-off characters are males - from the man advertising a janitorial position, to police chiefs, threep dealership owners and assisting Officers in other states. Even the depth given to the characters vastly differs by gender – Shane's roommate Taylor is a doctor and little else is known about her yet Shane's other housemate Tony contracted Hadens syndrome at the age of eleven,

is a fan of *Tron* and is the best friend of the son of the real estate agent who showed Shane their communal living. Shane's father has literally four pages of introduction detailing his basketball career, political career, awards, business acumen and efforts to humanise and help Hadens syndrome patients, yet Shane's mother is a bracketed note in her husband's introduction which simply refers to her as the daughter of an old political family. Science fiction, as a medium, is 'a useful tool for investigating habits of thought, including conceptions of gender' (Attebery, 2002, p. 1) and it is clear that Scalzi's conception of gender has men at the helm of power and women in the sidelines. This is problematic as 'gender stereotypes cause real, profound and pervasive social suffering and hardship' (Wilchins, 2004, p. 141). Scalzi's representations of gender in the medium of science fiction and the possibility for social suffering and hardship bring to mind the idea that 'beliefs about gender have political, social and moral ramifications' (Foss, Domenico & Foss, 2012, p. 5) and by reinforcing the cultural pattern of ambiguous gender performances as inhuman, Scalzi is doing more harm than good and is in no way encouraging any 'Others' to be seen as people. Le Guin's 1969 novel The Left Hand of Darkness with its derision and omission of women and femininity could be argued to be reflective of the times in which it was written, however Scalzi's 2014 Lock In continues to place women and femininity into the roles of footnotes and trophies.

2. The Metaphor for 'Otherness'

2.1 The Intersection of Minority Identities – Gender and Disability

Scalzi's depiction of the Hadens patients is both excellent and problematic as a metaphor for 'otherness'. Scalzi continually expresses displeasure through his characters when others call the Haden patients 'victims' or 'sufferers' as being a Haden is simply another way to live. Shane was afflicted with the syndrome at two

years old and has essentially no memories of operating their physical body, however Hadens in their threeps must continually conform to human gender/able-bodied behaviour. Scalzi repeatedly impresses the distinction between Haden and human and this distinction, paired with Scalzi's poor representation of women, conveys to the reader that male is human/gendered and Haden is not.

Though Hadens patients are human consciousnesses in android bodies, a division is constantly made that Hadens are something Other than human and there is a repeating motif that they must still conform to human ideals of physical acceptability; in this regard and with Haden standing as metaphor for Other and Hadens-patient Shane occupying an ambiguous gender, Scalzi is strictly underlining the limits of acceptable gender performances. This challenges the process of normalising something Other. Conversely, it draws attention to the difficulties in finding acceptance as that Other. Take, for example, the following scene between Shane and another Haden inhabiting a threep: 'Schwartz turned his head to her. The Ajax 370 model's stylised head bore some resemblance to the Oscar statuette, with subtle alteration to where the eyes, ears and mouth would be, both to avoid trademark issues and to give humans conversing with the threep something to focus on. Heads could be heavily customised and a lot of young Hadens did that. But for adults with serious jobs, that was déclassé, which was another clue to Schwartz's likely social standing' (Scalzi, 2014, p. 38). Threeps are not acceptable when customised, only when plain and bearing at least a passing resemblance to human features. Further, threeps are purposely limited in their physical abilities to make them as much like humans as possible - their strength and speed is limited to average human capabilities. Scalzi's text presents more rich avenues for discussion revolving around disability than it does about gender.

2.2 The Name and Depth of 'Otherness'

I cited Riki Wilchins in my second chapter 'Third-Person Gender-Ambiguity in Ann Leckie's Ancillary Justice', where Wilchins observes that 'there is not a single word for people who do not fit gender norms that is positive, affirming and complimentary. There is not even a word that is neutral' (Wilchins, 2004, p. 38). This is another issue with Lock In. As Shane's gender is intentionally left ambiguous, they are continually referred to as 'kid' and 'the child of [their famous father]'. When meeting threeps who do not have their public information on display (information which includes their gender), Shane refers to these people as 'it'. This may be read as Scalzi's attempt at gender-parity by not reverting to an assumed male gender but it problematises the depictions of Other. Why did Scalzi not use the commonly accepted 'they' pronouns instead? Scalzi's world is a pleasure to read about, however his characters let him down. Scalzi is problematising all the wrong things – he problematises 'Otherness' yet writes Chris Shane as basically perfect. Shane is incapable of mistakes, extremely competent in their job, a skilled fighter, beloved by everyone they meet, a diplomatic speaker and a humble rich-kid working in the FBI for the good of others. There is not a single incident in which Shane follows the wrong lead, personally makes an enemy or faces a setback because of their own actions. At the very worst, Shane is accidentally rule once: 'Genevieve turned to look at me and I realised belatedly that I didn't have my own personal data out on the common channel. Some Haden's found that rude' (Scalzi, 2014, p. 65). Simply put, Scalzi's attempt at 'Othering' and gender ambiguity in the form of Chris Shane is let down by Shane's flawless twodimensional characterisation, overbearingly male supporting cast and lack of sexual (or otherwise) connection with other characters.

2.3 Unsexing the 'Other'

Scalzi, Leckie and Le Guin all keep the Other strictly segregated sexually from the Normative which has the effect that gender variance is a journey of acceptance (Le Guin), a subversion of masculine hierarchies (Leckie) and a challenging but ultimately pointless writing exercise (Scalzi). These three texts set the limit that sexual interaction lies outside the limits of acceptable gender variance.

Shane shows no romantic or sexual interest in any other character, male or female, which is significant to note in this research as a character trait. However, there is not a single Haden who is married or otherwise in a relationship or who expresses sexual desire or romantic feelings. The closest is Schwartz, who fathered two children for a pair of married women via seminal extraction and artificial insemination. The Hadens are very clearly capable of feeling their physical bodies, such as the pain from a bedsore or the ache from a molar extraction, and a full range of emotions like happiness, anger and pride yet they are utterly sexless. The omission just serves to further segregate and dehumanise the 'Other.'

So what picture is signified if Shane's gender-ambiguity is clouded by Scalzi's very clearly male gender, Shane is depicted unrealistically faultless and all Hadens are stripped bare of sexual and romantic desire? As Scalzi himself says through Shane, 'the point was to encourage the unaffected to see threeps as people, not freaky androids that had just popped up in their midst' (Scalzi, 2014, p. 83). Yet Hadens, and in particular Shane, are depicted as genderless seemingly perfect androids without any sexual or romantic desire. Scalzi is in no way presenting gender variance or evolving the gender fluid science fiction discourse. Admittedly, Scalzi may not have ever intended for *Lock In* to do this, and may instead have made Shane gender-ambiguous

just for a creative challenge but his attempt at gender fluid science fiction may have 'political, social and moral ramifications' (Foss, Domenico & Foss, 2012, p. 5). Scalzi is only reinforcing the cultural pattern of genderlessness as inhuman and fails to present the possibility that 'Others' could be seen as people. Without gender, the Hadens are not human: 'the mark of gender appears to 'qualify' bodies as human bodies; [...] The bodily figures that do not fit into either gender fall outside the human, indeed, constitute the domain of the dehumanised and the object against which the human itself is constituted' (Butler, 1990, p. 111). By unsexing the Hadens patients, Scalzi is signifying that even in 2014, 'Otherness' does not intersect with the Norm.

3. The Intersection of Gender, Bodies and Science Fiction

3.1 Transgressing Gender Norms

The value of science fiction lies in the possibilities for 'investigating habits of thought, including conceptions of gender' (Attebery, 2002, p. 1). The speculative nature can 'encourage writers to ask questions about the biological basis of sexual division and allow them to explore alternative formulations of society and the individual psyche' (Attebery, 2002, p. 4). This is certainly true for *Lock In* – the world Scalzi has created is a fascinating exploration of the future of science in regards to robotics, cybernetics and neurotechnology.

As has already been mentioned, not a single Haden has any sexual or romantic traits and what must now be introduced are the Integrators of *Lock In*. Integrators are a very tiny subset of people that contracted Hadens syndrome that did not result in a locked-in state but did alter the neural pathways of their brains to the point that another Haden consciousness can 'ride along' once the necessary hardware is installed in their heads. So whilst all Hadens seem to be entirely aromantic and C. ROPER, 2064037

asexual, classified as 'it' until identified as male or female, it is still a matter of shame or perversion to use an Integrator whose physical sex does not match your own. This is signified when Samuel Schwartz is unable to source a male Integrator at short notice and his consciousness must instead occupy the body of a female Integrator: 'Schwartz looked down at his body. [...] "I know some Hadens who enjoy crossgender integration, but I'm not usually one of them"' (Scalzi, 2014, p. 87). Not only are Hadens required to be as human as possible in their facial appearance and physical capabilities, they must also limit or hide their own differences for the sake of 'normal' people and conform to their own physical sex as often as possible. As Shane says whilst conducting part of their investigation, 'I could display the information on my chest screen but it turns out people feel uncomfortable staring into your chest' (Scalzi, 2014, p. 193). Why must Shane forego some of their own Other identity for the sake of the Normative?

3.2 Signifying and Reinforcing the Gender Binary

Scalzi does not in any way *perform* androgyny or gender-ambiguity in *Lock In* or invite the reader to perform it. The 'Other' is forced to conform to human standards or face discomfort or the loss of social status, and women, femininity and sexuality are sorely lacking. It's necessary to respond critically to Scalzi's narrative as we can understand 'discursive exclusion as exclusion, in the sense of displacement or marginalization, *from* the discourse production, *in* the discourse, and *through* the discourses' (Herzog, 2016, p. 173). Scalzi is teaching readers that gender is a binary with men/masculinity at the helm and women, femininity and sexuality in the margins. It can be argued that Scalzi is attempting to highlight how new identities are

contested and the struggle faced by those identities in the search for acceptance but all he serves to do is reinforce the cultural patterns that Otherness is not human, not acceptable and not to be intermixed with the Normative. This is problematic as the Normative is not stable set of signifiers: 'the "signs" that construct such histories and identities – [...] – not only differ in content but often produce incompatible systems of signification and engage distinct forms of social subjectivity' (Bhabha, 2004, p. 252). Mehta and Dementieva observe 'feminine items on the BSRI [Bem Sex-Role Inventory] include expressiveness, understanding, and sympathy; masculine items on the BSRI include competitiveness, assertiveness, and dominance' (2017, p. 605). However, it's important to note that the 1974 BSRI test allows for androgyny (gender fluidity) and indifference (agenderism) but Scalzi's 2014 *Lock In* does not. Researchers can observe that academia acknowledges variant gender performances but the mainstream popular culture rarely captures and proliferates diversity, hence the need for popular culture that positively expresses variant gender performances that combat gender policing.

A textual analysis of Scalzi reveals *Lock In* only serves to reinforce the notions that to be Other is to be less than human. This analysis is important as 'the feminist critic is traditionally concerned with the relationship between "fiction" and "reality" (the latter perceived, ultimately, as the truth), with how the two intersect, mime each other and reinforce cultural patterns' (Burke, 1995, p. 187) and Scalzi is assuredly reinforcing pervasive and unjust culture patterns that work against intersectional feminism. Feminism, concerned with the intersection and representation of all genders, includes 'gender rights [which] must become something more than this stepchild of gay rights and feminism that is identified solely by the right to transition from one sex to the other' (Wilchins, 2004, p. 149) Scalzi's novel, which enforces the

binary with men/masculinity at the helm, works directly against gender rights and must be critically combated. Being male is not the only way to be human; being transgender is not the only way to exist outside the gender-binary; identities do not just vary in gender, they vary in race and sexual preference and a myriad other ways. It is important to represent these genders, sexualities and races and represent them both well and intersecting with the 'Normative' as 'people are more complex than the movements that seek to represent them' (Wilchins, 2004, p. 152) and Scalzi fails to actually represent *any* gender or sexual variance. It must be noted that *Lock In* could be a valuable contribution to the study of representing disability but Scalzi's choice to leave Shane gender-ambiguous instead forces *Lock In* into the realm of gender fluid science fiction.

4. Exclusions Within Lock In

Though *Lock In* is an evocative science-fiction world let down by its predictable plot, clichéd dialogue and bland characters, much can still be learned from Scalzi's intersection of science fiction and gender. Because of the problems (and successes) of *Lock In*, we can see where literature is unintentionally reinforcing cultural patterns, patterns where a first-person narrator is overwhelmingly perceived as male, the majority of powerful, interesting characters are men and to be Other is to be without humanity. Shane's unspecified gender works well to problematise the notions of gender as a foundation of identity. This gender-ambiguity could be a step forward in loosening gender and sexual boundaries if the balance of gender in *Lock In* was not so flawed. The effects of these flaws have far-reaching consequences as 'all fiction is engaged in both theory and practice, indeed all writing, all speech is doing both/and rather than either/or' (Larbalestier, 2002, p. 8) and what Scalzi is doing is theorising

non-binary genders as something inhuman and practicing a repetition of cultural patterns of men as characters and women as props and scenery. Scalzi, in this regard, has failed to evolve the discourse of gender fluid science fiction from Le Guin in 1969. What other ideologies can be extracted from Scalzi's exploration of non-binary gender in science fiction? It is permissible to be Other, as long as conformity is in place with regard to Normative performances of appearance and etiquette. Rather than broadening the discourse of what it means to be Other and exploring alternate gender identities, Scalzi has dehumanised the Other and severely overrepresented men as characters and underrepresented women and non-binary characters. Rather than being gender-ambiguous, Scalzi's *Lock In* is universal (male), not gender-fluid.

4.1 Learning from Lock In

To compare *Lock In, Ancillary Justice* and *Nothing like the Sun*, Shane is a human consciousness in an artificial body, Breq is an artificial consciousness in a human body and the Narrator of *Nothing like the Sun* is a human consciousness in a human body; already the creative artefact presents Otherness as human. Shane is sexless; Breq is sexless; the Narrator is sexual and romantic; the creative artefact does not unsex Otherness as seen in these exegetical case studies. Shane is defensive about their Otherness, required to hide or limit their differences for the sake of humans and seen as unacceptable or a target for ridicule, despite Hadens having been around for over thirty years in-text. The Narrator of *Nothing like the Sun* is utterly unremarkable and accepted in whatever gender they are performing, presenting an iteration of gender variance that does not present gender variance as completely gender radical. What message, then, are these texts presenting about non-binary gender identities?

should be hidden and compromised and that men are characters and women trophies. *Nothing like the Sun*, in comparison, seeks to present alternate gender performances as unremarkable, commonplace and acceptable, supported by strong representations of women and femininity and intersecting sexually with other characters.

Lock In presents a universal (male) perspective, not a gender-fluid one, nor does Scalzi in any way perform androgyny through Shane. His use of first-person gender-ambiguity is completely pointless especially as his metaphor for Otherness is more strongly linked to representations of disability, rather than non-binary genders. Every important character is male, all characters with depth and back-story (other than Vann) are male too and all active roles are men. How can Shane be anything but male? The only signification readers can take from *Lock In* is that to be male is to be human, reinforcing the early limits set by Le Guin that acceptable gender performances are male and masculine. With the omission of female and feminine gender performances and the lack of intersection of sex and gender variance, Scalzi's novel fails to further the discourse of gender fluid science fiction from Le Guin's *Left Hand of Darkness* more than forty years prior and continues to reinforce the limits of acceptable gender variance established at the same time. To claim non-binary status, it is necessary to be passably male and/or masculine.

Conclusion: Research Reflection – *Nothing like the Sun* (2018)

Nothing like the Sun was written to test the limits of gender performativity in science fiction; to do this, I had to study what representations were currently missing from acclaimed texts and authors in that field. Reading Le Guin's 1969 text *The Left Hand of Darkness* revealed a harsh exclusion of women and feminine alternate gender performances; this exclusion was addressed to some degree in Leckie's 2013 novel *Ancillary Justice*, which used female pronouns as neutral and featured a female-gendered protagonist but had no non-binary characters. Scalzi's 2014 text *Lock In* regressed the discourse with an excessively male-focussed narrative and a persistent message that the Other must conform to the Normative. None of these texts sexually or romantically intersected the Normative and the Other. The creative thesis *Nothing like the Sun* thus exists to expand the limits of acceptable gender performances by providing positive representation to women, femininity and non-binary characters and to romantically and sexually intersect the Normative with the Other in an effort to combat gender policing and to reverse the sexual segregation of non-binary gender performances.

Note on Nothing like the Sun

It's necessary to begin the Reflection by expounding upon two points: firstly, a justification for why I have not formulated the sexed society of *Nothing like the Sun* 'from the ground up' such as reimagined sexed bodies over identifiably human bodies and, secondly, an explicit explanation of how the creative thesis is innovative.

Nothing Like the Sun is built around a society identifiable as our own, situated only a short but undetermined period of time in the future. The sexed bodies of this society are clearly listed during a scene in which the Narrator is reading through their client list and includes men, women, transmen and women and intersexed individuals. I made a conscious choice when choosing the three texts of the exegesis and when writing *Nothing like the Sun* to focus specifically on formulations of gender that are already recognised as possible in our current society, if not necessarily represented in mainstream fiction. In the case of Nothing like the Sun my reasoning can be surmised by Wolmark (1994) who observes that science fiction can 'undermine ostensibly clear-cut distinctions between self and other, human and alien. It explores possibilities for alternative and non-hierarchical definitions of gender and identity within which the difference of alien and other can be accommodated rather than repressed' (p.2). Much like my arguments in the exegesis, I use 'alien' here in reference to othered identities, rather than extra-terrestrial alien races and use science fiction to accommodate those sexed identities that lie outside the commonly accepted binary. It was important for me to redress the omissions of the three texts of the exegesis in a manner that brought non-binary identities into the forefront of the narrative without hiding them behind metaphorical alien races. Rather than having the narrative accommodate hypothetical alien races and bodies I wanted the narrative to accommodate grounded, realistic and possible iterations of human sexed bodies that are actually *real*. I wanted to create a space for the *exact* identities omitted by Le Guin, Leckie and Scalzi rather than allegories of them.

With that being said, it must be noted that the character Orion who stands for trans identities is arguably non-human. Orion is a gynoid (female robot) whose artificial intelligence programming was written as male. Upon gaining sentience Orion declares that she is female and prefers to be referred to with female pronouns and the word 'gynoid' rather than 'android'. I made Orion a robot rather than fleshand-blood human for several reasons. One, just as it was important for me that the alternative gender performances of *Nothing like the Sun* be unremarkable and completely accepted, it was similarly important that Orion's 'trans' gender identity be unremarkable and accepted – I wanted the focus to be on her as a character first and her gender second. Secondly, it is not necessary to be innovative and buck the trend in absolutely every aspect of my creative response. As Lavigne (2013) observed in her study of cyberpunk fiction from 1981 to 2003, 'artificial intelligences [have been used] to great effect in challenging gender roles and performativity' (p. 82). Though Orion is a robot rather than flesh-and-blood human, the creative thesis is thus innovative in the way that Orion does not feel the need to change her physical appearance to match her identity. She does not feel the need to perform a feminine gender or conform her own appearance to *be* female. This is further discussed in section 3.3 of this chapter: 'Orion'.

The creative thesis is innovative in more ways than one and these innovations are important not only in regards to addressing the omissions identified by the creative thesis but also in regards to their possible social impact. The creative thesis is innovative in that although each individual component of non-binary gender performativity experimented with may exist in other texts, they do not exist together which allows for new intersections and subjectivities to be studies. Women, femininity, gender variance, non-binary gender performances and sex – yes, these all exist in various texts, however, they do not exist together and nor do they exist in a format that consciously examines both their inception and reception. The creative thesis is not only innovative for its particular assembly of elements but also in the way that it acts as a bridge, attempting to build between older practices, incorporate positive elements of those practices and rectify the negative elements in the first iteration of a new method writing about non-binary gender performances in science fiction. Not only does the creative thesis attempt to address the omissions of women, femininity and sex with gender variance identified in the three texts of the exegesis through characters consciously written with their gender performances in mind, it also attempts to thwart interpretations of parodic gay/lesbian characters through a gender ambiguous main character who explores bisexuality with those non-binary gender performances. It is the sexual/romantic intersection of non-binary gender performances with binary genders that is innovative; it is the subtly non-binary main character who is perceived as acceptable, normal, sexual that is innovative; it is the inclusion of women and femininity in the realms of alternative gender performances that is innovative, rather than androgynous men and masculine non-binary characters. It is the conscious engagement with prior iterations and attempted centralisation and normalisation of those *real and current* identities previously held at arms length or fetishised that is innovative. It is the unremarkable portrayal in an attempt to humanise that which was previously relegated to the realm of Other that is innovative, especially when understood through a redress of omission, conscious creation and rejection of metaphor in favour of real identities.

Nothing like the Sun Synopsis

Nothing like the Sun is a dystopian science fiction text set an indeterminate way in the future revolving around involuntary euthanasia. This involuntary euthanasia practice is brought about in response to over-population due, in part, to genetic modification resulting in longer lifespans. Birth rates are cut to a certain number once every twenty-five years and people are employed as Euthanasia Encouragement Officers (EEOs) in a paramilitary. The Narrator of *Nothing like the Sun* is one of these EEOs and is never referred to with a name or gendered pronouns. Written in the first-person,

Nothing like the Sun follows the Narrator's quest to save their father, Yon, when he is selected for termination. People selected for termination are given 52 weeks to finalise their Wills and prepare for death and several other major characters join the Narrator during Yon's 52 weeks. The Narrator befriends Vincent Wynne, their newest client selected for termination, and Vincent's Generation One adult twin offspring Diana and Artemis while avoiding being tailed by superior officer Sergeant Winter Walker. These characters set up a low-tech communication network, discover a selection bias terminating the poor at a higher rate than the wealthy and set about saving both of their fathers. During this time, the Narrator finds a dumped robot body and Artemis (Art) uploads his homemade AI named Orion. Together, the group try to find a way to stop the involuntary euthanasia.

Gender Performances of Nothing like the Sun

These characters all explore different variations of gender. The Narrator's parents represent classic feminine women and masculine men; the Narrator's mother, Nova, is a petite woman who enjoys expensive jewellery and gardening when she is not working as a nanotechnologist and neurosurgeon. The Narrator's father, Yon, is a retired farmer who enjoys cooking and has been selected for termination on the basis of ongoing illness; his body is degrading due to a life of hard physical labour. The 22-year-old Generation One twins Artemis and Diana exemplify a feminine male gender performance and a masculine female gender performance respectively and help the Narrator on their journey. Artemis is a slender, sensitive young man with long hair who has a talent for programming and takes on the task of caring for his disabled father. His sister, Diana, is a muscle-bound young woman with a penchant for hard work, swearing, sex and alcohol. Lastly, Artemis programs a male AI who he names

Orion; Orion's consciousness is uploaded to a scrap robot body and gains sentience. Upon gaining sentience Orion declares that she is female and would prefer to be referred to as a gynoid. If 'android' is used to denote a male robot, then Orion, as a female, is a gynoid.

Nothing like the Sun was written to address what the limits of acceptable gender performances studied in The Left Hand of Darkness, Ancillary Justice and Lock In, and as such the exegesis has framed the creative thesis. Studying these texts revealed a persisting lack of women and/or femininity and sex in gender fluid science fiction. In regards to women and femininity, Nothing like the Sun thus features four important female characters (Nova, Orion, Diana and Seraphina Vega) and four important male characters (Yon, Vincent, Artemis and Winter). Based on my own perceptions as the writer of these characters, Nothing like the Sun features those same characters enacting different performances of femininity (Nova, Orion, Artemis and Vega) and masculinity (Yon, Vincent, Diana and Winter). However, none of those feminine or masculine characters strictly adhere to feminine or masculine traits. The feminine Nova, Orion, Artemis and Vega are, respectively, a ruthless businesswoman, appreciative of explosions, fiercely independent and, of course, a murderer. The masculine Yon, Vincent, Diana and Winter are, respectively, a baking enthusiast, a single parent, objectified and squeamish. Nothing like the Sun thus has a balanced cast of male and female characters each with a mixture of what I as the creator perceive to be masculine and feminine traits. What was important while writing the women and femininity of Nothing like the Sun was to get a diverse range of performances without falling into clichés. The classic feminine woman is represented in Nova, the Narrator's mother. Nova is petite and wears heels and expensive jewellery, however she uses her wealth to intimidate rather than impress. She's a nanotechnologist and neurosurgeon, a ruthless businesswoman and caring wife and mother. Her counterpart is the classic masculine male Yon, her husband. Yon was a farmer before his land was reclaimed and his body is degrading from more than a lifetime's hard physical work. Several of his joints have been surgically replaced but one of his knees is failing to heal. Due to his ongoing illnesses, Yon was selected for termination. He is proud and honest and enjoys baking; throughout the text Yon makes shortbread, pfeffernusse and cheesecake.

The Contribution of Nothing like the Sun

My original contribution to the field of gender fluid science fiction is in three parts. Firstly, the exegesis has identified the apparent and persistent limits of an acceptable deviation in gender performance from the first major iteration of non-binary gender performances in mainstream science fiction to current/recent texts. Secondly, I have then entered into conversation with these texts through the creative thesis by including those previously noted omissions. Lastly, I have then attempted to reflect upon the creative thesis to observe my own ingrained ideas of gender performativity and note where possible exclusions continue to persist.

I will first discuss the relationship between the two halves of this thesis and the intention for the creative thesis to work both in conversation with, and as an extension of, the findings of the exegesis. The three case studies of the exegesis have identified that acceptable non-binary gender performances are limited to iterations of maleness, masculinity and an exclusion of gender variance from sexual spheres. Similarly, the creative thesis has developed from that 'network of practices' and as a direct study and response to the texts of the exegesis. The creative thesis *Nothing like the Sun* builds upon the practices of *The Left Hand of Darkness, Ancillary Justice* and

Lock In and adds women and femininity and sex to the discourse, seeking to cease the exclusion of the non-binary from everyday practices and break the limits of acceptable gender variance. Kathleen Ann Goonan's essay in *Sisters of Tomorrow* (Yaszek and Sharp, 2016) 'considers some of the factors that have led to the erasure of women from SF history and the efforts of female scholars and artists alike to take back their chosen genre' (p. xxv). In turn, this thesis as a whole seeks to add my voice to the chorus of women *writing* science fiction but also address the erasure of women and femininity that exists *within* the pages of gender variant science fiction. To this extent, the exegesis and creative thesis are the two important halves of a single artefact that both identifies the persisting omissions in non-binary gender performances in science fiction *and* works to address those omissions through a new contribution to the field that works in direct conversation with those texts.

The positive contributions of the creative thesis can be best understood in relation to the omissions it attempts to redress. Little change is evident from Le Guin's *The Left Hand of Darkness* to Scalzi's *Lock In* almost fifty years later, demonstrating a persisting pattern of omission when it comes to women and femininity. In comparison, Leckie's *Ancillary Justice* has brought women and femininity into the discourse but continued to exclude gender variance from sex and romance and failed to explore gender identities outside the binary understanding of male/female. In this regard, *Nothing like the Sun* contributes positively to unlocking what possible gender performances are acceptable as long as they err toward hiding any conceivable femininity or femaleness – slim, shorthaired, flat-chested people typically masculine roles like the military and law enforcement. *Nothing like the Sun* has attempted to positively redress both the omission of women constructing alternative

gender performances and the omission of femininity is gender-ambiguity through the female characters and gender-ambiguous narrator of Nothing like the Sun. Furthermore, results of the exegesis show gender intersecting with different (human and alien) races in Ancillary Justice and The Left Hand of Darkness, different classes and ethnicities (black and upper-class) in Lock In and different regions (Earth and otherwise) in the three texts. However, there's a distinct lack of gender intersecting with sex and Nothing like the Sun was written not only to bring women and femininity into non-binary gender performances but also to bring sex into gender variance. Sex is almost conspicuously missing from the three texts of the exegesis, and though subtle references are made in regards to minor characters, the main characters of these explorations of gender in science fiction are totally sexless. Ancillary Justice's Breq is an AI in a human body but neither she nor any of the characters around her intersect with sex in any way. Agent Chris Shane from Lock In is a human consciousness in a robot body and though they can feel their physical body's needs (bladder pressure, tooth ache, headache), sexual arousal is never mentioned. Lastly, Genly Ai from The Left Hand of Darkness is a human male on an entire planet of ambisexual androgynes and their respective statuses of 'cisgender' (Normative) and 'variant gender' (Other) never interact, in part because of Genly's seeming disgust of their ambisexual potential. The creative artefact exists as a result of the exegesis and aims to fill a gap in the literature in the intersection of sex with gender variance and to build upon the works of Le Guin, Leckie and Scalzi by raising femininity, women and gender-variant characters to be as equal and accepted as masculinity and men, as well as to combat the policing of gendered performances. These inclusions are arguably 'new' and serve to move the mode of storytelling forward in a positive manner by actively engaging with that which came before.

Diverse groups of people can benefit from communicating stories of sex and romance with gender variant identities. First, those gender variant individuals benefit by being invited into the cultural sphere; no longer just a talking-piece or oddity kept at arm's length, the goal and benefit of *Nothing like the Sun* is bringing gender variant individuals into narratives of sex without fetishising or remarking upon the novelty of their gender variance. These explorations take away the commotion of sex with gender variance and instead present it as just sex. The positive contribution of this is bringing LGBTQI individuals out of theory and into culture with open arms. This benefits not only the LGBTQI community with positive representations of gender variant individuals but also demonstrates healthy relationships between people who exist inside the gender binary with those who exist outside of it, which may serve to both relax the gender dichotomy and allow readers to explore non-heterosexual and gender variant identities.

Lastly, by directly engaging with that which came before, the creative thesis offers a unique opportunity for reflection, not only upon my own ingrained ideas of gender performativity but also studying where possible exclusions continue to persist. It's also important to understand how these experiments with gender and sexuality are central to the narrative of *Nothing like the Sun*. To begin with, whilst writing *Nothing like the Sun* I was constantly conscious that each choice I made was operating on my own assumptions of what constitutes a masculine or feminine gender performance. Hair length, fingernail maintenance, care of aging relatives, monetary income, independence, sexual liberty, division of labour in the home, occupation, hobbies – I took each of these into consideration when writing each of the characters of *Nothing like the Sun*. It was imperative to me not only that these gender performances were central characters but also that their 'deviating' performances both expanded the

acceptable realms of performativity and also were not remarked upon. In this regard I intended for non-standard gender performances to be both unusual and unremarkable and in this way the characters had to be deeply detailed and completely central as well as unflinchingly accepted by most of if not all other characters without remark. My experiments with gender variance became central to the story - if the Narrator's gender was confirmed at any point as male or female then the gender performances of Artemis and Diana as the Narrator's romantic/sexual partners could be waved away as parodic repetitions of effeminate gay men or masculine lesbian women. It became central that the Narrator's gender and subsequent gender performance always remain ambiguous and became similarly important that traditional tropes of masculinity and femininity be eschewed completely or ascribed to characters of the opposite gender identity. In this regard it was imperative that the male character Artemis embody femininity without becoming a trophy to be won, a damsel in distress or a sexual weapon. Similarly, it was imperative that the female character Diana embody masculinity and be received the same way men who exhibit the same masculine performance are, rather than the way some masculine women are received – assertive rather than bossy, sexually liberated rather than promiscuous, and confident rather than haughty. In these two central characters and their relation with the genderambiguous Narrator my experiments with gender performances and the intersection of sexuality with gender became central, especially in regards to the three texts of the exegesis. Little change was evident from Le Guin's The Left Hand of Darkness to Scalzi's Lock In almost fifty years later, demonstrating a persisting pattern of omission when it comes to women and femininity. In comparison, Leckie's Ancillary Justice brought women and femininity into the discourse but continued to exclude gender variance from sex and romance and failed to explore gender identities outside

the binary understanding of male/female. As a response to these three texts *Nothing like the Sun*'s experiments with gender were central to exploring and expanding the limits of acceptable deviation, specifically the pattern of omission when it came to female characters, femininity and sex with gender variance. I have grouped the experiments of *Nothing like the Sun* designed to modify and agitate the gender binary through the themes of gender reversal, gender ambiguity and gender erasure.

1. Questioning, Modifying and Agitating the Gender Binary

1.1 Questioning the Gender Binary

The exegesis has framed this creative thesis in two major ways. The first is exploring the observation that 'the binary has not disappeared in the revisionist gender stories told by pop culture, but it has been questioned, modified and expanded' (Foss, Domenico & Foss, 2012, p. 127).

Nothing like the Sun seeks to question the gender binary by asking the reader to determine the Narrator's gender (if any) after all references to physical sex have been removed. The result of this is that 'when the constructed status of gender is theorised as radically independent of sex, gender itself becomes a free-floating artifice, with the consequence that *man* and *masculine* might just as easily signify a female body as a male one, and *female* and *feminine* a male body as a female one' (Butler, 1990, p. 6). Can the reader conclusively determine the Narrator's gender though their masculine or feminine actions alone? The Narrator thus questions the binary; how can gender be a binary when the same so-called signifiers of gender are evident in both men and women? Intentionally written as a midpoint between Art and Ana, the Narrator is sensitive, and crass, but also reflects that they've been raised to value honesty and pride. Early readers of the creative thesis have had mixed opinions of the Narrator's gender, with some assuming their gender was the same as my own,

one person arguing women could not perform the EEO job and some arguing that the Narrator just 'felt' like a man or woman. One reader assumed the Narrator was a man, given their sexual relationship with Ana and thus read the Narrator's romantic feelings for Art as simply the feelings of a protective older brother. Another reader assumed the Narrator was a woman, given their close relationship with their parents and weaker physical strength in comparison to Ana. Nothing like the Sun forces the reader to question their assumptions of the gender binary – is a woman less capable of killing for a living? The creative artefact also attempts to present some facts: bisexuality can be unremarkable and visible and the 'strength' of men and women is not clear, definitive or predictable. Nothing like the Sun thus demonstrates the ineffectiveness of so-called gender signifiers like physical strength, emotional sensitivity and sexuality to determine gender. The Narrator could then be read as any mixture of masculinity and femininity in any body – male, female, intersex, trans, gender fluid, non-binary. However, what becomes apparent from early readers of the creative thesis is that an assumption is always made toward normative genders (maleness or femaleness) and never the Other. Further study exists in writing a similarly gender-ambiguous protagonist with an eventual gender-reveal that is something Other than the gender binary.

1.2 Modifying the Gender Binary

Artemis and Diana give us concrete explorations of modification with a masculine female gender performance and feminine male gender performance; they were written by drawing on my own expectations of masculine and feminine gender performances and then reversing the associated gender and aim to expand the limits of acceptable gender performances by focussing on femaleness and femininity. Art is the embodiment of feminine sensitivity and is a caregiver for his father. Diana is the masculine manifestation of physical strength and coarse unapologetic behaviour; she is the breadwinner for her family. What was difficult in writing these characters was avoiding making parodic repetitions that dehumanised them or fell into the trap of clichés. Parodic repetitions are not without value however, as 'the possibility of gender transformations are to be found precisely in the arbitrary relation between such acts, in the possibility of a failure to repeat, a de-formity, or a parodic repetition that exposes the phantasmic effect of abiding identity as a politically tenuous construction' (Butler, 1990, p. 141). Their somewhat overdone traits of the slender intellectual boy and strong profane girl allow us to explore what forms of gender variance continue to persist in modern culture and aid us in writing more diverse characters in the future. In writing Nothing like the Sun and being conscious that their modified expressions of gender were still falling into the realms of common gender expression, albeit reversed, I did try to add depth to their characters. Art is vain about his hair, strongly independent and wilful, and Ana is crass, unflinching and vocal about her beliefs on equality across age and gender. The two of them take their parodic expressions of the opposite gender and turn them into strengths. Ana's masculine physique is admired, rather than being derided for being unfeminine and Art's feminine sensitivity endears him to others for his compassion, rather than seeing him as weak or unmasculine. At no point is either of them told to 'act like a girl,' or 'man-up,' demonstrating modifications of the expectations of the gender binary that are received without criticism. The female Ana and the feminine Art are one of several methods used to progress the discourse begun by Le Guin, evolved by Leckie and regressed by Scalzi. Where those texts have set the limits of acceptable deviant gender performances and framed the creative artefact, Nothing like the Sun has presented new formulations of gender performances that question those same limits.

1.3 Agitating the Gender Binary

If the Narrator has allowed us to question the binary and Art and Ana have shown us a transgression of the limits of gender performativity without repercussion then Orion allows us to agitate the binary. Orion is an AI whose programming was written as 'male.' Her consciousness was derived from six years of brainwaves taken from Art, Ana and their father Vincent. Upon gaining sentience (being 'born') Orion objects to being referred to as 'he'/'him', 'it' or 'android' and declares her female gender and preferred terms of reference of 'she'/'her' and 'gynoid'. There is no explanation for her gender variance, she is simply female and the other main characters accept this. Orion demonstrates that the gender one is assigned is not always congruent with the gender with which they identify and expands the binary by very clearly separating sex and gender and stands as an example of trans identities. If a person's sex and gender do not necessarily correlate, then what other gender performances are possible when sex is no longer tied to gender identity? Orion tends to be the favourite character of early readers of the creative thesis, closely followed by Ana, demonstrating that both feminine and masculine gender variant women are fighting against gender prejudices. These gender prejudices are defined as such: 'genderism, however, differs from these prejudices as it requires a contextual understanding of the spaces between male and female' (Browne, 2004, pp. 331-346). By positing Orion and Ana and even the Narrator and Art in the spaces between male and female, this creative-led research is combating genderism by writing these identities as acceptable and without backlash. This creative approach models interaction with gender variant characters to push a social and political agenda of acceptance. Nothing like the Sun aims to provide

positive representation of gender variance while challenging gender as a keystone of identity and is framed by that which came before – the exegetical study of Le Guin, Leckie and Scalzi and their varying exclusions of women/femininity/gender variance and sex.

2. Gender Reversal, Ambiguity and Erasure

The exegesis has framed this creative thesis in a second manner, with the study of Ann Leckie's *Ancillary Justice* through the theory that 'women writers offer, instead of the traditional male gender of narration, gender reversed, gender ambiguous or gender erased' (Donawerth, 1996, p. 176). Just as particular characters in Ancillary Justice best exemplify each of these explorations, *Nothing like the Sun* shows gender reversal, ambiguity and erasure through certain main characters. This reversal, ambiguity and erasure aims to test the limits of variant gender performances.

2.1 Artemis and Diana

Gender reversal is observed in different concentrations through the gynoid Orion and the twins Artemis and Diana. Artemis and Diana are part of the Generation One baby boom. Gen One are the first children born in around twenty years due to overpopulation and the story takes place 22 years after the birth of Gen One and three years before the birth of Gen Two. Due to the strict population control laws within *Nothing like the Sun* only a certain number of applicants were selected to have a child and these potential children all undergo in-womb genetic modification to rid them of genetic markers of diseases and predispose them toward certain physical and intellectual attributes. The twins' mother (also called Diana), upon being implanted with the embryo that would become Ana, somehow also fell pregnant with a second child and was permitted to carry both children to term as a study on genetically modified babies versus non-modified babies in the womb in regards to growth rates and viability. Their gender reversal takes place outside of the womb, however. Though less obvious than Seivarden in Ancillary Justice with the use of female pronouns and the revelation of male gender, Art and Ana also underwent a gender reversal in their design. Art and Ana's gender reversal takes place in the space between their assigned gender and their performed gender. Though they each identify with their assigned gender neither feels the need to strictly *perform* that gender. Thus Art is comfortable with his gender performance as a feminine male and Ana is comfortable with her performance as a masculine female. Just as Art feels no shame for his emotional sensitivities or long hair, Ana is unapologetic about her thick, muscular physique and vocal opinions. The other characters perceptions also contribute to Art and Ana's gender reversal. At no point are they negatively called out for their gender-reversed traits; there are no accusations of Art 'crying like a girl' for his sensitiveness, Ana is never called a 'bitch' in regards to her position of authority over men. This performance helps to normalise their behaviours and remove the negative gendered stigmas associated with those actions. Similarly, Orion's awakening and declaration of her female gender demonstrates gender reversal in Nothing like the Sun. Much like Art and Ana, Orion's gender reversal takes place between her assigned gender and her performed gender. Orion thus feels no shame in not performing the male gender she was assigned and Art does not seek to 'fix' her programming and conform her behaviour to her assigned male gender. Orion does, however, face incorrect assumptions of her gender and being referred to as 'it' by minor characters and this continual gender reversal and reassessment demonstrates to the reader the frustration gender variant individuals may feel when their gender is incorrectly assumed.

2.2 The Narrator

The Narrator is also an example of gender reversal, though their performance is more in line with Seivarden's from Ancillary Justice. My hope is that readers make an unconscious assumption of the Narrator's gender and, upon realising that the Narrator has no confirmed gender identity, undergo a process of gender reversal as they test their perceptions of the Narrator's actions against the other half of the binary. The reader must ask themselves why they have assumed the Narrator's gender performance the way they have and if they could reasonably read the Narrator as the other half of the binary. This process has been observed in early readers of the thesis who were not aware of the Narrator's nameless, genderless status. When questioned where they were up to in the story or if they're enjoying it, readers have framed their responses as 'he's just done abc' or 'I can't remember her name but'. This indicates that readers were making binary assumptions based on their own perceptions of the Narrator's gender performance. Once those early readers have finished the text I've always revealed that the Narrator doesn't actually have a name or concrete gender and all readers have so far been surprised. The discussion is usually one of puzzled amusement as they try to pinpoint why exactly they have made their assumption of the Narrator's gender, followed by a concession that the Narrator could easily be read as the other half of the binary. The story undergoes a process of reversal as all of the Narrator's actions are reconsidered in comparison to the possibility of a reversed gender. This process encourages the reader to question the biological basis of gender assignment if one character can easily be assumed as either half of the gender binary.

The Narrator also exemplifies gender ambiguity and erasure. My original intention with *Nothing like the Sun* was to submit this thesis without my obviously

gendered name attached, or even just my initials. Unfortunately, this was not permissible for examination reasons, though I do still hope to publish this novel under a gender-neutral pseudonym so that the form (gender ambiguous narrator) mirrors the theme (gender ambiguous author). The Narrator's gender ambiguity and erasure go hand-in-hand. The Narrator simply is genderless; they are not written specifically as either half of the binary. For the readers, this erasure is read as ambiguity. Until the reader is aware that the Narrator simply does not have a gender, the Narrator is merely ambiguously gendered and acting as a slate upon which the reader can impose their assumptions of masculinity or femininity and whatever gender they unconsciously read as a result. Gender erasure can also be seen to an extent in the minor character of Cameron Coineagan. Cameron was a janitor who worked at the building where the records for the termination selection process were stored. Cameron, like the Narrator, is genderless. This is intentional and was difficult to word without drawing attention to the attempt. As the Narrator sneaks into Cameron's apartment, poisons their DingDinner (essentially a microwave) and steals their uniform and access cards, it was important that Cameron was subtly genderless in the same way as the Narrator. This was both to permit the reader another opportunity to assume a character's gender and also to avoid the reader assuming the Narrator and Cameron are the same gender. The difference between the Narrator and Cameron's gender expression lies in the purpose of their character and the reader's perception of them; the Narrator asks the reader to assume their gender from so-called gender markers and Cameron asks the reader not to notice their gender; the Narrator's gender is ambiguous, Cameron's gender is erased. As such, Art and Ana, the Narrator and also Cameron Coineagan exemplify explorations of gender reversal, gender ambiguity and gender erasure. This allows us to both model different representations of gender

and to explore different balances of masculinity and femininity. Through these characters the creative thesis aims to encourage readers to consider their assumptions of gender in a manner similar to Scalzi's *Lock In*.

3. The Writing/Researching Experience

Studying Leckie, Le Guin and Scalzi and writing a response to their explorations of gender variance in science fiction has made me aware of my own assumptions of masculinity, femininity and gender variance. I will now address this character by character.

3.1 The Narrator

At first, the Narrator was difficult to write. I was constantly aware of making them 'too much' of one gender. If I made the Narrator too much of one gender, they would be read in collusion with my own gender. If I made them too much along the lines of my opposite gender then it would defeat the purpose of the genderlessness and leave me with something akin to *Lock In* – claiming genderlessness when all signs point to a particular gender. In the end, the Narrator actually ended up based very closely on myself. This is not to say that the Narrator and I share the same gender, merely that we share similar relationships with our parents and are both gifted with feminine sensitivity and masculine brashness. Some readers have said to me, 'but what are they really? A boy or a girl?' and there really is no answer to that. The Narrator is a person whose gender identity I do not know but I would like them to be non-binary. When speaking about my thesis and possible ideas for a second novel with my partner I will occasionally slip and say 'he' or 'she' instead of 'they' and I find myself asking what it is about that particular conversation that has led to me using that pronoun. Is it

because I am referencing a potential love storyline? Or is it because of how the character's gender appears in relation to certain other characters, like Art and Ana and Orion? Is the 'strength' of their gender performance modulated by the performances of the people around them? Writing the Narrator's physical description was surprisingly easy as their appearance is based on their lifestyle. Too proud to accept financial help from their parents and unable to live in the officer barracks because of Hooch (their pet dog), the Narrator thus became very slender due to their limited finances and seeming inability to take proper nutritional care of themselves. The Narrator is intentionally written as a blend of very ambiguously gendered signifiers. The Narrator is sensitive like Art and extremely self-critical. They're also prone to the same binge-drinking and sexual freedom as Ana. They're willing to go without luxuries to provide for their dog and are quite comfortable killing a person once every week. They're good with their hands as an amateur metal fabricator but not terribly fit. As I didn't want to privilege Art or Ana over one another, the twins are of 'medium' height and the Narrator, as an amalgamation of masculinity and femininity became 'medium' height as well. The Narrator has a repeated action of scrubbing their hands over their scalp when frustrated, so their hair may possibly be closecropped. The Narrator is intended to test the limits of binary gender performances with contrasting actions that may seem incompatible with one another. Their depiction was framed through the exegesis, which demonstrated that gender variance was permissible only when aligned with maleness or masculinity.

3.2 Diana and Artemis

Writing Diana and Artemis was not much easier. I named Diana first but struggled to name Artemis. I wanted the reference to mythology, given Diana's name and status as a twin but hated the name 'Apollo' for her brother, given the masculine connotations of the name. I also hated 'Artemis' as 'Artemis' is also a female goddess and hence came with feminine connotations. In the end I decided that 'Artemis' was not unheard of as a male name and there was no good reason that the feminine Art should not be named after the female Artemis. Writing Art and Ana I struggled with their genderreversed performances, worried that I was merely creating parodies of clichéd men and women in my aim to test the limits of deviant gender performances. To begin with Art, I made him the older twin simply because my first assumption was that Ana, as the more masculine twin, would have been born first. I gave him a long thicket of princess-style 'caramel-coloured' hair and made him the twin who remained at home to care for their disabled father. During each scene featuring Art and the Narrator I tried to make Art seem feminine in comparison - his nails are 'smooth pink ovals' to the Narrator's 'ragged stumps'. Art is sensitive to the point he takes on unnecessary concern, crying when he realises he has left his father alone overnight, afraid that if anything had happened to his father that it would be his fault for not being there. Despite his sensitivities, Art is strongly determined to achieve their combined goal. He works incredibly hard and has demonstrated his resoluteness to get his own way when it matters, such as buying his apartment with the funds he earned for the pioneering technology that created Orion. Despite being the same age as Ana at 22 years old, Art is shy when presented with sexual or romantic attention and comes across as younger and presumably more inexperienced. In reference to the exegesis, Art more than Ana tests the limits of deviant gender performances given the seeming alignment of non-binary with maleness and masculinity. Ana, as a masculine female, still holds to a more acceptable gender performance.

Writing each of the twins was a constant effort to avoid parodic examples of masculinity and femininity and so I'm pleased but surprised that Ana is so far the second-most commonly named character as the favourite of readers, after Orion. My perceptions of masculinity lead me to write Ana as emotionally hard. She forms no romantic attachment to the Narrator after they have sex and does not rush to Vincent's bedside after he suffers a massive stroke. Ana, by virtue of being the breadwinner of the family, lives alone in a better apartment than the family home, which left Art to care for their disabled father, regardless of whether or not he needed in-home care. Ana, with her dedication to hard work and her genetic modification and brain chips (civil engineering, infrastructure and architecture) quickly rose to a leadership position in her field. She's the same height as Art and the Narrator but thickly muscled. Her hair is the colour of 'ginger and honey' but I never specified a length. She's an extremely private and independent person, preferring to deal with problems herself and very practical and responsible in her approach to issues, even if her approach may seem insensitive. When her father suffers a massive stroke, Ana chooses to instead finish the last four hours of her shift at work rather than rush to his hospital bedside but she comes straight after work even though she is filthy and haggard. She is vocal about her opinions, especially when it comes to her choices or when people have let her down, and seems to enjoy swearing. Two male readers enjoy Ana's 'tough guy but she's a tough girl' character and one female reader hated Ana when she didn't go to her father's bedside. Ana may be crude and independent but she is not cruel or emotionless, she merely expresses herself in different ways to Art. However, what this novel questions is whether these two masculine female and feminine male characters can be read as 'acceptable'.

3.3 Orion

Writing Orion was a pleasure, partly because of the fun of trying to write a robot character with a personality and have her feminine character transgress the variant gender performativity limits studied in the exegesis. Orion is typically the favourite character of readers so far, and as I wrote her I had to be conscious that her personality was an amalgamation of Art, Ana and Vincent's brainwaves. That being said. Orion is her own person. She has a fascination with animals, finds explosions 'pretty' and has a dry, sarcastic humour that plays off of the fact she is an AI in a scrap robot body. She likes diamonds and jewels, is not afraid to ask for what she wants and is sensitive to the feelings of the people she cares for. Orion was always going to be a 'male' AI who identifies as female but I was surprised that minor characters persisted in referring to her as 'it' or 'he.' This offers an avenue for future study and could perhaps be done better, even if it does serve to demonstrate the pervasive injustice trans and non-binary people may feel at being misgendered. There were certain representations of trans characters I tried to keep in mind while writing Orion. One is a perceived lack of representations which 'embrace a transgender identity, that of a person who resists reconstruction of their body or a person who is fucking with the gender system by saying, "I am what I am. You deal with your discomfort" (Siebler, 2016, p. 160). To that end, Orion is content with her mismatched and repaired body: her original parts are burnished gold, her missing faceplate and chest-plate are replaced with silver-blue titanium, and her missing left arm is 3D-printed white plastic.

3.4 Sex and Sexuality

Writing the 'sex' and physical attraction of *Nothing like the Sun* was simple – genitals are not the only parts of anatomy used to depict closeness or physical affection or pleasure. Tracing lazy patterns on exposed skin, lips pressed against a bare shoulder, gently tucking the other person's hair behind their ear, dilated pupils and throbbing pulses are easy to write. However, the bisexuality of the gender-ambiguous Narrator was extremely important to me for two reasons. One was to avoid readers assuming the gender of the Narrator based on assumptions of heterosexuality if I only gave the Narrator one love interest. The other was to leave Art and Ana's sexuality as an unknown to avoid them falling into parodic fallacies of gay men and lesbian women; I wanted to impress upon the reader that feminine Art is not necessarily a feminine gay man and masculine Ana is not necessarily a masculine lesbian. I wanted to fight the cliché of feminine men as gay and the language of transgressed gender norms. It's observed that 'gay' is still used to denote anything the speaker deems 'stupid' (Nicolas & Skinner, 2012, pp. 654-658);

All things feminine are gay; gay is stupid; feminine is stupid; females are stupid; males who act like females are stupid. The syllogism of the patriarchy bears down on gender and sexuality, specifically and oppressively in relation to feminine gender and male biology: the two should never meet and if they do, no good can come. (Siebler, 2016, p.97)

In this regard, I wanted to reassociate femininity and women as a positive, especially as these traits lie outside the limits of acceptable deviant gender performances as observed in the exegesis. I also wanted to expand the boundaries of gender to recognise that masculine men and feminine women can be gay and masculine women and feminine men can be straight. This is due in part to the idea of sex-gender congruence: 'if heterosexuals are assumed to signal their sexuality via sex-gender incongruence, then there is no way for bisexuals to signal their sexuality' (Lucal, 2008, pp. 519-536). By making Art a feminine man and Ana a masculine woman my intention was to demonstrate the fallacy of the sex-gender congruence and leave it ambiguous which twin (if either) was gay. The value of a masculine female character lies in validating both masculine lesbian women as well as masculine heterosexual women (Halberstam, 1988, p. 268). If the Narrator is assumed male, then Ana is possibly heterosexual, demonstrating that sex and gender do not need to be congruent to be heterosexual, nor do sex and gender have to be incongruent to be homosexual. Ana's masculinity can exemplify both straight and gay women and does not necessarily make her less than a feminine woman. Her masculinity demonstrates some possible positive attributes for a masculine woman without any perceived backlash – her physique is ultra-fit and strong, she's in a leadership position over men and she prefers to solve her problems by herself. Masculinity is certainly not needed for any of these traits but it's important to model them to show that masculine women are equal to feminine women. Of course, placing these traits as masculine reveals my own assumptions of masculinity and femininity as the writer, but my hope is to demonstrate that characters that do not necessarily enact abiding male or female gender performances are just as valid as those who do. Masculine female identities, like feminine male identities, can provide positive representation, which is one of the major goals of this thesis. Art and Ana are recognisable identities for several reasons. The primary reason is both a 'celebration of, indeterminacy, flux, becoming and imperceptibility [and also characters who] successfully navigate the social world through the construction of a stable, recognizable identity' (McQueen, 2016, pp. 73-88). As such, Art and Ana are meant to be unremarkable in their subversion of masculinity and femininity. They are meant to stand as an example of acceptance and recognition of variant performances. The Narrator is also designed to do this to a

similar effect, given that their gender is unknown and they are wholeheartedly accepted in whatever gender identity the reader perceives them to have. Art and Ana have stable, recognisable gender identities and the Narrator has a subtly imperceptible but no less accepted gender.

3.5 Issues of Nothing like the Sun

There are certain gendered interactions in Nothing like the Sun I believe could have been written differently. The first is Winter's objectification of Ana. Though this objectification was important for the storyline in many ways (one of which was giving the Narrator an excuse to fight Winter and stealthily implant him with a GPS tracker), it would have been better if Ana's remarkable physique could have been appreciated without being sexualised. Winter repeatedly refers to Ana as the Narrator's 'girlfriend' or 'fuck buddy,' remarks on the incredible thickness of her thighs and asks a lewd question about the difficulties of a sex act between the Narrator and Ana, given Ana's weight and immense strength. Demonstrating Winter's realisation of his harassment and subsequent apology may go some ways to modelling better behaviour but perhaps there were other ways to create that storyline that did not involve objectifying Ana, especially as it resulted in the Narrator 'rescuing' Ana through a fist fight, even if that rescue was a farce for other purposes. Ana herself expresses frustration at the faux-rescue describing it as 'pretty fucking demeaning'. I believe that, unfortunately, my choice in writing in this style continues to propagate the value of maleness and masculinity over femaleness.

Similarly, I believe the reception other characters gave Orion could have been better. Orion obviously stands as an example of trans identities and I wonder if those other minor characters continual incorrect assumptions of her gender and use of incorrect pronouns and terms will be frustrating for trans or non-binary readers. It would have been ideal to model a perfect representation of acceptance of Orion's gender identity and perhaps this is a possible realm of further study. I believe this interaction is not without benefit though as it may hopefully educate readers on the importance of correct pronouns by presenting a favoured and likeable character suffering that injustice. In this regard, the purpose of Orion can be explained as such: 'while many tropes about trans* and gender creative youth focus on their suffering, this project hopes to advance a different narrative that calls for recognition, stemming from a misrecognition' (Miller, 2016, p. 8). The value of both recognising trans identities and combating characters that actively misrecognise trans identities is such;

These characters were complex and flawed. They showed us the way not by encouraging the audience to do as they do, but by asking the audience to think about what should be done, what could be done, and what the consequences were of these many choices. By presenting the characters' missteps, the audience is called upon to think about other ways and analyze the complexities of these messy situations. (Siebler, 2016, p. 117)

These messy situations include willfully persisting to misgender people even after being corrected. Instead of modelling behaviour for the reader, these characters were demonstrating the damage caused by their choice to disregard Orion's sentient female identity and inviting the reader to consider how they would behave when faced with gender variance. The value of Orion and other AI characters in popular culture is their value as a test of the readers' empathy;

Each of these works is an "empathy test" designed to challenge and to assay our capacity for identifying with the sentient humanoid robot. [...] By compelling us to feel moral respect for the humanoid robot despite the massively obstructive effects of the uncanny valley, science- fictional accounts of robot rights compel us to experience moral responsibility in its most heightened state. In doing so, they sensitize us to and revitalize in us the feeling of moral obligation itself. Such revitalization will become increasingly important as technology equips more and more human bodies with an ever- growing array of prosthetic parts. In other words: as more and more humans find themselves in danger of inhabiting the uncanny valley, science fiction will become increasingly important as a way of representing human rights. (Chu, 2010, p. 244)

Orion is thus an empathy test – a sympathetic, pleasant and positive character that tests the limits of acceptable deviation in gender performances. Her persisting femaleness and femininity is directly framed by the priority given to maleness and masculinity studied in the exegesis. Other characters continue to wilfully misgender her even after being corrected and it is my hope that the frustrating repetition forces the reader to think: what would I do?

4. Future Study

4.1 Further Research

Writing fiction I became conscious that my assumptions of femininity were 'slender,' 'long hair,' 'sensitive,' 'sexually shy' and 'caregiver' and it was frustrating to feel as if my characters were failing to explore variant gender performances in any fashion. Similarly, though Ana is the second-most popular character after Orion, I worry that she has become a two-dimensional parody of toxic masculinity disguised in a woman's body. Ana is a 'muscular,' 'crude,' 'commanding' 'breadwinner' and I'm concerned Nothing like the Sun is reinforcing the gender dichotomy instead of challenging the notion that these characteristics are strictly masculine or feminine. Ana has used her immense physical strength against the Narrator in anger, to lift them up by their shirtfront and has used binge drinking as a coping mechanism for stress but I believe there are positives to Art and Ana performing these parodic traits. The effect of compulsory masculinity is far-reaching and pervasive, described as 'a burden on many different kinds of men and boys, and it takes its toll in a variety of ways' (Halberstam, 1988, p. 273). Beginning with Ana, her masculinity is not necessarily a negative; for the most part, her masculine performance is a healthy one. However, her masculinity does serve to demonstrate how extremes of her behaviour can affect the

people around her as well as affecting herself. I tried to temper Ana's extreme masculinity in some ways, to show her self-restraint. When the Narrator finds Ana binge drinking alone due to the death and injuries their team has suffered. Ana lifts the Narrator by their shirtfront in frustration at their inaction. The Narrator is surprised that Ana has not trashed the apartment and Ana is puzzled, remarking, 'what kind of person to you think I am?' Ana is extremely powerful, physically, and though she uses her strength against the Narrator once and though this action is reprehensible, she never hurts them or engages in destruction. My intention was to subvert the expectations of emotionally stunted masculinity and model better (though not perfect) behaviour; just because Ana keeps her emotions to herself does not mean that she lashes out physically instead. Art, in comparison, is one example of the type of man we may find when most masculinity has been removed and the result is not a negative one. There is no crime in a man being slender, sensitive, and sexually shy and a caregiver – none at all. These are traits that were either missing from or condemned in the three texts of the exegesis; as such, the novel is framed by these omissions in an attempt to depict positive variant gender performances that have not been seen before. Art has demonstrated that 'feminine' does not mean being subservient or docile, and a feminine man is not a weak man and not lesser than a masculine man. Winter and Yon are masculine men who both find themselves requiring the help of feminine Art and this does not make them weak men either. Between Art and Ana I wanted to demonstrate that being masculine does not mean being emotionally strong, as Ana moved out of home after her father had a stroke and does not visit Art when he is injured; nor does being feminine mean meekness or weakness as Art stands up for his beliefs, continues fighting after tragedy and works through situations that stagger him.

I believe that Nothing like the Sun presents several new opportunities for study, particularly in creative-led research. The first avenue for further study is the study of *Nothing like the Sun* itself. The creative artefact explores a complex theme of voluntary euthanasia and takes that issue to the extreme by forcing it into the realms of 'involuntary.' Early readers of the thesis believed I as the writer was against voluntary euthanasia and I had to go over the whole novel and impress my opinions that voluntary euthanasia allows a person to die with dignity. This futuristic take on the issue was written to explore what issues we may face in the future with our rising population and the possible dark side of euthanasia. Nothing like the Sun also presented many depictions of different disabilities and one of my concerns with writing this text lay in the fact that many of these disabled characters were being killed, both willingly and unwillingly. It is not my intention to say that any person with a terminal illness will want to end their life or that any kind of disabled life is less worthy than an able one. My intention was to explore (albeit in a dystopian fashion) a possible structure of voluntary-euthanasia-gone-wrong but my depictions of disability definitely provide grounds for further study. As such, Nothing like the Sun allows the possibility for research into current explorations of euthanasia, disability, and gender variance.

The second avenue for future study is in regards to the depictions of gender variance and sexuality in *Nothing like the Sun*. Written as an answer to the lack of intersection between gender variant characters and sex in *The Left Hand of Darkness, Ancillary Justice* and *Lock In, Nothing like the Sun* aims to push a social and political agenda of acceptance. Whilst I'm not arguing that everyone should be attracted to everyone, regardless of gender identities and sexualities, I am trying to demonstrate that gender fluid people have been brought into our laboratories but not invited into

our homes. By this I mean that gender variance in science fiction has remained a study of the Other (*The Left Hand of Darkness*), and a subversion of the Normative (*Ancillary Justice*) and an exercise in writing (*Lock In*). Nothing like the Sun, as a continuation of these texts and as a reconfiguration of Butler's theory of gender performativity, exists to give power to the marginalised. This power shift began with the study and recognition of trans and non-binary identities but those same identities persist into being segregated into the Other, even with the rise of the trans memoir. The time is now to bring those identities into the realms of shared experience through fiction.

Nothing like the Sun only presents a very small selection of possible genders masculine male and feminine female; masculine female and feminine male; a trans identity; and a gender-ambiguous narrator designed to demonstrate how so-called gender markers are not exclusive to one side of the gender binary. As such, further study clearly exists in the possibility to present truly gender fluid characters that identify as both male and female, intersex characters, trans characters and various possibilities of non-binary or genderless characters. The task here is thus 'not to celebrate each and every new possibility qua possibility, but to redescribe those possibilities that *already* exist within cultural domains designated as culturally unintelligible and impossible' (Butler, 1990, p. 149). The task is to make room for the people who already exist and present their experiences as both understandable and possible. Further study is always going to be possible but what Nothing like the Sun has done is progress the inclusion of gender fluidity in science fiction. Now we must ask again, who is missing from the discourse? Further study clearly lies in writing female characters that are not sexualised, trans characters who are both the central characters of the narrative and accepted completely in their gender identity and more

non-heterosexual characters. Disabled main characters are also missing from the discourse, not just in gender fluid science fiction but also in much of culture entirely and this lack of representation provides an important starting point to study the representation of disabled characters and work toward a more positive representation.

Nothing like the Sun has only revealed the tip of the iceberg with the bisexuality of the Narrator and the sexuality of the twins and the intersection of sexuality and gender is a valuable addition to the study of gender fluid science fiction. Minor characters included the gay male couple Sol and Francesco Santiago, lesbian couple Tuesday and Amber Harris and Atlas MacIntyre and his husband, and very minor references to an intersex character and a transmale character selected for termination. I have only presented a very small selection of different gender identities and sexualities but my hope is that Nothing like the Sun will allow a progression of gender fluid science fiction that continues to combat antitrans stigma, provide positive representation of gender variance and sexualities and maybe act as a stepping stone for future gender fluid science fiction that seeks to expand the gender binary. To quote Shakespeare's Sonnet 130, from which the title of the creative thesis is drawn, 'and yet, by heaven, I think my love as rare/As any she belied with false compare.' The gender variant characters of Nothing like the Sun may transgress perfect gender performances, but this is not a negative and they are equally as rare and worthy of love, respect, representation and power. They serve to break the limits of acceptable gender variance set by Le Guin, Leckie and Scalzi, combating the policing of gender performances and take the reader on a thought experiment of acceptable deviation.

4.2 Further Reading

For further academic study of gender and sexuality, considering the following resources:

- The *Gay and Lesbian Quarterly* Journal: established in 1993, this imprint of Duke University Press aimed from the beginning to understand sex 'not simply as a physical or psychological event but as a mode of transacting cultural business' (Dinshaw and Halperin, 1993, p. iii-iv).
- The *Transgender Studies Quarterly* Journal: also from Duke University Press, the Transgender Studies Quarterly was established in May 2014 and aims to be a 'record for the rapidly consolidating interdisciplinary field of transgender studies' (Stryker and Currah, 2014, pp. 1-18).
- Old Futures: Speculative Fiction and Queer Possibility by Alexis Lothian (2016): Lothian explores speculative texts but specifically addresses the underutilised areas of fandom and fanfiction as an analytical tool to subvert the exclusionary practices of mainstream media, to make popular culture less white-centric, cisgender and heteronormative.

For more science fiction that intersects with gender and sexuality by a more diverse assortment of writers, consider the following resources:

- Edith Forbes' *Exit to Reality* (1997), in which characters may change bodily appearance at will.
- Bending the Landscape: Original Gay and Lesbian Writing: Science Fiction (Griffiths and Pagent, 1999), a science fiction anthology with a focus on sexuality and gender.

- Brit Mandelo's *Beyond Binary: Genderqueer and Sexually Fluid Science Fiction,* a 2012 anthology of mostly female-identifying authors exploring gender, sexuality and identity.
- Szpara's *Transcendent: The Year's Best Transgender Science Fiction* (2016), an anthology with a focus on transgender characters in science fiction.
- Ren Warom's *Escapology* (2016); the two main characters of *Escapology* are a woman and a FTM (female-to-male) transman, respectively.
- Meanwhile, Elsewhere: Science Fiction and Fantasy from Transgender Writers (ed. Fitzpatirick and Plett, 2017), with 25 stories written by trans writers
- Kameron Hurley's *The Stars are Legion* (2017), a narrative with an all-female cast of characters.
- Rivers Solomon's *An Unkindness of Ghosts* (2017), nominated for both a Stonewall Book Award for Literature and a Lambda Award for LGBTQ literature. The main character is black, genderfluid and neurodivergent.
- The *Vulture Bones* Journal: established in May of 2018, *Vulture Bones* is 'a quarterly speculative fiction magazine featuring the work of transgender and non-binary contributors' (Sanders, 2018, n.p.).
- The three special editions of *Lightspeed* magazine; issue 49 'Women Destroy Science Fiction! Special Issue' (Yant, 2014), issue 61 'Queers Destroy Science Fiction! Special Issue' (McGuire, 2015) and issue 73 'People of Colour Destroy Science Fiction! Special Issue' (Hopkinson, Muslim, 2016). These three special issue have an author focus on women, queers and people of colour, respectively, in their exploration of science fiction.

 Lastly, the James Tiptree Jr Award was established in 1991 in reference to the male pseudonym of American science fiction writer Alice Bradley Sheldon and celebrates science fiction which works to expand conceptions of genders. Consider the list of winners and nominees for further fiction in this field.

Reference List

Aizura, A., (2017): 'Communizing Care in *Left Hand Of Darkness' Ada: A Journal of Gender, New Media, and Technology, No. 12.* Text. https://doi.org/10.13016/M2RB6W385

Amato, V., (2016) Intersex Narratives: Shifts in the Representation of Intersex Lives in North American Literature and Popular Culture, Transcript-Verlag, Germany

Arrigoni, G., (ed. 2016) 'Epistemologies of Prototyping: Knowing in Artistic Research' *Digital Creativity*, 27(2), pp. 99–112.

Attebery, B. (2002) *Decoding Gender in Science Fiction*, Routledge, London, United Kingdom

Bacon, E., (2017) 'Creative Research: Mixing Methods in Practice-Led Research to Explore a Model of Stories-within-a-Story to Build a Novel' *New Writing*, Volume 14, Issue 2, pp. 235–256

Barrett, E. (2007) 'Experiential Learning in Practice as Research: Context, Method, and Knowledge.' *Journal of Visual Art Practice*, 6(2), pp. 115–124.

Barthes, R. (1975) 'An Introduction to the Structural Analysis of Narrative' *New Literary History: A Journal of Theory and Interpretation*, 6(2), pp. 237–272, trans. L. Duisit

Batty, C. & Kerrigan, S., (2018) *Screen Production Research*, Cham: Springer International Publishing.

Bender-Baird, K. (2016) 'Peeing under Surveillance: Bathrooms, Gender Policing, and Hate Violence.' *Gender, Place and Culture*, 23(7), pp. 983–988

Berger, A.A., (2010) *The Objects of Affection: Semiotics and Consumer Culture*, Palgrave Macmillan.

Bhabha, H.K. (2004) *The Location of Culture* 2nd ed., Routledge, London, United Kingdom

Blumenfeld, W.J. & Breen, M.S., (2005) *Butler Matters: Judith Butler's Impact on Feminist and Queer Studies*, Florence: Taylor & Francis Group.

Bortolussi, M., Dixon, P. and Sopčák, P. (2010) 'Gender and Reading', *Poetics*, 38(3), pp. 299-318

Bradley, A., (2008) *Derrida's Of Grammatology*, Bloomington, IN: Indiana University Press.

Browne, K. (2004) 'Genderism and the Bathroom Problem: (Re)Materialising Sexed Sites, (Re)Creating Sexed Bodies.' *Gender, Place & Culture*, 11(3), pp. 331–346

Bryant, L. (2015) *Critical and Creative Research Methodologies in Social Work*, Ashgate Publishing Limited, Routledge United Kingdom

Burke, S. (1995) Authorship: From Plato to the Postmodern, Edinburgh University Press, Scotland, United Kingdom

Butler, J., (1988) 'Performative Acts and Gender Constitution An Essay in Phenomenology and Feminist Theory' *Theatre Journal*, 40(4), pp. 519–531

Butler, J. (1990) Gender Trouble: Feminism and the Subversion of Identity, Routledge, London, United Kingdom

Butler, J., et al., (1994) 'Gender as Performance: An Interview with Judith Butler' *Radical Philosophy*, (67), pp. 32–39.

Butler, J., (2004) Undoing Gender, Florence: Taylor and Francis.

Butler, J., (1993) *Bodies That Matter: On the Discursive Limits of "Sex"* New York: Routledge.

Butler, J., (1993) 'Bodies That Matter: On the Discursive Limits of "Sex"', pp.145-152, in *Understanding Inequality: The Intersection of Race/Ethnicity, Class, and Gender*, (2007) Blue Ridge Summit: Rowman & Littlefield Publishers.

Butler, S. et al., (2014) 'Leaving it on the Pitch: Hope Solo's Negotiation of Conflicting Gender Roles on Dancing with the Stars' *Journal of Gender Studies*, 23(4), pp. 362–375.

Calvin, R., (2016) Feminist Science Fiction and Feminist Epistemology: Four Modes. Palgrave Macmillan U.S.

Capuzza, J.C. & Spencer, L.G., (2017) 'Regressing, Progressing, or Transgressing on the Small Screen? Transgender Characters on U.S. Scripted Television Series' *Communication Quarterly*, 65(2), pp. 214–230.

cárdenas, m. [stylised] (2017) 'Imagining a Trans World' *Ada: A Journal of Gender, New Media, and Technology*, No. 12. Text. https://doi.org/10.13016/M2MK6594D

Compagno, D., (2018) 'Quantitative Semiotic Analysis, Lecture Notes in Morphogenesis' Springer Books

Chadwick, R., (2017) 'Thinking Intersectionally with/through Narrative Methodologies' *Agenda*, 31(1), pp. 5–16

Chu, S. (2010) *Do Metaphors Dream of Literal Sleep? A Science-Fictional Theory of Representation*, Harvard University Press, Massachusetts, U.S.A.

Cixous, H., (1976) 'The Laugh of the Medusa' (trans. K. Cohen, P. Cohen), Signs, 1(4), pp. 875-893

Clode, D., Argent, S., (2016) 'Choose Your Own Gender: An Interdisciplinary Approach to Studying Reader Assumptions in Second-Person Adventure Stories', *Poetics*, 55, pp. 36–45.

Cooper, B., (2002) 'Boys Don't Cry and Female Masculinity: Reclaiming a Life & Dismantling the Politics of Normative Heterosexuality' *Critical Studies in Media Communication*, 19(1), pp. 44–63

Cornell, D. (1996) 'Enabling Paradoxes: Gender Difference and Systems Theory (Problems of Otherness: Historical and Contemporary)', *New Literary History*, 27(2), pp. 185-197

Cranny-Francis, A. (1992) Engendered Fiction: Analysing Gender in the Production and Reception of Texts, University of New South Wales Press, N.S.W., Australia

Dag, O. (2018) 'Why I Write, (1946)' Available at: http://www.orwell.ru/library/essays/wiw/english/e_wiw. [Accessed 28 February 2018]

Dawson, P. (2018) 'Narrativizing Novel Studies, Historicizing Narrative Theory' *Poetics Today* 39(1) pp. 1–16

Derrida, J., (1976) *Of Grammatology*, trans. G, Chakravorty Spivak, 1st American Ed., Baltimore: Johns Hopkins University Press.

De Gregorio-Godeo, E., et al. (2013) *Culture and Power: Identity and Identification*, Cambridge Scholars Publishing

Delany, S., (1984), Stars in My Pocket Like Grains of Sand, Bantam Books, New York, USA

De Villiers, N., (2012) *Opacity and the Closet Queer Tactics in Foucault, Barthes, and Warhol*, Minneapolis: University of Minnesota Press.

Dinshaw, C. and Halperin, D.M. (1993); 'From the Editors' GLQ 1 (1): iii-iv.

Doan, P.L. (2010) 'The Tyranny of Gendered Spaces – Reflections From Beyond the Gender Dichotomy' *Gender Place and Culture*, 17, pp. 635–654

Donawerth, J. (1996) *Frankenstein's Daughters: Women Writing Science Fiction*, Syracuse University Press, New York City, U.S.A.

Dorman, S., (1966) 'When I Was Miss Dow', *Galaxy Science Fiction* 24(05), pp. 153-164

Fitzpatrick, C., Plett, C., et al. (Ed.) (2017) *Meanwhile, Elsewhere: Science Fiction and Fantasy from Transgender Writers*, Topside Press, New York, U.S.A.

Fludernik, M. (2010) 'Narratology in the Twenty-First Century: The Cognitive Approach to Narrative' *PMLA*. *Publications of the Modern Language Association of* America, 125(4), pp. 924–930.

Forbes, E., (1997) Exit to Reality, Seal Press, California, U.S.A.

Foss, S.K., Domenico, M.E., and Foss, K.A. (2012) *Gender Stories: Negotiating Identity in a Binary World*, Waveland Press Inc., Illinois, U.S.A.

Freedman, C.H. (2000) *Critical Theory and Science Fiction*, Wesleyan University Press, Connecticut, U.S.A.

Garber, E., and Paleo, L. (1990) Uranian Worlds: A Guide to Alternative Sexuality in Science Fiction, Fantasy, and Horror, Thorndike Press, Maine, U.S.A.

Goren, L., (2016) 'Politics and Popular Culture', Society, 53(5), pp. 482-486

Griffths, N., Pagent, S., (1999) *Bending the Landscape: Original Gay and Lesbian Writing: Science Fiction*, Overlook, New York, U.S.A.

Gymnich, M., (2013) 'Gender and Narratology' *Literature Compass*, 10(9), pp. 705–715.

Halberstam, J. (1988) *Female Masculinity*, Duke University Press, North Carolina, U.S.A.

Hammack, P.L., Thompson, E.M., & Pilecki, A., (2009) 'Configurations of Identity among Sexual Minority Youth: Context, Desire, and Narrative' *Journal of Youth and Adolescence*, 38(7), pp. 867–883

Hammack, P.L., Mayers, L. & Windell, E.P., (2013) 'Narrative, Psychology and the Politics of Sexual Identity in the United States: From "Sickness" to "Species" to "Subject" *Psychology & Sexuality*, 4(3), pp. 219–243.

Haraway, D. (1991) 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminist in the Late Twentieth Century,' *Simians, Cyborgs and Women: the Reinvention of Nature*, Routledge, New York, U.S.A.

Hayes, J., Higonnet, M.R. & Spurlin, W.J., (2010) Comparatively Queer Interrogating Identities Across Time and Cultures, Palgrave Macmillan, U.S.A

Herzog, B., (2016) *Discourse Analysis as Social Critique Discursive and Non Discursive Realities in Critical Social Research*, Palgrave MacMillan, U.K.

Hellstrand, I., (2016) 'Almost the Same, but Not Quite: Ontological Politics of Recognition in Modern Science Fiction' *Feminist Theory*, 17(3), pp. 251–267

Hollinger, V., (1999) '(Re)reading Queerly: Science Fiction, Feminism, and the Defamiliarization of Gender' *Science Fiction Studies*, 26(1), p. 23.

Hopkinson, N., Muslim, K.O., et al. (Ed.) (2016) 'People of Colour Destroy Science Fiction! Special Issue', *Lightspeed Magazine*, 73

Hubble, N., (2015) 'From Manland to Womanland: Gender in Science Fiction and Fantasy' *Foundation*, 44(122), pp. 83–85

Hurley, K., (2017), The Stars are Legion, Saga Press, New York, U.S.A.

Jacques, J. (2017) 'Forms of Resistance: Uses of Memoir, Theory, and Fiction in Trans Life Writing', *Life Writing*, 14(3), pp. 357-370

Jänicke et al., (2017) 'Visual Text Analysis in Digital Humanities' *Computer Graphics Forum*, 36(6), pp. 226–250

Joel, D., (2016) 'VIII. Captured in Terminology: Sex, Sex Categories, and Sex Differences' *Feminism & Psychology*, 26(3), pp. 335–345

Johnson, B. et al., (2014) *The Barbara Johnson Reader: The Surprise of Otherness*, Durham: Duke University Press.

Kark, R., Waismel-Manor, R., & Shamir, B., (2012) 'Does Valuing Androgyny and Femininity Lead to a Female Advantage? The Relationship Between Gender-Role, Transformational Leadership and Identification.' *The Leadership Quarterly*, 23(3), pp. 620–640

Kidd, D.C., & Castano, E., (2013) 'Reading Literary Fiction Improves Theory of Mind' *Science*, Volume 342, Issue 6156, pp. 377–380.

Klarer, M. (1992) 'Gender and the "Simultaneity Principle": Ursula Le Guin's The Dispossessed' *Mosaic*, 25(2), pp. 107-121

Knaak, S., (2004) 'On the Reconceptualizing of Gender: Implications for Research Design' *Sociological Inquiry*, 74(3), pp.302–317.

Kress, G. & Bezemer, J., (2008) 'Writing in Multimodal Texts: A Social Semiotic Account of Designs for Learning' *Written Communication*, 25(2), pp. 166–195.

Kress, G. & Selander, S., (2012) 'Multimodal Design, Learning and Cultures of Recognition' *Internet and Higher Education*, 15(4), pp. 265–268.

Kress, G., (2015) 'Semiotic Work: Applied Linguistics and a Social Semiotic Account of Multimodality' *AILA Review*, 28, pp. 49–71.

Larbalestier, J. (2002) The Battle of the Sexes in Science Fiction: From the Pulps to the James Tiptree Jr. Memorial Award, Wesleyan University Press, Connecticut, U.S.A.

Lavigne, C., (2013) *Cyberpunk Women, Feminism and Science Fiction*, McFarland and Co. Inc., North Carolina, U.S.A.

Leckie, A. (2013) Ancillary Justice, Orbit Books, London, United Kingdom

Le Guin, U. K. (1989) 'Is Gender Necessary? (1976) Redux (1988)' in 'The Language of the Night: Essays on Fantasy and Science Fiction' Ed. S. Wood and U.K. Le Guin. Rev. ed. New York, HarperCollins, pp. 155-172

Le Guin, U. (1995). 'Coming of Age in Karhide'. In: G. Bear and M. Greenberg, ed., *New Legends*, Legend Books, London, United Kingdom

Le Guin, U. K., (2004) *The Wave in the Mind: Talks and Essays on the Writer, the Reader, and the Imagination*, Shambhala Publications, Boston Massachusetts, U.S.A.

Le Guin, U. K. (ed. 2010) *The Left Hand of Darkness*, Penguin Group, Victoria, Australia, (originally published by Ace Books, New York City, U.S.A., 1969)

Linstead, S. & Pullen, A. (2006) 'Gender as Multiplicity: Desire, Displacement, Difference and Dispersion', *Human Relations*, 59(9), pp. 1287-1310

Lothian, A., (2006) 'Grinding Axess and Balancing Oppositions: The Transformation of Feminism in Ursula K. Le Guin's Science Fiction' Extrapolation (pre-2012), 47(3), pp.380–395,348.

Lothian, A., (2016) *Old Futures: Speculative Fiction and Queer Possibility*, New York University Press, New York, U.S.A.

Lucal, B. (2008) 'Building Boxes and Policing Boundaries: (De)Constructing Intersexuality, Transgender and Bisexuality' *Sociology Compass*, 2, pp. 519–536

Macfarlane, A. D., (2014), *Post-Binary Gender in SF: Ancillary Justice by Ann Leckie* [ONLINE] Available at: https://www.tor.com/2014/02/18/post-binary-gender-in-sf-ancillary-justice-by-ann-leckie/. [Accessed 16 August 2018].

March-Russell, P., (2018). 'Editorial' Foundation, 47(129), pp. 3-5

Martin, C.L., Cook, R.E. & Andrews, N.C.Z., (2017) 'Reviving Androgyny: A Modern Day Perspective on Flexibility of Gender Identity and Behavior' *Sex Roles: A Journal of Research*, 76(9-10), p. 592.

Marcus, L. & Mukherjee, A., (2014) *A Concise Companion to Psychoanalysis, Literature, and Culture, John Wiley & Sons*

Mandelo, B., (2012) *Beyond Binary: Genderqueer and Sexually Fluid Speculative Fiction*, Lethe Press, New Jersey, U.S.A.

McGuire, S., et al. (Ed.), (2015) 'Queers Destroy Science Fiction! Special Issue' *Lightspeed Magazine*, 61

McInroy, L.B. & Craig, S.L., (2017) 'Perspectives of LGBTQ Emerging Adults on the Depiction and Impact of LGBTQ Media Representation' *Journal of Youth Studies*, 20(1), pp. 32–46.

McQueen, P., (2015) 'Honneth, Butler and the Ambivalent Effects of Recognition' *Res Publica*, 21(1), pp. 43–60.

McQueen, P. (2016) 'Post-Identity Politics and the Social Weightlessness of Radical Gender Theory,' *Thesis Eleven*, 134(1), pp. 73–88

Mehta, C.M. & Dementieva, Y., (2017) 'The Contextual Specificity of Gender: Femininity and Masculinity in College Students' Same- and Other-Gender Peer Contexts' *Sex Roles: A Journal of Research*, 76(9-10), p. 604.

Merrick, H. (2009) *The Secret Feminist Cabal: A Cultural History of Science Fiction Feminisms*, Aqueduct Press, Washington, U.S.A.

Merrick, H. (2010) 'Science Stories, Life Stories: Engaging the Sciences Through Feminist Science Fiction' *Women's Studies International Forum*, 33(2), pp. 141-148

Mickan, P. & Lopez, E., (2017) *Text-Based Research and Teaching A Social Semiotic Perspective on Language in Use*, Palgrave Macmillan UK, London, United Kingdom

Miller, S.J. (2016), *Teaching, Affirming, and Recognizing Trans and Gender Creative Youth*, Palgrave Macmillan UK, London, United Kingdom

Mingers, J. & Willcocks, L. (2017) 'An Integrative Semiotic Methodology for IS Research' *Information and Organization*, 27(1), pp. 17–36.

Mocarski, R. et al., (2013) 'A Different Kind of Man' *Journal of Communication Inquiry*, 37(3), pp. 249–264

Moslehi, M. & Abbasi, P., (2016) 'Joanna Russ's The Female Man: A Butlerian Approach' *3L, Language, Linguistics, Literature*, 22(1), p. 165.

Nayak, A. & Kehily, M.J., (2006) 'Gender Undone: Subversion, Regulation and Embodiment in the Work of Judith Butler' *British Journal of Sociology of Education*, 27(4), pp. 459–472.

Nelson, L., (1999) 'Bodies (and Spaces) do Matter: The Limits of Performativity' *Gender, Place & Culture*, 6(4), pp. 331–353.

Nicolas, G., and Skinner, A.L. (2012) "'That's So Gay!" Priming the General Negative Usage of the Word Gay Increases Implicit Anti-Gay Bias' *The Journal of Social Psychology*, 152(5), pp. 654–658.

Notkin, D., (2019), *Award « James Tiptree, Jr. Literary Award*. [online] James Tiptree, Jr. Literary Award. Available at: https://tiptree.org/award#previous-awards. [Accessed 1 Apr. 2019].

Odag, O. (2013) 'Emotional Engagement During Literary Reception: Do Men and Women Differ?' *Cognition & Emotion*, 27(5), pp. 856–874

Ortega, A., (2016) 'Lock In' Foundation, 45(123), pp. 130–133

O'Shea, S.C., (2018) "'I, Robot?" Or, How Transgender Subjects are Dehumanised' *Culture and Organization*, pp. 1–13.

Paechter, C., (2006) 'Masculine Femininities/Feminine Masculinities: Power, Identities and Gender. *Gender and Education*, 18(3), pp. 253–263.

Paik, P. Y., (2010) From Utopia to Apocalypse Science Fiction and the Politics of Catastrophe, University of Minnesota Press, Minnesota, U.S.A.

Pavel, T., (2017) 'The Source of Meaning of Literary Works: From the Perspective of 20th Century Western Literary History' *Social Sciences in China*, 38(4), pp. 145–153.

Pennington, J. (2000) 'Exorcising Gender: Resisting Readers in Ursula K. Le Guin's Left Hand of Darkness' *Extrapolation*, 41(4), p. 351

Pluretti, R., et al (2015) 'Toward an "Other" Dimension: An Essay on Transcendence of Gender and Sexuality.' *ETC.: A Review of General Semantics*, 72(4)

Propp, V.I. & Liberman, A. (1984) *Theory and History of Folklore*, trans. A. Martin, R. Martin, et al, Minneapolis, University of Minnesota Press.

Riach, K., Rumens, N. & Tyler, M., (2016) 'Towards a Butlerian Methodology: Undoing Organizational Performativity Through Anti-Narrative Research' *Human Relations*, 69(11), pp. 2069–2089

Ricoeur, P., (1974) 'Metaphor and the Main Problem of Hermeneutics' *New Literary History*, 6(1), p. 95.

Rider, G.N. et al., (2018) 'Health and Care Utilization of Transgender and Gender Nonconforming Youth: A Population-Based Study' *Pediatrics*, 141(3), pp. 1-10

Russ, J., (1975) The Female Man, London Women's Press, London, United Kingdom

Sanders, B., (May 2018), 'Letter from the Editor, Issue 1' Vulture Bones. [online] Vulture Bones. Available at: https://www.vulturebonesmag.com/editorletterissue01 [Accessed 27 Mar. 2019].

Scalzi, J. (2014) Lock In, Tor Books, New York City, U.S.A.

Schep, D., (2012) 'The Limits of Performativity: A Critique of Hegemony in Gender Theory' *Hypatia*, 27(4), pp. 864–880.

Schmeink, L., (2016) *Biopunk Dystopias: Genetic Engineering, Society and Science Fiction, Liverpool Science Fiction Texts and Studies*

Scott, M., (1995) Shadow Man, Tor Books, New York, USA

Shafer, A.P., (2017) 'Queering Bodies: Aliens, Cyborgs, and Spacemen in Mexican and Argentine Science Fiction', *UC Riverside Electronic Theses and Dissertations*

Siebler, K. (2016) *Learning Queer Identity in the Digital Age*. Palgrave Macmillan, London, United Kingdom

Smillie, T., (2017), 'Radical Imagination And The Left Hand of Darkness' *Ada: A Journal of Gender, New Media, and Technology*, No. 12. Text. https://doi.org/10.13016/M2W37KX2H

Solomon, R., (2017) An Unkindness of Ghosts, Akashic Books, New York, USA

Solomonik, A., (2015) A Theory of General Semiotics: The Science of Signs, Sign-Systems, and Semiotic Reality, Cambridge Scholars Publishing

Stark, H., (2014) 'Judith Butler's Post-Hegelian Ethics and the Problem with Recognition *Feminist Theory*, 15(1), pp. 89–100.

Steelman, S.M., (2016) 'Externalizing Identities: An Integration of Narrative Therapy and Queer Theory' *Journal of Family Psychotherapy*, 27(1), pp. 79–84

Stoller, S., (2010) 'Expressivity and Performativity: Merleau-Ponty and Butler' *Continental Philosophy Review*, 43(1), pp. 97–110.

Stryker, S. and Currah, P. (2014). Introduction. *TSQ: Transgender Studies Quarterly*, 1(1-2), pp.1-18

Szpara, K.M., (Ed.), (2016) *Transcendent: The Year's Best Transgender Science Fiction*, Lethe Press, New Jersey, U.S.A.

Tamise, V.P. (2000) 'Otherness', Postmodern Culture, 10(2), (19 pages)

Tebbe, E.A. and Moradi, B., (2016) 'Suicide Risk in Trans Populations: An Application of Minority Stress Theory.' *Journal of Counseling Psychology*, 63(5), pp. 520–533

Todorov, T. (2014) 'The Categories of Literary Narrative' *Papers on Language and Literature: A Journal for Scholars and Critics of Language and Literature,* 50(3-4), pp. 381–424, trans. J. Kestner

Trier-Bieniek, A. (2015) Feminist Theory and Pop Culture, SensePublishers, Rotterdam, Netherlands

Varley, J., (1992) Steel Beach, Berkley Books, New York, USA

Warom, R., (2016) Escapology, Titan Books, London, United Kingdom

The World Health Organisation (WHO) (2018) 'Gender' Fact Sheet No.403, viewed April 1st 2018, http://www.who.int/mediacentre/factsheets/fs403/en/

Wilchins, R.A. (2004) *Queer Theory, Gender Theory: An Instant Primer*, Alyson Books, New York City, U.S.A.

Wilcox, L. (2017) 'Practicing Gender, Queering Theory,' *Review of International Studies*, 43(5), pp. 789–808

Williams, C. (2014) "Gender Performance: The TransAdvocate Interviews Judith Butler." *TransAdvocate* http://www.transadvocate-com/gender-performance-the-transadvocate-interviews-judith-butler_n_13652.htm>. Accessed 7th May 2018.

Wolmark, J., (1994), *Aliens and Others: Science Fiction, Feminism, and Postmodernism*, University of Iowa Press, Iowa, U.S.A.

Xhonneux, L., (2013) 'Performing Butler? Rebecca Brown's Literary Supplements to Judith Butler's Theory of Gender Performativity' *Critique: Studies in Contemporary Fiction*, 54(3), pp. 292–307

Yant, C., et al. (Ed.) (2014) 'Women Destroy Science Fiction! Special Issue', *Lightspeed Magazine*, 49

Yaszek, L., (1997) 'Of Fossils and Androids: (Re)Producing Sexual Identity in "Jurassic Park" and "Blade Runner"' *The Journal of the Midwest Modern Language Association*, 30(1/2), pp.52–62.

Yaszek, L., (2003) 'Unhappy Housewife Heroines, Galactic Suburbia, and Nuclear War: A New History of Midcentury Women's Science Fiction' *Extrapolation* (pre-2012), 44(1), pp.97–111,4.

Yaszek, L., Sharp, P.B., (2016) *Sisters of Tomorrow: The First Women of Science Fiction*, Wesleyan University Press, Connecticut, U.S.A.

Part II:

NOTHING LIKE THE SUN

A creative response to:

'The Limits of an Acceptable Deviation: A study of non-binary gender performances in gender-fluid science fiction'

Caitlin Roper, BA (Hons)

Chapter One

Caduceus Street is a long, thin street. No space is wasted. Sleek black asphalt seamlessly meets pale grey concrete, and melts into an almost white sky, filterless against the Sun's harsh light. Splashes of colour litter the world - cigarette advertisements, recycling bins, billboards. Buildings board the road closely on either side, each one a peculiar mish-mash: repurposed old technology meets modern engineering and architecture. My mother's shop, Jacano Genomes, is one floor of an elevator building, a building that slowly cycles in a vertical rectangle. It is like a Ferris wheel, each level is presented to the street, then swept backwards, up, over the top, and down again – flashy and ultimately frivolous. It is a glittering pinstripe of solar panels, windows and old plasma screens. Usually, those screens would be advertising my mother's latest sub-dermal chip; SSRI's, impulse balancers, sensory enhancers - more useless dehumanizing trash, but it pays the water bills for my parent's residence attached at the back. Now, though, it is a history lesson of sorts, showing the fall of nanotechnology and science in general – from nanotechnological virus warfare to chemical reconfiguration to Generation Disconnection, riots and protests and the eventual government ordained and enforced euthanasia.

The building is an unusual one. It is one of the few places in this part of the city that you can find any sort of vegetation – my mother's indulgence. Green and purple succulents known as Pig's Face spill down from window boxes while variegated roses snake up. Like my mother, they are small, hardy and lovely.

I stand outside in the beating afternoon sun and light a cigarette as I wait, feeling my hunger abate, watching as this display of fleeting frippery and pleasure in possession descends. Sweat trickles down my spine. A nanochip on the pulse point of my throat regulates my body temperature – a standard for everyone, these days, but it

and my brain chip are the only implants I have. So far, all my bones and organs are my own, even my lungs. If I am alive, then I can thank my genetics.

I take a last draw and step onto the sensor pad as my level nears, crushing my cigarette under my boot heel as my level gently stops. The glass double doors sweep open and clean, cool air engulfs me. My temp-reg chip immediately deactivates, allowing my body to acclimatise naturally; away from the harsh sunlight, I remove my tinted goggles.

The receptionist is a small, pert Generation One girl with milky skin and a smattering of perfect freckles across the bridge of her nose and along her cheekbones. Their perfect spacing and colour give them away as fake immediately. That, and nobody has genuine freckles anymore. For someone called a receptionist, her welcome is mixed. Carefully veiled disgust at my position as an EEO wars with her pity for the recent news of my father, yet it's all hidden under a smooth, smug air of superiority. I smile as I pass her.

Euthanasia rates are up this week; there's just not enough pollution to convert to food to go around anymore. It all started with the mass-euthanasia of the elderly. They blamed it on the Generation Disconnection, the inability of the hard-working middle-class of the last century to keep up with an instantaneous future. They were putting down old dogs that couldn't learn new tricks, but no matter how many we kill, we can't produce enough pollution to feed the world's population anymore. Birth rates boomed with the introduction of controlled population growth twenty-two years ago, when Generation One was born. Applications will open in two years for the prospective parents of Generation Two and the city will again be awash with the cries of children. The euthanasia started with just the elderly, then the small-business shopowners, forced into bankruptcy by technology that could instantly reproduce food in the home – MadeByMom lemon meringues from a spray-can, Eazy-Chef instant slow-cooked Sunday roasts, and the revolutionary DingDinner-Maker, where the chemical codes for thousands of dishes were programmed into a device that sucked the pollution from the air and reconfigured it into whatever you wanted. Naturally, produce-growers and farmers were the next to suffer, and this is where my parents came in – my mother is a nanotechnologist and my father was a farmer. Two weeks ago, a Euthanasia Encouragement Officer just like me delivered the news to my father of his impending death; he has fifty more weeks to live. His death will be one in many designed to conserve raw pollution materials for the greater population. Greater or younger, the government has never clearly defined just which it means.

My parents had me in their late sixties, just past middle age; genetic engineering has managed to slow the process, and people age at just 46% of the rate they used to. My parents, though, are some of the last of their kind, born before the days of in-womb-genetic-altering and pollution/consumable conversion units. However, this hasn't stopped them from keeping up with the future. By his 109th birthday, my father had two knees and a shoulder first reconstructed and then replaced. My aunt – his sister – had double that by her 104th – before her euthanasia fifteen years ago – so what to expect in my own body over the next hundred years is clear. The future becomes clearer with every day.

The past, though, is just a series of snapshots.

I had only ever met my grandfather twice, but his face lingers in the synapticflashes of my mind, a thin and craggy after-image. My own father, though, I could only tell you of broad details, like his scar-peppered body, or his salt-and-pepper moustache – more salt than pepper, these days – and of his hair slowly following suit. However, I couldn't tell you what shape his face is, or how big his nose or what colour his eyes. Having seen it a million times over a lifetime, it is difficult to call to mind one specific age, expression or shape. I could describe how he looks in certain photographs, but his right-here, right-now face is a mystery, as ever-changing as it is. The present is impossible to grasp.

My grandfather, though, he is clear. A tall man, almost skeletally thin; he was slow and deliberate in his movements, with painful, swollen knees, thoughtful, far-off eyes and a thin mouth; all features I could recognise in own father and even myself. His clothes were neat and sombre, with the look of a frugal, careful man, a look that translated into his impeccably manicured gardens; roses, hyacinths, azaleas and a tumbledown stone wall. It was like something out of a fairytale, or another age. He was the last of his kind, old before anti-aging-GM could make a difference. He died an old, old man, at just 94, after his garden was destroyed for housing.

I couldn't tell you what my father looks like right now, but I could tell you what he used to look like, in photographs and memory snapshots, and – from my grandfather's face – how he will look in the future, many years from now. However, my father's own future won't be realised if the government has its way, exterminating him in the name of raw pollution and consumerist ideologies.

My grandfather's garden and my father's farm are no more now, replaced by buildings shelled entirely in repurposed CRT screens; they let in the light, recycle some of the old modern age's detritus and are solid and sturdy. This neat summation describes my father well – resourceful, solid and sturdy but the government wants to put him down like an outdated farm animal. My aunt, and millions like her, accepted their euthanasia calmly, as an end to the despair and confusion of the world of tomorrow. Others took matters into their own hands – with their bodies failing, they did the government's work for them; some did it quietly, hanging themselves from their old deserted barns, back when barns were barns and not housing. Others did it in more grandiose ways. Others still found ways to disappear into second-world countries, or alter the records to give themselves another fifteen, or even twenty fleeting years to cling to the planet.

For my father, though, none of these is an option. If he is to live, he is to do it with pride and honesty, using the values of the age he was raised in and the values with which he raised me. I am his present and his future at just 46 years old. I am young enough to keep up with the future and old enough to recount the past. The world is running out of pollution to feed a growing population, and the government is paying people like me to track down undesirables and convince them now is the time to die. I am a Euthanasia Encouragement Officer, but I won't do it anymore.

My parents sit in my mother's oversized office, my father with a coolant pumping through his left cobalt-chromium-molybdenum knee, to bring down the swelling. My mother fixes the tea.

'Hello sweetness,' she says, shooting me a smile and dumping tealeaves into the kettle's compartment. 'I didn't have time to synthesise any real tea, so we'll have to use the converted stuff;' She adjusts the temperature, hits the on button and fetches the calcium substitute out of the fridge all in one smooth movement. 'Encouraged anyone to die lately?'

'No, mother,' I answer, rolling my eyes. 'I'm done for the day.' With the selection of my father, my workload has been lessened to allow me more time with him. I hug my mother, one-armed, around the shoulders; she is such a tiny little thing. As I let her go, she presses two small devices into the palm of my hand. I pocket them until later. Throwing myself into the curved chaise lounge, I plant my heels on the floating glass table. Grey dust plumes off my boots, settling slowly on the glass – it is

cement, cigarette ash, dust and the cremated remains of my last client. My mother raises her eyebrows and looks pointedly at my boots, but says nothing.

'Dad,' I say. 'How's the knee?' I pop another cigarette between my lips and scrabble unsuccessfully through my pockets for a lighter. My father reaches forward helpfully, beckoning for me to lean closer. Instead, he plucks the cigarette from my lips and tears it in half as I watch in dismay. He leans back again without answering, running a hand in tight circles over his swollen joint in thought.

My mother sets the table with three cups, pouring the tea and cal-sub into each cup. We sit in silence for a moment, all of us strained by the news of my father's selection. Fifty weeks to go and not a damn thing we can do about it. Interactive screens litter the walls – some show half-complete chip designs, some show research proposals and some of them I can't even tell what they are. The silence is broken as my mother's interoffice phone chimes. She pops a small device inside her ear and takes her steaming cup to the window, vacantly watching the world spin by outside as she listens, answering the occasional question coldly and succinctly. My mother, the nanotechnologist and businesswoman, is a far more ruthless person than my mother the human. My father, Yon, detaches the coolant pump from his knee, thoughtfully winding the thin blue hose around one hand as my communication device chimes loudly. I groan – I'd only just gotten here – and check my comms: It's a name, a face and an address, my next euthanasia assignment. Today, someone else's fifty-two weeks begin, but it won't be if I can help it.

'Sorry, dad, I gotta go,' I say. 'You know how it is now we're approaching Gen Two, they want us to clear the way for the baby boom.'

My father nods and seems to see me for the first time. He gestures to the devices in my pocket. 'I'll walk with you, if you don't mind,' he says, his eyes

belying a hidden intention. Draining his cup, the clink of glass on glass as he places it back on the table catches my mother's attention. 'Nova, I'm going out. I've got my suit, I'll be back later,' he says.

As I wait, he neatly slips his good leg into the pants of his UV jumpsuit, then almost as neatly slips his bad leg in next. Pulling up the sleeves and hood, he zips it over the tank of coolant on his back. For people like me, the temp-regulating chips are implanted at birth but with my father's blood pressure the way it is, he has to resort to external measures. I try not to jig impatiently as he searches first for his goggles, then his communication piece, and then his finance-card.

'Why the fi-card?' I ask.

He shrugs. 'In case your mother wants me to pick something up.'

Finally he is ready. The freckled receptionist's jaw drops as we walk past, as if she thinks I've come to collect my own father for his euthanasia. We can hear her jabbing frantically at the call button for my mother as the office's level touches smoothly onto the pavement.

Outside, the heat is like swimming through a smoky sweatshop. Throngs of people seamlessly stream around us, deterred by my gray uniform. A woman spits at my boots.

'Back in the old days,' my father begins, 'cities like this had big green lawns.' It's a story he's told me a dozen times, but I never tire of hearing it. 'They had median strips filled with plants that changed colour in the autumn and bloomed in the spring. Trees lined the sidewalks and over time they would crack the cement, forcing out a niche. Weeds sprouted in gaps in the pavement. Office buildings had window boxes full of flowers, just like your mother's. It was green. The grass was green and the sky was blue, if you believe it. Leaves lined the sidewalks and choked the gutters and were caught up in the winds of passing vehicles.'

I look around as we walk. It's all sleek glass buildings, glittering solar panels and smooth, unmarred cement in this part of the city; there is nothing alive, nothing to show the passing of the seasons or the passage of time. The few cars on the road ghost by silently. I look at my father as we walk – starbursts bloom on his cheeks and his eyes look like a potent mix of disinfectant green and smog grey.

A billboard looms above us – an overly-politically correct advertisement for the latest model of Ding-Dinner-Makers and the impending Gen Two. An interracial same-sex couple beam proudly over the device. Their ginger kid's gap-toothed-grin almost outshines the words GEN TWO DESERVES THE BEST, AND SO DO YOU. Passing under it, we begin to move into the poorer districts, the ones closer to the noise pollution of the factories, shrouded in the heavy, unrefined smog. Here, things are not so perfect. At first, it's just the taint of factory smoke in the back of your throat and the occasional burnt-out appliance in an alleyway. It is in one such nearby alleyway that I found Hooch a few years ago, a barely alive mongrel in the belly of his dead mother. By the tracks on her skull, she'd been hit by a law enforcement truck. It was his tiny whines under his dead litter-mates that caught my attention. As we keep walking, the buildings hunch together as the population-density increases and huge cracks snake through the crumbling concrete; there are no elevator buildings here, all space is needed to house the immense populace. The majority of buildings show the signs of construction in line with the Vega Housing Strategy, in-progress additions to the top floors, adding new levels for the approaching baby boom. Broken electronics, furniture and garbage pile the alleys and street fronts; the trash steams

gently in the harsh sunlight, the smell of hot plastic and copper mingling with the cloying pollution.

The comms on my wrist chime gently, directing me toward a set of external stairs leading up the side of the building. The flash of my goggles in the sunlight gives away my actions as I try to covertly check my father's condition. It's hard to make out his pallor in his suit, all I can see is the bloom of exertion on his cheeks and the glare he directs my way for daring to check on him. He jerks his head at the stairs and I can almost distinguish the obstinate thrust of his jaw as I lead the way.

The stairs clang hollowly as we ascend, resonating with the ever-present hum of air conditioners. The dust from our boots scuffs the embossed letters of an old city's name – more recycled goods. I pause on the fourth landing, pretending to study the slice of horizon wedged between two buildings. In reality, I'm a little out of breath and slick sweat is seeping into my goggles. It's difficult to discern through the cloying smoke, but this part of the city seems to be a puzzle of cracked pavements and mismatched pieces, beautiful in its own way, but gray and jumbled. The roads are a patchwork of new and old gray asphalt. I sigh and turn to my father, who seems to be smug in the fact that he is not out of breath as he now takes the lead.

'Where are we headed?' he says.

'Level 7, apartment 12,' I reply, as we round the next landing. 'Wynne Residence.' I shake my head to dash the sweat from my eyes and stumble up the next step. Generously, my father says nothing.

At the seventh landing, a metal boardwalk peels off in either direction; apartments one to twenty are on the left, twenty-one to forty on the right. A tiny green LED blinks to life at each door, then returns to slumber as we pass. At apartment 12 we pause. My father pretends to adjust the compression bandage on his knee and I pretend to check the client info on my comms; we both know I'm out of breath. Pulling my EEO ID and one of the devices my mother gave me from my pocket I inhale sharply in preparation and jab the apartment's intercom alert.

Two chimes, the scrape of a chair on cement, footsteps; the intercom's screen activates showing a young man. The ID program in my goggles hums to life and overlays a grid on his miniaturized face, picking out key features. A split second of scanning and then an answer appears: Artemis Wynne, a baby of Gen One and the son of my new client. Damn.

'Yes?' he says. 'Can I help you?'

I hold my ID to the screen long enough for him to read it. When I lower it, his face is pale. He knows the repercussions for obstructing the work of an EEO. The shadows on his throat bob as he swallows – nerves, probably – and the door clicks as he unlocks it. It opens into the apartment and once again, my temp-regulator chip deactivates in the cool wash of air conditioning.

Artemis Wynne is of medium height with a mop of caramel-coloured hair hanging halfway down his back. The apartment smells of food; I cough to hide the grumble of my belly. I'd skipped lunch, as usual.

'Artemis Wynne, I'm here to speak to your father Vincent,' I say. 'Is he home?' As I speak, my goggles pick out tiny features of his face – the jump of pulse in his throat like a lab rat's nose and tiny scars in his sclera, a result of eye surgery. I frown. Gen One babies were almost all perfect designer kids; he should never have required eye surgery.

Artemis turns even paler, 'Here for my father? He's sleeping but I can go wake him up.' He scrubs a hand through his hair, eyes darting around. He catches sight of a battered wooden table and strides to it, sweeping piles of tablets, blueprints and tools onto one chair. 'Please, um, why don't you sit?' he says.

I try to smile encouragingly at him but he darts into a nearby room before I can complete the action. My father takes a seat heavily and begins stripping off the top-half of his suit, his gloves, mask and goggles, his eyes trailing over the heaped tablets and blueprints. His eyes catch mine and he nods slightly. Placing my goggles with his and my mother's device next to my ID on the table, I wander absent-mindedly around the room, one ear trained on the two voices in the next room, one a frantic whisper, the other a sleepy slur. According to my comms, Vincent Wynne had never fully recovered from a stroke; I didn't expect him to run. My wanderings take me first to a family photo on the wall, showing Vincent, a woman I assumed was his partner, a toddler Artemis and similarly aged girl. Two children? I frowned. Gen One was a very strict one-baby-per-successful-applicant; Vincent Wynne should not have two children.

Continuing, I reached the Wynne family's pollution-consumable conversion unit, a Ding-Dinner model 70, but something was off. The small display showing the family's available credits for today's food had obviously been tampered with. Small scratches left by a screwdriver marred one corner and the display showed eight zeroes. If the Wynne's were out of credit for the day, it would only show five; this part of the city would never be allocated eight digits. Shrugging, I turn away; I'm not the Military Police.

The pile of junk on the chair consists of several tablets in varying levels of modernity – most have their shells removed and are in the process of being repaired. Screwdrivers, hex-keys and a miniature soldering iron all tangle with a pair of high-end programmer's glasses and several sets of crumpled blueprints. Some are simple

repair manuals and some are modifications both legal and illegal. I shrug again and return my father's nod. I am in agreement.

Shuffling footsteps – Vincent Wynne has arrived. Artemis pulls a chair out for his father, deftly avoiding the annoyed hand-flap Vincent directs at him.

'I'm not a complete invalid,' Vincent grumbles; his slur is barely discernable. His eyes flick to my ID, then to me, then my father. One caterpillar of an eyebrow arches, but he says nothing. I take a deep breath.

'Mr Wynne-' I begin.

'Vincent,' he interrupts. 'I'm not that old, yet.'

'Vincent,' I correct. 'Ordinarily, I would be reciting the usual speech regarding your ongoing illness as this city has identified you as a person of interest in the Euthanasia Encouragement Program. In this regard, I have been sent to inform you that fifty-two weeks henceforth, I will be escorting you to one of the city's facilities for termination.'

Vincent frowns; Artemis is furiously tapping the screen of one of the tablets as his mouth opens to object.

'I'm not done,' I say. 'However, in this particular instance you have three choices. Now, I want you to take note that this device here is jamming my work transmitter,' I tap my mother's gadget. 'This means our conversation today is completely off the record and you will soon see why. Now, choice number one: if you are ready to die now or any time in the next fifty-two weeks, it would be my honour to escort you to the clinic and perform a termination for you. Choice num-'

'You can't -,' Artemis interrupts again.

'I'm still speaking, Artemis,' I say. I can feel I'm talking a little too quickly, the words tumbling over each other on their way out of my lips; I'm nervous, but I don't think they can tell. 'As I was saying, choice number two is freedom. I finish my job here today and you have fifty-two weeks to disappear. I will, of course, have to visit you once a week for the next year so as to not arouse suspicions. Ordinarily, I wouldn't like your chances of escape as I have to implant a tracker into your hand, but with a kid like Artemis to help, you might just be able to do it. He seems like the clever sort.' I pause to lick my lips. My tongue feels like asphalt; it doesn't really taste much better, either.

Vincent clears his throat, scrubbing his good hand over the edge of his jaw thoughtfully. 'You said there was a third choice?'

I nod. 'Yes, sir,' I turn to my father. 'This is my own father, Yon. His fiftytwo weeks began two weeks ago. Now, think of me what you will, but I've done my work as an EEO with little complaint up until that time. However, as I'm sure you can understand, I can't sit idly by when my own father is selected for termination, so I guess you can say that the third option is to fight. We figure out a way to stop this, so the only people whose lives I terminate from now on are those who are ready to die.'

There is silence. Artemis' throat is working as he struggles to find the words he wants to throw at me. I ignore him for now – I've heard it all before.

'Yon, is it?' Vincent says finally. 'Tell me, why have you been selected?'

'I got the same bullshit reason as you,' my father says. 'Ongoing illness.' He pulls out an injector of cortisone and neatly rolls up the leg of his suit and his compression bandage. His knee is swollen and a dot of blood and coolant weeps from where the hose was attached earlier. A tight red scar six-inches long runs the length of the joint. Even from my seat next to him, I can feel the heat radiating from it.

'I thought immediate family members of officers were given immunity from selection?' Vincent asks.

I nod, my mouth twisting wryly. 'That was true until two weeks ago. My father is one of the first five hundred of the new system."

Vincent nods curtly and returns his gaze to me. 'That jammer may be all well and good, but what's to stop us from turning you in?'

Possible tetchy answers and threats tumble half-formed through my head, my belly grumbles again; I need a cigarette. Indecisive, I settle on the simplest answer. 'In the end, you don't have anything to gain from it.'

'And if we chose to do so anyway?' Artemis challenges.

'If you did, I would immediately identify the two of you as a flight-risk and danger to society. Vincent would be terminated today and you would be arrested, if not terminated yourself. I'm giving you the option to spend the next fifty-two weeks trying to help yourselves or help us as well. You have nothing to gain by hindering me and everything to gain by getting out of my way or helping.' I can hear my pulse pounding and snap my jaw closed to prevent any more anger seeping out. I don't like losing my temper, but I'm risking everything and I'd kill for a cigarette right now.

Nearby, the Ding-Dinner hums to life; they must have it on a timer. Like a dog, my belly has been conditioned to the sound and growls loudly in anticipation. A tense moment passes as Artemis tries to stare me down. White lines of anger are etched in his face from his flared nostrils to the corners of his mouth. He averts his eyes when Vincent clasps his shoulder with a squeeze. I take a deep breath to try and calm my nerves; I can at least try to be civil.

'Now, then, Artemis-' I begin.

'I prefer Art,' he snaps.

'Why? Because Artemis is a girl's name?' I snap back. So much for civility.

'Stop it!' roars my father. 'I will not allow you two to snipe at each other when we have a common goal to achieve.'

I take a deep breath and clench my fist under the table. 'Art, then,' I say through gritted teeth. 'I take it you are a programmer of some note?'

'What of it?' he challenges insolently.

'Artemis,' his father warns.

'Fine,' he spits. 'I'm pretty good. Now what of it?'

My hand clenches tighter under the table. 'Because,' I say, speaking to him like the child he is. 'If you are any good, you might be able to find a way to change the medical records. You can alter both our fathers' age records and fabricate reports of improved medical progress.' The smell of fresh bread and hot bacon permeates the apartment; I swallow hard to rid myself of the saliva accumulating in my mouth and drive my clenched fist into my belly to smother its grumbles.

'That isn't what being a programmer means,' he says.

'No,' I reply. 'But I doubt someone like you is limited to the specifications of a job description. Come on, how many chips have you got?'

Art's hand disappears into his thick blanket of hair, rubbing at a spot just behind one ear. 'More than enough,' he says sheepishly, with the first hint of a smile.

Vincent gets to his feet with a little difficulty and walks to the kitchen; his bad leg drags only slightly.

'The records are all offline,' Art begins thoughtfully. 'I should know, I've tried to find them that many times to-' he glances at his father. 'To... to have a look.'

'I don't even know where to begin looking, or how,' I continue. 'But the records are always a good start, if we can find them. Plus, if you agree to join us, we'll need to set up a communication route below the network.'

C. ROPER, 2064037 Flinders University PhD Candidate 'Who wants coffee?' Vincent calls. The three of us call out our agreement and my father gets up to lend a hand. He may have been a farmer, but like many labourers, he's smarter than he looks; he's one of the smartest men I know, especially without a brain chip. He could sit here and discuss tech and strategies if he wanted to, but his knee must be hurting and making him restless if he's decided to get up and move around.

The empty injector is tucked neatly under his gloves, its tip covered – I didn't even see him use it. Cortisone is incredibly painful and I can't help but frown in worry for my father. How much pain must he be in to resort to this in the presence of others? With a start, I realize Art has been talking while I've been lost in thought.

'... Need to access city records to start compiling a list of possible locations for the medical records. Ana might be able to help with that, she's the head of a construction team.'

'Ana?' I ask.

'My sister, Diana,' Art makes a face. 'She was named for our mother and then our parents thought it would be hilarious to call me Artemis.'

'You're twins?'

Art nods.

'How? Gen One had a very strict one-child policy.'

'It's a long story. My mother somehow fell pregnant with me at the same time that Ana was implanted. Instead of being a happy little accident, I became a happy little experiment. My mother was permitted to carry both pregnancies to term as a study on genetically modified babies versus non-modified babies in the womb – you know, growth rates, viability and the like.' I open my mouth to question him further, but the Ding-Dinner suddenly interjects with a cheerful 'ding' and I have to close my mouth again. As the steamy scent of toasted bread and crisp bacon floods the room, my mouth floods with saliva.

My father, smoothly disguising a pained limp, neatly distributes four mugs of rich coffee to the table then returns to Vincent. It takes a considerable chunk of my willpower not to immediately begin drinking.

Art barely pays his mug a second glance. 'Thanks,' he says distractedly, frowning in concentration at the tablet on which he is rapidly typing.

Attempting to feign a casual demeanour, I take a sip from the rich, velvety coffee. I can't often afford things like bread and even coffee is frequently a luxury. When I splurge and convert a mug on my shitty Ding-Dinner 25 I'll usually split it in half and water it down, freezing the other half for a poorer day. Most EEO's live in barracks, where accommodation and food is provided, leaving their modest salary for everything else. However, pets are not permitted and my wages only stretch so far once rent, food and veterinary bills are factored in.

Vincent slowly shuffles back into the room, concentrating intently on the tray he's gripping with both hands. It trembles, but I know better than to offer help. Besides, I'm too busy mentally berating myself for my lack of self-control, digging my fist into my belly again to quiet its ceaseless grumbling.

My father and Vincent retake their seats at the table, each taking a plate and a steaming bacon and egg sandwich. More sandwiches remain in a pile on the tray. My father hands one to me and I suddenly recall the eight zeroes that comprised the Wynne's credit balance for their consumables unit. Narrowing my eyes, my head seems to swivel slowly of its own accord to glare accusingly at Art, who is trying and failing to look innocent as he sinks his teeth into a 250-credit breakfast sandwich.

'You,' I say slowly.

'Me?' Art says, features contorting as he attempts to hold down the traitorous corners of his mouth. Suddenly he cracks and a mock-guilty grin eats the lower half of his face.

My father and Vincent both laugh and I stuff the sandwich into my mouth to disguise my own smile. It's good, incredibly good; hot grease almost scalds my tongue and the heavy feeling the food puts in my belly is bliss. My shitty model 25 doesn't always work too well – even something as simple as an apple might not convert properly and squishes in the middle as you bite it, leaving a feeling of puree in the belly.

As I eat, my mind wanders. Art perplexes me – not just because he should never have been born but because he's clever, very clever for someone who is just 22 and yet still such a child. I'd wager the other half of my sandwich that he wrote at least some of the programming on his chips.

'... The Gen One system really wasn't too bad,' Vincent is saying. 'And until we find a better way to deal with the overpopulation, it's probably our best bet for controlled population growth for the time being. Even though the next baby-boom is in three years.'

My father nods thoughtfully. 'However, if we want to decrease the rate of termination, we need to do something about the food shortages. As is quite obvious, the credit allowance doesn't always work.'

Art at least has the grace to look mildly contrite at this comment.

'Then I assume our first step is still to locate the medical records,' says Vincent. 'With this information we can begin the work of finding people identified for euthanasia and figure out what exactly constitutes a basis for termination.' 'And then from there I guess we try and see what the city's plans are beyond killing everyone who is either ill or sick to make room for the baby boom,' I conclude for him. 'They've got to have some plan for the food shortages, surely.'

I swallow the last of my coffee with a sigh. The table is silent for the moment.

'Well,' I say. 'I hate to ruin the mood, but there's a trivial matter to attend to before we make our leave.' I pull the implant gun from my pocket, checking it has Vincent Wynne's correct name, age, reason for termination, time remaining and GPS location. 'I'm sorry, but I have to implant this in your palm, Vincent. Your nondominant hand would be best.'

Slowly, Vincent lays his left arm on the table. His fingers are furled together and seem to have difficulty unfurling as I gently pry them open. Donning gloves, I swipe his hand with a sterilizing agent and press the nozzle of the gun to the centre of his palm. A rapid trigger-pull, a sharp intake of the breath, a swab of cotton to stem the bleeding; it is done.

'The implant is less than the size of a grain of rice,' I explain. 'In two or three days, you won't even know it's there. I'm sorry,' I add, because I am. 'I can jam my tracker, but I can't get away with not doing the implant.'

Art's fingers press against mine, taking my place in applying pressure to Vincent's wound. 'I'm sorry,' I say again. There is a pain in my chest I don't understand.

Vincent smiles. 'Nothing worth doing is easy,' he says.

My father rises, leaning heavily on the table as he gets to his feet. 'Come,' he says to me. 'We should leave these people to their allocated bereavement time.'

I blink at my father as my mind races to catch up with EEO protocol. 'Of course,' I say, and turn back to Vincent and Art. 'I have to return every week to pay a

mandatory visit. Usually it is to begin organizing Wills and the like, which we can still do, just in case...' I swallow and trail off, the taste of egg yolk creeping up the back of my throat. The grease is an uncomfortable weight in my belly.

Art lifts the cotton swab – the bleeding has already stopped. Vincent gives me another reassuring smile, but it doesn't seem to help the feeling building in my chest.

My father pulls the top half of his suit back up, zipping it quickly. He hands me my ID, jammer and goggles and, as I catch sight of the fresh, pink scar on his own palm, I fumble putting them on. I'm not usually this awkward and clumsy and I'm ashamed to feel the red heat of embarrassment in my cheeks.

My father shakes hands with first Vincent, then Art and then leads the way to the door. The rush of hot air reactivates my temp-regulator; the cool wash seems to steady me and I go to join my father outside.

'Wait,' Art says, and dashes into another room. He returns quickly with a slip of paper in hand. On it, two numbers are scribbled. 'The first is mine,' he says. 'The second is Ana's. Call me and we can get together.' Interestingly, my goggles show the pound of pulse in his throat, his dilated pupils and a slight red creep in his own cheeks.

'I came to kill your dad and you're asking me out?' I ask, and immediately regret my words. 'No, I know what you mean. Sorry. We need to meet to begin the work. I'll call you. Sorry,' I mumble, stuffing the paper into my pocket before I can stuff my foot any further into my mouth.

My father and I trudge silently down the seven flights of stairs; the sound of rushing wind builds in my ears, drowning out the sound of my pounding pulse.

When we reach the ground floor I can't take it anymore and vomit in a nearby corner, hard. Sweating, shaking, I wipe my face and join my father for the walk back to my mother's clinic.

'You need to eat better,' he says.

I spit a few times and run my tongue over my teeth as we walk, attempting to rid them of the clinging debris of vomit, but stubbornly, flecks remain. My father, for the most part, is silent.

He gestures to a pillow of black smoke staining the white sky. Faintly, we can hear sirens. 'Looks like another electrical fire,' he says. 'Probably the Kaiser District.'

'No wonder,' I say, glancing at my comms. 'Look at the temperature.'

He nods and we continue walking in contemplative silence. The scrolling news banner in my goggles seems to assume an electrical fire as well and my teeth still feel as if I've been eating coffee grounds.

At my mother's shop we separate with little more than a promise to call as I begin heading for my own apartment. He will fill my mother in on the meeting and I'll spend the rest of the day working on my active cases.

When I reach my building, I have to pause twice on my way up the stairs. To be fair, I argue with myself, I do live on the tenth floor and I have just walked all the way to and from the Wynne's house, not to mention all of their stairs and the vomiting on top of my regular day's work.

Tapping my comms against the sensor, the scrabbling of paws on the other side leads me to smile. Inside, the wash of air conditioning is a blessed relief and I begin stripping off my gear and emptying my pockets as Hooch dances around me. Goggles, jammer, ID, gloves, sun-protection – it all gets heaped on a pile of other frequently used things on the bench. Not feeling so great, I continue to strip down to my underwear, throwing my sweat-soaked clothes in the general direction of the overflowing laundry basket.

My skin prickles in the cold ambience of filtered air conditioning, adding a shiver to my already present shakes, but I feel like I have a fever. Hooch's cold nose is a shock against the hot, tight skin of my palm. Maybe dad is right, I think, absentmindedly rubbing Hooch's misshapen ears; maybe I do need to eat better. Faintly, I can still hear sirens.

Turning, I come face-to-face with my Ding-Dinner 25. It squats on the bench like a fat gangster, its luminous glare accusing me for its low credit balance. If I want to have a few drinks tonight and still be able feed Hooch and myself for the rest of the week, I'll need to order carefully. Briefly, I entertain the idea of getting Art to do to mine what he did to his but it doesn't seem right.

Indecisive, I punch the three-number combination for the pork-ramenflavoured Nutri-Soup; parts of the screen are worn from the countless other times I've ordered this item. The Nutri-Soup is rich in nutrients, but with little actual substance, which is why it's so cheap. In fact, 'soup' is probably an overstatement; it's more like sludge. Thinking back to my dad's words, I impulsively punch the button of the much less frequently used 'bread roll'.

The Ding-Dinner slowly hums to life, glowering angrily as if disturbed from rest as I go to arrange my case notes on the small table at the foot of my bed. The Wynne case goes at the back, leaving the Roberts case on top. My heart drops – Sparrow Roberts is due for euthanasia tomorrow. Roberts is frail and elderly and has requested an early euthanasia but it's never an easy thing to do.

I groan, covering my eyes with the crook of my elbow and reclining into my gel pillows as Hooch settles down to watch over me. His silky fur is a comforting

luxury. I hate doing euthanisations almost as much as I hate getting my ceremonial uniform pressed for the funeral.

When I uncover my eyes again the room is flooded with a stained-glass effect from the neon signs streaming through the slatted blinds. The Ding-Dinner must have clicked off hours ago. I ache all over and my hands and feet are numb. Though the air conditioner has deactivated, the temperature has dropped quickly with the onset of night.

The Nutri-Soup might have been worth eating when it had been fresh but the passing hours have turned it into a goopy gelatinous mess and the bread roll oozes when I touch it – it had never converted properly in the first place. My Ding-Dinner really is a piece of shit. As neither item seems worth giving to Hooch, I fetch out one of my precious few tins of dog food. His brindled, mismatched face lights up in pleasure and he dances once more. For this, the cost of tinned food is worth every credit.

Outside, it's even colder and I begin to shiver through the layers of thermals and coats I've shrugged on. Not even the cigarettes help as I shoulder my way through the crowd. Without my uniform and goggles, the population doesn't recognize or avoid me; in fact, I barely register as a life form as I shove my way onto the MagRail platform.

Ordinarily, I wouldn't stray so far from home just for a couple of drinks, but my usual bar was demolished two weeks ago to make room for more housing. It's been a shitty few weeks – first my bar, now my father. Tapping my fi-card on the ticket scanner, I board the MagRail for the next district. An overhead sign warns that this is a high-speed driverless unit; passengers are advised to take due care. The usual crowd for this time of the evening floods the carriage – the day-shift of construction workers have just clocked off. Their bodies are studded with intricate patterns of LEDs, sub-dermal implants and heavy-duty temp-reg chips. I itch to know more about makes, models, manufacturers and modifications, but without my goggles I have no access to their information. Nearby, two men sit close together, one with a dazed expression. Judging by the small bandage behind one ear, he's just had a chip changed or inserted.

Three stops, a two-minute walk and one cigarette later I'm standing outside the bar calculating what I can afford. Trying to feed one person and a big dog on a very small salary means my choices are limited. Converted beer is thin and pale and has the distinct aroma of burning plastic, but it does the trick. If I didn't have Hooch or the debt for his veterinary bills I could probably afford real beer, or at least beer as real as real beer gets. It's made from converted hops and brewed in the traditional process but the burning plastic taste is much fainter.

A jug of the house cheapest joins me in a booth. The condensation clinging to the glass is incredibly distracting, as enticing as it is to the tight, anxious feeling in my chest, but I need to work on my reports.

After a half-hour of little progress, I need a cigarette. It's more difficult than I imagined, fabricating an after-action report. Even with all the previous reports I've written to draw on, my mind keeps wandering to Art's home-programmed chips, his ideas of working with construction labourers, and his contact number burning a hole in my pocket at home.

Wandering outside to the so-called 'beer garden', the biting cold stings my nose and I struggle through a little more of the report, inserting key phrases like, 'seems amenable to euthanasia,' 'low flight-risk' and 'limited mobility.' As I begin to make progress, my thoughts of Art turn uncomfortable and I fear betrayal, I fear my father's time slipping away and I fear the sick feeling creeping up my throat and the shake in my hands. Despite the chill in the air, I begin to sweat.

The wind whips at my lighter's flame as I attempt to light a cigarette; the papers clamped under my elbow strain and flutter and one sheet catches the air and streaks away.

A day-shift labourer, well into his second or third jug of beer, stops my paper's path with his boot. With great concentration, he manages to bend and retrieve it, brows furrowed as his eyes focus and scan the words 'Funeral and Cremation Preparations'.

My heart drops. I don't want this, but judging from the furore rising in the man's cheeks this is exactly what I've got. Raising my cigarette to my lips I take a draw, trying to hide the shake in my hands as his shadowed eyes meet mine.

He's about sixty years old and built, as my father would say, like a brick shithouse. The glow of subdermal implants above and to the side of his brows casts his eyes in heavy shadow. Heavy-duty temp-reg chips gleam through the barbed wire of his beard and a faltering-LED below one ear indicates a malfunctioning impulse balancer.

As he steps toward me, he clenches his fists in anger, scrunching my paper.

'Th'fuck do you think you're doing here?' he says. His voice is like the sound of collapsing rubble, if rubble could slur its words. 'Shouldn't you be in the Nye District or somewhere else fancy?' He takes another step. 'It's bad enough you come into our homes with your dead eyes and kill our families, you gotta come here too and rub it in our faces?' He has advanced as he talked and I try not to flinch as his spittle hits my cheek. My features are carefully schooled and expressionless. There's no point trying to explain that I could never afford to drink in the Nye District.

He closes his fist into my coat collar and yanks me off my seat and away from the papers I was holding pinned to the table. I sigh inwardly, expecting to see them whipped away by the wind, but they don't appear. The chink of glass leads me to believe someone has pinned them with an empty jug.

'Answer me, you fuck,' he yells and gives me a shake.

Slipping my hand into my pocket I turn on my stun gun, but I don't want to stun him. I just want a quiet drink. Faintly, I can hear the taser's prongs begin to build up charge.

'Look,' I say in a low voice. 'I'm not here for any trouble.'

'Well you've fucking got it!' he roars and raises his fist. 'My mother "didn't want any trouble" but you lot fuckin' killed and crisped her, didn't you!'

I manage not to groan out loud. Almost. I don't know how many of the shadowy eyes behind this guy are on his side. If I stun him I could end up with a bigger mess on my hands while my beer goes flat. It's better not to say anything, better just to turn the other cheek and take another drunk's beating.

'You fucking murderer!' he yells and pulls back his fist, but is caught around the wrist before he can introduce it to my face.

'I don't think you want to do that,' says an even voice behind him. 'You're on your last strike, bud, and if the agency finds out you'll lose your job. Then you won't be able to care for your family at all.'

My new friend does not attempt to pull away from his restrainer's grip. However, nor does he release his hold on my coat front. 'You'd tell on me, Big Red?' he asks her, his eyes not leaving my face.

'Of course not,' she says. 'You know me. But you know them, too. They always find out.'

His hands creak as they tighten once more and his jaw is gritted with the restraint it takes not to hit me, but he shoves me back in my seat with the fist clutching my crumpled paper.

'Don't come to this bar again,' he says. 'I may not be able to stop you this time, but there are others who can.'

I nod silently, maintaining his eyes evenly as he stalks back inside. My forgotten cigarette is completely ash in my fingertips and I'm strongly resisting the urge to rub the tender skin at the base of my throat where his grip pinched me through my coat.

'Thanks,' I say, turning to the woman. 'But you didn't need to intervene. I had it under control.'

'I'm sure you did,' she says dryly. 'But I didn't do it for you.'

I can't help but notice the thick muscles in her shoulders and arms and the youthfulness of her face as she helps herself to my jug of beer. She's young; Gen One young with hair the colour of ginger and honey. Why the hell is a designer-baby working labour?

'No, go right ahead, be my guest,' I mutter sarcastically, gathering my papers.

'Sit,' she orders. 'Have a drink with me. I've got another jug on the way, one that isn't full of piss and battery acid.'

For a few moments, we sit in silence and study each other.

'Why do you do what you do?' she asks me.

'I could ask you the same thing,' I reply.

C. ROPER, 2064037 Flinders University PhD Candidate 'My job doesn't kill people,' she retorts, and to that I have nothing to add.

The charge in the air reminds me my stun gun is priming in my pocket and I reach to switch it off. Without the pressure of that high-pitched whine, the situation relaxes just as the new jug arrives.

'Why do I do what I do?' I hesitate. Strangers have asked me this question before and it never leads anywhere good. Then again, there's beer on the table and I didn't pay for it and my curiosity over this muscle-bound baby-faced Gen One kid is getting the better of me.

'There's a lot of reasons,' I begin slowly. 'And they're all complicated, but if you're willing to hear me out-'

'I am.'

'-then I'm willing to try and explain them.' No one seems to be paying attention to us, but I lower my voice anyway and sigh. 'One of the simplest reasons is that there are people who are ready to die, like my aunt was. In those cases, I get to make sure their Wills are legally watertight and their departure is as safe and as comfortable as possible. Those are the cases I like, where I can help.' I pull a face; I don't think I'm explaining this very well and I take a sip of beer to buy myself some time. 'What I mean is, even in normal death Wills are often not up-to-date or not binding for whatever reason. Doing what I do helps stop the government taking any more from grieving families.'

She raises her eyebrows in query and I feel myself getting flustered.

'You care about the families left behind,' she says, but it's not a question.

'Yes, of course. Being an EEO, or at least being a good EEO isn't about killing one client and moving onto the next as quickly as possible for the Cremation Bonus. There's a whole spider web of other details that are often neglected.'

'You know,' Big Red says. 'You're the first EEO I've met who called it what it is – killing. Not "euthanising" or "completing a target" but killing.'

'It is what it is when the client isn't voluntary. You've met others?' I ask.

She shrugs. 'A few.'

'How were they?'

Hesitation. 'Different,' she admits. 'Less understanding. More...'

'Dickish?' I supply. 'Arrogant? Blind to the fact that they or their families may be next? Mindlessly trusting the words of those above them?'

'Calm down,' she smiles. "'Dickish" would have done just fine.'

I take a sip from my drink to hide the flush of embarrassment in my cheeks; I got a little carried away.

'There are other reasons, you said?' she asks and I nod.

'Let's say someone you love has been identified for euthanasia and they are not one of the few who actually want to die,' I continue, choosing my words carefully. 'I will do what I can to fight the case. You and I both know it rarely helps, but wouldn't you rather their killer was on your side, so to speak?' She looks unimpressed and I rush to clarify. 'I don't want to kill, but I would much rather be the one to give that lethal injection than the asshole who killed my aunt. Even though she was ready to go, there was no compassion for her situation from her officer. He pushed her euthanasia forward so many times that no one made it to her funeral and she died alone. Her Will was not legally binding so we lost everything, including her remains, which were "misplaced".' The heat in my cheeks and the pain in my jaw alert me to the anger that has crept into my voice and I struggle to let it go. The cold beer is a blessed relief against the hot, bitter feeling in my chest, but my head feels light and dizzy. In through the nose and out through the mouth – the cold air stings as I take a deep breath and, gradually, the knot in my jaw begins to ease. That is, until she speaks again.

'And?' she says. 'What are you doing about it?'

'What – what am I doing about it? Didn't you hear anything I just said?'

'All I heard was the conscription tale of another EEO, how they got another killer on their payroll. Not how you're doing anything to stop it.'

The indignation leaves me breathless and I want to lash out, to tell her she's wrong, to tell her how I'm trying to stop it, starting today with the Wynne case, but I don't. On one hand, I don't know if I can trust her. On the other, she's right. Starting today with the Wynne case doesn't excuse all the lives I've taken over the last fifteen years. I'm little more than a murderer with better customer service. If only I had started trying to put an end to it fifteen years ago, my father wouldn't be in this position today.

The realization hits me like a punch in the stomach and all my air leaves me in one gushing exhale. 'It's all my fault,' I faintly hear myself wheeze.

'Hey, whoa now, I didn't say that,' she says, as she moves to sit beside me. 'Did you bring about the Generation Disconnection? Did you propose or pass the Euthanasia Laws?'

I shake my head, no, to both questions.

'Do you do all you can to help those ready to die?' she asks, and I nod. 'That's what I thought. Just because you're not the solution doesn't mean you're the problem. I mean, yeah, you're some of the problem, but voluntary euthanasia is a good thing and you're doing what you can do help, but it takes more than a band aid to fix a dam, or something like that.' She pauses. 'Fuck, this went poorly,' she whispers and I can't

help but laugh. 'I guess what I'm trying to say is you'd never be able to stop this by yourself and it doesn't need stopping, just amending, so, well...'

'Don't give up my day job?' I interject, and it is her turn to laugh.

'I guess so,' she smiles, but then the smile fades. 'Are there other reasons you have for doing what you do?'

'Not really, why?'

She hesitates. 'Well... what about vengeance? For your aunt?'

I consider her answer for a moment, turning it over in my mind. 'No,' I decide finally. 'I'm not after vengeance.'

She fiddles with her glass, turning it around and around in the palms of her hands before speaking again. 'Do you know who your aunt's officer was?' she asks.

The knot in my jaw is back as my teeth clench together in remembered anger and I want to lie. 'Yes,' I admit finally. 'But I met him while he was still her officer. I didn't use my job to find out.'

'I didn't say you had,' she teases gently, but I am tired of the conversation being on me.

'And you? Why does a Gen One designer-baby forgo all her genetic advantages and work labour?'

She leans her powerful frame against me to refill our glasses and the smell of her sweat mingling with the scent of her hair intoxicates me, though I may already be drunk. My anger melts away to be replaced by something more insistent.

'If I told you, I'd have to kill you,' she whispers, and I laugh.

'A name, then?' I bargain. 'Your boyfriend called you Big Red, but surely that's not your name.'

'He's not my boyfriend,' she says, and smiles.

C. ROPER, 2064037 Flinders University PhD Candidate

Chapter Two

A few hours before the air will once again begin to turn hot and still, I ask her again.

'Why do you do what you do?'

Her fingers, which up until that moment had been tracing lazy patterns on the shallow concave of my belly, go still. I feel her purse her lips against my shoulder and I fear she will not answer, but the moment passes, she continues her patterns and opens her mouth to speak.

'Why shouldn't I?' she says simply. 'Just because I'm genetically engineered, I shouldn't dirty my hands?' Her voice, like mine, has the slightest hint of a slur. We're both still a little drunk and a lot drowsy.

'Just because I'm Gen One, I should only take what is considered a clever job?' She continues. 'How many Gen One kids do you know working in any kind of physical job?'

'None,' I admit. 'Though I only know about five.' In my head, I rattle them off: my mother's receptionist is also her nanotechnology apprentice. There are two kids training in the Euthanasia and Cremation Chambers and the Wynne boy does... whatever it is that he does.

'Exactly,' she says. 'Your work only leads you to the old and injured, those whose bodies are breaking down, or, to put it simply, those who have worked hard for a living. But who will take their places when you've killed them all?'

My fingers cease their stroking of her ginger-coloured hair.

'Not the physicists,' she answers for me. 'Not the chemists or the biologists, or the software engineers; not the politicians and not the Military Police. Not the precious Gen One babies.' To this, I have nothing to say; there's a wooden block where my tongue used to be. Considering the ramifications of her words and staring sightlessly through the darkness at her ceiling, my eyes dry out and I need to blink a few times.

'So tell me,' she continues, rolling onto her stomach. Her face is only a few inches above mine, propped as she is on her elbows. There is something strangely beautiful about the patterns of LEDs adorning her body. 'Why shouldn't I be a labourer? Because I'm female? Because I'm young? Those are bullshit reasons. Because I'm genetically engineered? I'm stronger and healthier than any other labourer, shouldn't that be a point toward taking a physical job?' My fingers, which have resumed their caress of her scalp, find three little insertion scars.

'What are your chips?' I ask, curious. By the press of her cheek against my palm I can feel that she is smiling now.

'Civil engineering, infrastructure and architecture,' she answers. 'Besides, why should my destiny be predetermined by happenstance of a fortunate birth?'

'It shouldn't,' I say, and her lips are still just as heady as her spice-coloured hair, soured only by the beginnings of a hangover. 'And I shouldn't, sorry, I have to go.' I want more, I want to know her real name and I want to fall asleep, but what I want and what I need are two different things right now. I need to get home to Hooch – the guilt at keeping him locked up all night and yesterday is eating me on the inside and I need to get my uniform pressed. I have a funeral to attend in a few hours.

Reluctantly, I stand and begin to dress. Some of her LEDs are reflected in the whites of her eyes and I can see she's watching me, her expression unreadable in the darkness and deeper alien shadows cast on her face by those same lights.

Once I am dressed, she stands and wraps a sheet around her shoulders and begins to show me out but is pulled up short by my fingers encircling her wrist.

'Your real name, please?' I ask, giving her my most winning smile.

She tilts her head to one side, considering my request; her own smile threatens to break her composure. 'Why ruin a good thing?' she asks, handing me my coat and locked folder of neglected case files.

My mind is a tumult of thoughts on the train; Big Red, Hooch, the funeral, my uniform, Art and Vince, my need for a cigarette and most pressing of all, my father. At the sad whine of my belly, my father is relegated to the place of second most pressing in favour of food. Paired with my sour hangover, that cry of my belly is seriously screaming for sustenance.

Back at my apartment, Hooch is almost frantic in his delight at seeing me and he grows positively hysterical with joy when I drag out his leash. I have just enough time to grab my ceremonial uniform before he tows me out the door, bounding almost faster than I can follow down the ten flights of stairs.

It is beginning to get humid down on the flat; windows are starting to cloud with steam and the tiny slivers of sky I can catch through the buildings are tinged with the first faint red taint of dawn.

As we walk, the garment bag flaps awkwardly against my legs, becoming entangled with Hooch's leash. Hooch himself seems destined to wrench my shoulder from its socket, determined as he is to snuffle the entire path. Somehow, he pauses long enough for me to deposit my bag into the dry-cleaning slot and select CLEANING, STEAM, GARMENTS (1), EXPRESS, 600 CREDITS, tap my fi-card and snatch my receipt with the claim number. I really hope they can get the sauce stain out from last week's funeral. For 600 credits, I would assume so. I also hope the department reimburses me soon for the last three weeks cleaning claims, as it seems I need to buy dog food again. Food, my belly interjects, food would be nice.

In this part of the city, pets are a luxury and the few people out at this hour are blatantly staring. I can't blame them though, given Hooch's size. With his head as high as my hip, he's a big boy, making him an extreme rarity.

'Fuck me, is that a dog or an animatronic?' whispers one man.

Ordinarily, the remark would make me smile, but not now. Now there is too much on my mind and not enough processing power to deal with it all. The least of which is Big Red. I wish I'd at least gotten her real name, even if she didn't want to give me her number. It's not often people will look past what I do for a living to even give me the time of day.

My thoughts turn to Art, his number still burning a hole in the pocket of my pants at home and the flush of blood to his cheeks, the dilation of his pupils, the jump of his pulse in his throat – almost indiscernible minutia of interest. It would be unethical, of course, but I cannot help but to entertain thoughts, just for a moment, on his caramel-coloured hair, those tiny scars in his sclera and that enticing throb in his slender neck. Almost immediately, however, interest gives way to fear and my stomach knots painfully. Betrayal, distrust and the extreme likelihood of failure resulting in death override even the extreme hunger borne only from a hangover. Over and over again, my fingers scrunch and unscrunch the cleaning claim check in my pocket; I hope the scanner can still read it.

From what I can see of the few glimpses of sky between the buildings, the day has now fully dawned and is beginning to grow muggy. Hooch pants patiently by my side, his thick double-coat no friend to the rapidly increasing heat. Perspiration prickles my underarms and forms a slick tickle on my upper lip, but it isn't the sun making me sweat. Clicking my tongue we turn and head back the way we came, chain-smoking all the way.

In the mirror at home I study myself dispassionately. Hooch laps noisily at an old crock-pot full of water.

'Come on, bud, try and keep it in the bowl, would you?' I call to his reflection. 'That shit's expensive.'

Hooch lifts his dripping muzzle and grins at me. I cannot help but smile at his pink tongue draped elegantly out one side of his mouth.

The cleaners had done a good job removing the sauce stain, I note absentmindedly, tapping in the limo-request form on my comms. Really, there was the faintest hint of barbeque, but only if you were looking for it. The request confirms with a faint chime and an estimation of seven minutes, just enough time to make my way downstairs without rushing.

With my goggles on, it is easier to pretend not to notice every nose wrinkled in disgust, every lip curling in distaste and every jaw jutted in anger, even as the software picks them out in high-definition. I've never been attacked in my ceremonial uniform with my service weapon in its holster under my armpit.

The limo is early; it idles by the curb in all its glossy grey glory. It was modelled on old morticians vehicle with the clear windows and roof of a hearse, but the stretch seating of a limo. It tootles merrily twice at the approach and successful wireless link of my comms, as if we needed any more attention. I opt not to drive with a hangover and slink into the back, tapping in Sparrow Roberts' address as I buckle in. The car tootles again as we glide away to commit murder. At precisely 7:30 AM we reach the Roberts' residence. The entire funeral procession stands outside in the heat in an all-black ensemble. Sparrow is the only one not weeping.

'Good morning!' she trills. 'It's a beautiful day to die!'

I smile indulgently, holding the door for her ten closest friends and relatives to file into the car. Inside, a champagne bottle pops and the mourners cheer wetly.

Sparrow chatters the entire ride. My fingers clasped in hers, she pats my wrist periodically for emphasis.

'... And you know old Ben, from the next apartment? He said he was going to walk behind the limo. Old-fashioned, he says. "Old fashioned, my ass!" I said. He'd die before he made it a block and no one would get to go to his funeral next week.' She lowers her voice in mock-conspiracy. 'Mind you, I think he's still pissed I moved my funeral forward to before his. He told Sadie – you know Mersadie from three floors up? He told her I'd stolen his thunder.'

I raise my eyebrows in question. 'Oh? And did you?'

Sparrow cackles and squeezes my hand. 'My dear, I won't admit it to anyone else, but you know I did!'

Despite her seeming levity, I can't help but note the way her moist brown eyes continually dart out each window.

At the clinic, guards flank every door. They permit me entry with a slight nod and a murmur of "Corporal". Delicate piano music is cut periodically by the hiss of the automatic door lock as guests sign in and enter.

Sparrow seemingly couldn't be any happier, tittering as she is about the floral arrangements, the screen displaying her life and 'that Astrid girl's simply horrid dress'.

Inside, guests are bunched around the complimentary buffet, which, I note, has been getting subtly more meagre over the last fifteen years. Cries of delight over cucumber sandwiches harmonise with murmured praise for the popcorn chicken and tiny skewered-shrimp. Sparrow, however, still has my hand tucked neatly into her elbow as if I was an easily misplaced child. I am forced to remain an accessory to her funeral attire as she makes her way around the room, pressing her clean cheek in a kiss against the cheeks of her guests, besmirched as they are by mourning veils of crumbs and tears.

Finally, though, she is drawn away for formal photography with her guests, though her eyes linger on mine with an unspoken urgency. I cannot help but worry over her as I load a paper plate with popcorn chicken and retreat to a spot near the velvet curtain of the Euthanasia Chamber. I also cannot help but wonder where the second EEO is – every euthanisation must be presided over by two officers, and so far I was the only one here.

'Hey there, dickbag,' whispers a voice just behind me, but I don't manage to move fast enough to avoid the open-palm punch to my back from behind the curtain. Stumbling, I end up pressing the paper plate against the front of my uniform. Fuck. At least I didn't get sauce this time.

Turning, I glare. 'Winter. What the fuck is your deal?'

'Popcorn chicken?' he says, ignoring my question. 'You're fucking sick. We'll be crisping the old bird up soon enough, but you can't wait, can you?' He grins, taunting me. 'I know she was one of your favourites, but come on, that's disgusting.'

Sergeant Winter Walker, it seems, is unfortunately the other attending EEO and an all-around class act as always. Though he insists I call him by his first name,

he is still a rank above me and our encounters always try my patience. The only way to even sort of win is to not fight, I remind myself, turning away.

'You look like an ashtray!' he hisses.

'We're wearing the same thing, dickhead,' I can't help but hiss back as my eyes make contact with Sparrow's desperate stare. It really was a poor design choice, these grey robes. They were meant to symbolize doves and peace but all they do as serve as reminder for what's about to happen.

Picking my way through the crowd, I can feel both Sparrow and Winter's eyes boring into me, plus the countless more guards and guests watching my every move, waiting for the call to move into the Viewing Room. Finally, I reach her.

'Sparrow,' I smile warmly. 'How is everything?'

'Wonderful, just wonderful,' say her lips, but her eyes are telling another story. She raises an empty glass to her mouth.

'Whatever you do, don't leave my side again,' she murmurs, the rim obscuring her words. She seems to be studying the screen showing clips from her life as she says this and at first I am not even sure it was she who said it.

This I had not expected. There are always clients who are frightened, but Sparrow had refused even the calming pill in the limo. Further, it was she who requested her euthanasia brought forward two weeks ago and suddenly opted out of organ-donation.

And so I found myself glued to her side for the next 90 awkward minutes as eulogies were read, final goodbyes was said and tearful hugs were had, an unwanted accessory to every last intimate moment. One by one, the guests say their final goodbyes and file into the Viewing Room attached to the Euthanasia Chamber. Eventually, we are alone. 'Sparrow,' I say gently. 'What is it?'

'Not here,' she commands, voice hard. 'In there.' She nods to the red velvet curtain, behind which is a simple airlocked room with a reclining chair and a tray of medical equipment.

'Quickly,' she says, striding to the chair. 'Look like you're preparing. Is this room completely soundproof?'

'Yes... Ah, roll up your sleeve, please?'

'No bugs, nothing?'

Running a thumb over my mother's jammer in my pocket, I'm not even sure why I brought it. I struggle for a moment, before blurting out its presence.

'Everything you say is safe,' I add.

Sparrow closes her eyes and nods once. Opening her eyes, she takes a few deep breaths, watching me sterilize my hands, don gloves and switch on the vein-scanner. As I don't have to prepare her for the life-support for organ donation, our time is very limited.

'It's that Winter Walker boy,' she says, voice low as I palpate her elbow. 'He's been following you night and day for the last four weeks. This is the only place I could think of safe enough to tell you.'

My fingers freeze, the blood drains from my face and the curtains for the Viewing Room open before I can reply.

An electric hum cuts in, signalling the audio link between the Chamber and the Viewing Room. Winter's smooth voice resonates in the small, tiled room.

'Dearly beloved, we are gathered here today to witness the passing of Sparrow Roberts...'

His words are almost drowned out by the rushing thumps of my pulse in my ears. My mouth is drier than the air outside, and I can't seem to stop swallowing. I'm thankful, now at least, for my goggles acting as executioner's mask, rending my eyes unreadable to Winter's scrutiny.

As if on autopilot, my hands have inserted the cannula into Sparrow's vein, measured the lethal dose and connected the syringe to the IV port.

The software in the goggles picks out many details Winter and the audience can't see. Fear has caused Sparrow's eyes to dilate to their fullest, and her pulse is threatening to tear the papery skin of her throat. The tracery of faint blue veins is just visible, almost throbbing with her well-disguised terror.

If I wasn't about to kill her myself, she might be in danger of heart failure.

I pull the plunger on the syringe to check I've hit a vein, then slowly begin to depress it. Sparrow blinks once, twice, as Winter's voice solemnly narrates her life and passing.

At the thought of Winter, my heart clenches in my chest. If what Sparrow said was true, he's been following me for a full two weeks before my father was notified of his selection. I can't help but wonder if it's already too late, if they already know what I'm trying to do.

Sparrow's grip on my hand softens briefly. The delicate skin on her chest pulls taut as she heaves a breath. The facial software picks out in intimate details as each muscle in her face eases.

With one hand, I manage to fix the earpieces of the supplied stethoscope to my ears and place the chest piece over her heart.

Its beats are soft and sluggish, signalling the approaching end until eventually no beat replaces the last.

C. ROPER, 2064037 Flinders University PhD Candidate Winter's voice filters back in, '... The city thanks you for your contribution. Esteemed guests, Sparrow Roberts.'

Someone in the audience begins to wail.

Chapter Three

Once we've passed Sparrow's body off to the crematorium workers, Winter turns to me again. I still cannot bring myself to bare my eyes to him, so my goggles remain a barrier between us. They pick out in cruel precision the smile he's struggling to restrain and the lettuce in his teeth.

He tutts at me, wagging a finger in mock reproach. 'You know what the rumour going around about you is?' He asks.

Every hair on my body rises as shock and fear grips me.

'No,' I say casually. 'Should I?'

'Oh, I don't know,' he drawls, taunting me. 'Depends how important your job is to you.' He can't help himself now and is grinning widely, lettuce on proud display.

'Oh, come on,' he says when I don't rise to the bait. 'We all do it at some point; I just never expected it from you. Getting involved with a client's kid? You surprise me.'

Fear drains to puzzlement. 'All of Sparrow's relatives hate me.'

Winter rolls his eyes. 'Not them, you idiot.'

Suddenly I remember Art's number in my pocket at home. It's the only thing he could be referencing. How could he know so soon?

'I don't know what you're talking about,' I say coldly, and leave before he has a chance to reply.

When I get home, it's all I can do to slink into the shower. Not even Hooch's wagging tail, thumping me in the back of the legs, can make me smile. I take a serviette of stolen popcorn chicken out of my pocket for him and place it in his bowl, to his delight. Leaving my uniform more or less folded I sit on the floor of the shower cubicle and let the steaming antibacterial spray soak into my skin. Even though I

washed off the night's stink this morning, I always like to do it again after the weekly euthanasia. It makes it feel as if I'm closing a chapter by taking time out of my day.

As the liquid runs over my scalp and down my back, I make the decision to throw away Art's number. If Winter has been following me for a full month already, then I can't involve anyone else; I won't have any more death on my hands.

Loitering in the spray for the sake of something to do, my comms chime with a new message. Wiping the droplets from the screen, I see it's a number I don't recognise – Hey, I found your address. Are you home? I'll be over in about five minutes. I think I've worked something out.

I can only assume it's Art. Getting out of the shower and stumbling into the cleanest-smelling clothes, I survey my tiny one room apartment, awash with dirty laundry and the aroma of dog. Hooch himself is sprawled on his back in my bed. Faint snores reached my ears and his massive paws twitch with a dream.

Before I can reply and say I'm busy, there's a knock at the door. Hooch surges to his feet, crossing the space from the bed to the door in one huge bound. He doesn't bark though, he knows not to.

'It's me,' calls a voice. 'Open up.'

Cracking the door slightly, all I manage is a dumb expression. Hooch thrusts his snout against the space and inhales an inspection.

'Ah... Hey. Um, just letting you know it's a mess in here and I have a dog.'

Art's face lights up. 'I've never seen a dog in person before!'

I sigh; looks like I can't avoid this. 'Hooch, get back,' I hiss, nudging him with my foot. He inhales, long and hard, then backs away, planting his rump on my other side.

Sweeping open the door with a grand gesture, I beckon Art inside. 'Welcome, welcome, don't mind the mess, the housekeeper hasn't been this week,' I joke.

Art bustles in, a bag in one hand. The breeze he brings is tainted with smoke and I rush to close the door on the cloying odour. 'None of your records said you had a housekeeper,' Art begins. 'Whoa, what the fuck is that?'

'He's a dog,' I say bemused. 'Remember about three seconds ago, I said I had one?' Hooch tilts his head to one side, he knows he's being talked about. His pink and black nose inches toward the bag in Art's hand.

'Are you kidding me? That's a real dog? It's enormous.' Art stretches his hand out, but snatches it back when Hooch goes to sniff it.

'Him, yes, he's enormous. His name is Hooch.'

'Does it, he, bite?'

'Oh, yeah,' I confirm, lifting Hooch's lip to show his glossy white canines.

'Toys, old shoes, the occasional rawhide bone for a treat; he also shakes hands.'

Hooch flicks his eyes to me and lifts one paw in the air at the perceived command.

'Come on, Art,' I grin. 'Don't leave him hanging.'

Cringing, Art extends his open hand and manages not to flinch as Hooch plants his coarse paw in his palm.

'Good boy,' I grin. 'Listen, about all this,' my smile fades. 'I don't think I can involve you anymore. If you want to continue trying to save Vincent, I won't turn you in, but I... they've, they were already following me two weeks before my dad got told he'd been selected. A Sergeant from work called Winter has been tailing me for four weeks, apparently. It's not safe for you to be involved with me in all this.' Art inspects his hand. 'It's fine,' he smiles up at me. 'I understand the risks. Besides, I did all this work last night, it would be a shame if I didn't at least get to show you.'

He brushes his palm off against his pant leg and moves to my over-crowded bench. I can feel my face colouring with embarrassment as I sweep confidential papers into a pile and dump mouldy Nutri-Soups into the garbage disposal.

From the bag, Artemis pulls an untidy bundle of wires, plastic casings, loose tools and his magnifying goggles.

'I also picked up some subs, I assumed you'd be hungry,' he says, placing two soft paper-wrapped slabs on the bench.

'Oh,' I say. 'Thank you.'

He dismisses me with a wave of his hand. 'They're nothing special.'

Inside the paper is a soft roll stuffed with salads and what smells like cheese and garlic metwurst.

'This is nothing special to you?' I ask.

'Well, I did some work for a guy who owns a deli a few years back, got him out of a bit of trouble. Now he treats me to a sandwich every couple weeks or so to say thanks. I just – what, you don't like it?' he's paused and seen my sour face. 'I'm sorry, is it the meat? I just assumed you liked meat.'

'No, I love meat. It's the olives.' I pull an expression again.

Art rolls his eyes. 'They're good for you.'

Something black and pink the size of dinner spoon appears at the edge of the bench and snuffles back and forth between my elbow and Art's.

'Can I give him a little piece?' Art asks.

'You'd have to, unless you want him sulking,' I smile.

C. ROPER, 2064037 Flinders University PhD Candidate The teeth just below the black and pink nose delicately accept a piece of cheese. Underneath the bench, they are also surreptitiously accepting olives.

'So,' I mumble as a distraction. 'What are you building?'

'Re-trans stations. I've set up a small UHF radio transmitter at my house, but the range is too small to reach here. So I've repurposed several re-transmitter stations to help it reach here and my sister Ana's place and anywhere else we need it to. The problem is, we need to set them up as high as we can to help get a clear signal and I need to modify your communications wristband a little bit to be able to receive the signal without your department being notified.'

Chewing thoughtfully, I consider Art's words as Hooch's chops smack noisily under the bench. He seems to really like cheese.

'Isn't UHF what the Military Police use for communications?' I ask.

Art dismisses me with another wave. 'We have to go low-tech and this is the best way. If we stick to minimal use, we'll be okay. I'll change the frequency periodically and I can destroy the re-trans stations remotely if it looks risky.'

'What about my comms? What if you call me on the UHF channel and someone overhears?'

He nods. 'I've thought about that. You, Ana and me will each get an alert if the station is activated. To begin receiving communications, you'll have to confirm by connecting an ear piece.'

I sigh. 'I don't know, Art,' I scrub a hand over my head, only realizing after the fact that I've smeared mayonnaise in its wake. 'There are just so many risks and I have no idea how any of it works.'

'It's okay,' he says, dusting crumbs off his hands. 'I know what I'm doing. We know we have to take risks and we'll take it slow and set up fail-safes.' He smiles warmly at me and I choke on the bite I've just swallowed. He thumps me on the back, his smile turning to a grin.

'By the way, don't feed Hooch too many olives, I read that dogs aren't meant to eat them.' He laughs as my face reddens.

Standing, I rewrap the other half of my sandwich, stowing it away in the fridge to disguise my embarrassment. Dusting my hands, I turn to him.

'What do you need to do to my comms?'

He paws through the pile of tools, selecting a tiny screwdriver. 'If you can take them off, I'll just have to upload an old program I modified and put in the receiver.'

I shake my head. 'I can't take them off.'

'What, like right now? Or after-hours, or ever?'

'Ever,' I say. 'Not until I terminate my last client and resign. It's to prevent this exact sort of thing. Removing it constitutes a breach of contract. I lose my job and probably my hand, too, if the rumours are true.'

'Oh,' he says, and begins to rifle through the tangle of wires again. 'Not a problem, I brought this.' He holds up a small device with two wires coming off it.

He connects the device to two of the ports on my comms and carefully undoes four tiny screws to remove the faceplate. Hooking his magnifying goggles over his ears, his eyes become two massive black orbs in his face.

For the next few minutes, I have no idea what he's doing as he plays with a menu that appears when he holds down two points on the screen for a few seconds.

'Alright,' he murmurs, as if to himself rather than me. His breath on my fingertips makes me shiver. He gently rotates my wrist and begins unpuzzling the complex mechanism that holds the band closed.

'Whoa, what are you doing?' I jerk away. 'I told you-'

'Trust me,' he says. His eyes, magnified beyond recognition, are unreadable.

'I've negated the sensors; it won't even know it's undone. I'll hold my fingers against the temperature sensors and I'll be done in about two minutes.'

My first instinct is to say no, it's too risky. Then it occurs to me – everything we're doing is risky. If Winter has been following me for the last four weeks, then Art even being here is a risk as well. Finally, I nod.

The skin of my wrist is paler than the rest of my arm, soft and slightly wrinkled from my shower. Art's fingers slip under the back and firmly press against the sensors of the comms. I'm vaguely embarrassed by the accumulated dirt and dead skin settled into the lines of my wrist as I pull my arm against my chest, flexing and stretching out fifteen years of constraint. Art releases a breath I didn't realise he was holding.

'Alright,' he says, more to himself than to me. He wipes his forehead on his sleeve, fingers still pressed against the sensors, and connects the two wires of the device he produced earlier.

Hooch rests his bony jaw on my thigh and watches with silent fascination. His silky fur – brown, white and black – slips easily through my fingers as I gently smooth his ears. His nose snuffles at the uncomfortable dampness and odour of my wrist and before I know it, Art's machine has beeped. Art wipes his forehead again, his fingers beginning to lighten with the pressure he's placing on the sensors. With one hand he deftly disconnects the two wires and with a few simple motions, he's committed a felony.

'Nothing has exploded,' I joke. 'That's got to be a good sign, right?'

'Not necessarily,' Art says. He guides my wrist back into my comms. 'It could have a silent alarm, a monitoring program, a Trojan or any number of things. I'll analyse what I pulled, but there's only so much I could touch without detection.'

'Oh,' I say.

Art is seemingly lost in thought as he tightens the screws and replaces the faceplate, a frown piercing his brows. With a short whir from his electric screwdriver, the reassemble is complete, but his fingers linger at the tender space between the edge of my comms and the base of my palm.

His eyes won't meet mine.

'Are we doing the right thing?' he asks quietly. I open my mouth to interject but he stops me. 'I know, objectively, stopping forced euthanasia is a good thing, but doing it underhanded like this? Isn't it selfish to only try to stop it when it affects us?'

'Yes,' I say. 'It is selfish. We, or at least I, should have tried to stop it sooner but dwelling on it doesn't change the fact that we didn't. As for underhandedness...' My fingers tease at a tangle in Hooch's fur. 'I don't really have an answer for that. You've heard the rumours. People who oppose it often find themselves or their families selected soon after.' My heart squeezes at the risk Sparrow took, endangering her family. 'Riots, petitions, letters to the government have brought no change because, realistically, we need the population control.'

Art gives me a sad smile. 'And for that to work, people need to die.'

We sit in contemplation, the electric hum of the air conditioner is the only sound between us. Art heaves a sigh that belies his young age. The morose mood is broken by Hooch heaving an even bigger sigh in response. I cannot help but laugh. Art grins and rolls his eyes as Hooch crosses the short space to my bed and flops dramatically into the dishevelled mess. Art's smile fades. 'What do we do about that Winter guy?'

I open my mouth but end up just shaking my head – I don't know.

'It's not even really safe to be here, is it?' he asks.

'No,' I say. 'We need to distance ourselves from each other when in view of the public, you can't risk them coming after your family.' My heart squeezes again at the reminder of Sparrow and the huge risk she took just because I showed her a little kindness and compassion. Art's voice brings me back to the present.

'Other than Ana, I have no one left; maybe it's better this way. When, I mean, if my father is euthanised, I have nothing left to lose. Ana and I are Gen One, probably as close to untouchable as you can be without credits or power.'

'As long as neither of you are meltdowns,' I say, only half-joking. Art gets a strange contemplative look when I say this. I don't want to mention my mother's wealth makes her almost untouchable.

His mouth twists. 'How often do clients find where you live?'

I shrug. 'It happens sometimes. I get followed home or some smart ass somehow pulls my information.'

Art grins. 'Who would do something so illegal? Anyway, people sometimes find you, and...?'

'And beg and plead or try to bargain with me if I'll just let them or their family go, or even threaten me if they're stupid or desperate.'

'Do I look stupid or desperate to you?' He smiles.

Art's clothes are old and worn but clean. His hair is a dishevelled mop framing his face and tangling almost to his elbows. His eyes are slightly red from the tears I pretended not to notice when he asked if we were doing the right thing. Red enough that EEO goggles could pick it up at a distance. 'No comment,' I tease.

Art rolls his eyes again. 'Will Hooch attack if I start yelling and throwing things?'

Realisation dawns. 'Not if he's locked in the apartment.'

Art nods thoughtfully. He takes a deep breath and stands. 'I'll have the retrans stations finished within a week and Ana is working out where to put them, based on buildings she has access to.'

I nod; I feel so useless in comparison.

Art stands to one side of the door, my hand reaching behind him, prepared to fling it open.

'Ready?' I ask. This close, he smells like soft bread, coffee and the lingering scent of the antibacterial shower. He somehow even makes the smell of olives seem desirable.

He nods and smiles, seeming to search for something in my eyes.

I plant a hand on his chest and with one motion rip open and door and shove him out.

'You fucking murderer!' he screams as he stumbles out. I falter in the face of his vehemence, nipping the door closed behind me.

'He's just an old man, he's never hurt anyone in his life!' Art continues.

'I...' I blink and pretend to check my comms. 'Pursuant to Section 27 of the Population Cont-'

'Don't give me this shit!' Art yells, thumping the heels of his fists against my chest. 'He's my father, not some number or target or a means to someone else's problem.'

'Sir, I must advise you against striking a Euthanasia Encouragement Office,' I warn. Out of the corner of my eye, I can see the security cameras of other residents blink to life and swivel to catch our encounter. I can feel my face reddening; I wish I'd thought to wear my goggles.

'He's just an old man who can barely walk. Please,' Art begs. 'Please, you don't have to do this.' The air is unbearably smoky out here; somewhere, something is burning.

'You have one minute to leave the vicinity before you and your father are reported as flight risks and assigned to the accelerated euthanasia program.' These words may be part of my protocol, but I've never said them before. In fact, I don't think I've ever-

The crack of Art's palm to my cheek is a shock. My mouth drops and my fingers reach to soothe the sting as Artemis begin to cry.

'Fuck you,' he hisses.

He's gone before I can respond.

Uncomfortable under the gaze of all those anonymous lenses, I slink back into my apartment to press my cheek into Hooch's cool nose and unconditional love.

I curl into bed, Hooch's bony frame and deep chest in my arms. My eyes and nose are streaming, but it's the smoke, not the confrontation making me weep.

Sometime later, the vibrations of my comms wake me; it's barely 4 AM. There's an emergency at the closest euthanasia clinic. It's cold, bitterly cold. I dress in an exhausted haze, tugging on only the essentials. The sun will rise before I return and I don't want to lug a whole bunch of shit home.

'Hoochy-boy,' I slap his rump. 'D'you need to go outside before I leave?'

Hooch grumbles long and low, curling into a tighter bundle. I cover him with a blanket and head to the door, patting my pockets to check I have everything I need.

Outside, my door has been vandalized. Food is too precious to waste by smearing it on people's doors like this. Along with the smell, the nature of the substance is obvious. I'm not going to request security footage, not for this. As I descend to street level, I tap in the cleaning request; it'll be done by the time I get home.

At street level, the unmarked officer car is waiting. A snub-nosed black vehicle, it's only for non-funereal emergency use. The nearest clinic is a five-minute drive away, attached to a hospital. The car lets me out near the flashing orange and violet lights of the combined emergency/euthanasia vehicles. At my approach, my comms buzz with the receipt of new instructions, directions to a room and the name of one of my clients: Sol Santiago.

Inside the named room, Sol is in a bad way and the smell of disinfectant is barely covering the smell of blood and burnt skin. His husband, Francesco, is barely visible in the swarm of medical staff poking and prodding at machines that loom over an unconscious Sol.

One med student gently taps the file against the side of my goggles and the report overlays the scene in front of me. Sol Santiago, age 117, due for euthanasia in eight months. Selected on the basis of an early diagnosis of dementia but not yet exhibiting signs. Critically struck in the head during a factory accident in an explosion in the Tyson District last night. Medical status: brain dead.

Francesco looks up at me and his face takes my breath away. Rivulets of tears glimmer in the grooves of his few wrinkles and his expression is completely filled with despair.

'They tell me there's nothing they can do,' he says, his voice like shattered concrete. One of Sol's hands is limp in both of Francesco's.

'I'm sorry, Frank,' I say, placing my hand on his shoulder. Tears continue to stream slowly from Frank's eyes, soaking into his shirtfront like morbid blooming flowers.

'They won't tell me what happens from here,' he says, his gaze returning to Sol's lax features.

'That's,' I pause to clear my throat. 'That's right. That's why I'm here. Unfortunately you have some decisions to make.'

Fresh tears well up in Frank's eyes. 'I don't want to make any decisions,' he says. His voice is so small and scared. 'I just want Sol back. I'm meant to have eight more months with him.' He tries vainly to interlock Sol's limp fingers with his own.

I take the chair another med student brings me. This student is a Gen One baby, her eyes filled with sorrow. There isn't anything I can say right now and so we sit in a silence broken only by the beeping of the machines and Frank's occasional gasps and sniffles. Frank himself has not escaped injury; his clothes and skin are blackened with ash and bandages adorn one arm and one side of his face, working to reverse the damage of burns. I switch on the news-feed for my comms, the scrolling banner giving short facts about the devastating explosion. It's the second in three days. Over two thousand people died in the first, over a thousand in the second. What the fuck is happening? With a start, I realise the first explosion was the one my father and I saw in the distance when I first went to meet Vincent Wynne. My attention is drawn back to Frank as he begins to cry, the heavier flow of tears washing away the ash on his cheeks. Frank presses Sol's limp knuckles against his lips, whispering his name over and over, eyes squeezed shut with the pain of loss. He gently kisses Sol's palm, breathing in the scent of the man to whom he had been married for over fifty-five years. He rocks back and forth in his chair as tears force themselves out between his closed lids.

'Oh, Sol,' he chokes. 'Don't leave me. How am I meant to live without you?' Frank coughs, black phlegm staining his lips, and turns red eyes to me. 'I'm sorry, I'll – I'll try to get it together, now.' Fresh sobs burst from his sealed lips.

I push my goggles up onto my forehead to wipe away my own tears and shake my head. 'Take your time, Frank.'

The buzz of my comms draws my attention; it's a message from Art. I can't help but wonder when he sleeps.

I stand and rest my palm on Frank's shoulder. 'I'll get you a hot drink.'

There was a vending machine on the way into the building, I remember, and I open Art's message as I navigate towards it. *Ana says we have to move faster*, it reads. *I've finished three retrans stations. She has a plan, when can you meet her?*

I'm distracted from replying by the prices displayed on the vending machine.

'A hundred and twenty credits for a cup of tea!' I swear. Grumbling, I punched in the numbers for two teas, one with a mild soporific. I shoot back a quick reply to Art - At an emergency, should be done with work and Hooch by six tonight.

His reply is almost instantaneous, a simple confirmation that she will meet me out the front of my apartment building by six.

Back in the hospital room, Frank is still weeping. He accepts the tea with thanks and raises it to his lips with a single shaking hand. The other remains steadfastly in Sol's fingers. For a few minutes, we drink in silence. As the soporific takes effect, Frank's weeping begins to slow. He is left a defeated shell, slumped in his chair, though he maintains his link with Sol. He turns tired eyes to me and nods his head; he is ready.

'I'm so sorry for everything you're going through,' I begin, surprised at the huskiness of my voice. I clear my throat and continue. 'Unfortunately, we have a few things to address with Sol's passing.'

Frank nods dully.

'As you know, organ donation is purely opt-out. I am aware of Sol's wishes before his death, however, as his next of kin, it is your choice if you wish for him to donate his organs or not.'

Tears stream silently down Frank's face. 'Sol is, was, a giving man. I can't imagine he would ever choose to opt-out.'

I tap in and send the permission form. 'Thank you, Frank. Luckily, Sol's Will is complete. As you are the sole beneficiary, the process will be very simple.'

'I don't want his things,' Frank says.

'I – what? Pardon?'

'I want you to euthanise me.'

'Oh, Frank. Unfortunately, it isn't that simple.'

'Please,' his voice cracks. 'I'm going to be selected sooner or later. I've just lost Sol. Euthanise me today, now.'

'Frank, I- I'm sorry, I can't, there are protocols and regulations.'

'I don't care,' he whispers. He closes his eyes and turns his head, tears seeping unbidden down his face.

I scrub a hand over my face. 'I can put you on the accelerated program but even then it will take six weeks.'

C. ROPER, 2064037 Flinders University PhD Candidate 'It has to be today,' he says. 'I can't live without him.'

My fists seem to clench in my lap involuntarily. 'I can't. I'm so sorry. I can't.'

'Then what good are you?' he says without emotion. 'You come into our lives and tell us Sol has to die when he doesn't want to. Now I'm telling you I want to die and you tell me I can't. Either you kill me or I do it myself.'

'I'm sorry,' I repeat lamely. I stand and finish my tea, throwing the rubbish into the recycling receptacle. I pull my goggles back down over my face to hide my tears. 'I am mandated by law to report you as a suicide risk. You will be taken into protective custody.'

Tapping in the report and the request for the car, I hope no one can see the tears oozing out the bottom of my goggles as I stride through the hospital. Letting Frank kill himself would bring too much scrutiny onto me and my other clients.

His words continue to ring through my head, *what good are you, what good are you*, he asks and I can't help but agree. Fuck, I hate myself.

The next twelve hours of the day pass in a black mood. Not one of my nine scheduled clients for today are voluntary; though some appreciate my usual care and concern, they all resent me for being the one who will take away their family member or friend for a death they don't want to die. I wish I could work purely with those who want to die. Euthanasia brings so much peace and dignity to the terminally ill and their families, but I hate that it is used it as population control. The only light in my day is Hooch. The way he dances, the way his tail thumps, the way he smiles when I drag out his leash. It's barely four in the afternoon and the sun is beating down, but I'm determined to give Hooch a good walk before I go and obliterate my memories of today with the cheapest liquor I can find.

Chapter Four

When I wake, I'm wrapped around a gently snoring body, my face pressed into soft tresses of hair. I groan and try to quietly disentangle myself.

'You've finished spooning your pet then, have you?' A vaguely familiar voice comes from nearby. Squinting, the neon lights streaming through the window highlight hair the colour of ginger and honey and a muscular body.

'Big Red?' I croak. 'What are you doing in my apartment?'

She reaches back and flicks on the main light, temporarily blinding me and sending horrific pain shooting through my skull. When I can see again, the body I'm embracing turns out to be Hooch.

'Fuck,' I moan. 'Why would you do that?'

'Because I'm a bad person. You don't remember what happened?'

'Pretty sure that was my intention, judging by the way my head feels.'

Red pulls a bottle of water out of a backpack next to her chair.

'I'd throw this to you,' she says, passing it over Hooch's inquisitive nose. 'But

I'm afraid you'd fail to catch it and it would hit this nice fellow.'

Hooch's thumping tail beats my legs at the friendly tone in Red's voice.

'This nice fellow is Hooch, he's meant to be a vicious guard dog.'

She holds out her hand in a gallant manner. 'Nice to meet you, Hooch – Oh!'

Red grins as Hooch plants his massive paw in her palm.

'Anyway,' she says, smile fading. 'You don't remember?'

'Should I?' I ask, after draining half the bottle of water.

She gives me an odd look. 'You really don't know?'

'Know what!' I cry in exasperation.

Red studies me for a moment. Hooch wiggles in my arms, trying to get his nose near my horrific breath. I'm pretty sure I've vomited at some point. From next to her chair, Red pulls up my goggles. They're bio-linked exclusively to me, so I'm not particularly concerned at her touching them.

'Put these on,' she says.

I settle them onto my pounding head, squinting as the info-overlay hums to life and presents a square and identity around Red's face.

'Oh, fuck, no,' I swear and rip the goggles off, letting them fall to the floor. 'Please tell me this is a joke.' With the info-overlay to remind me, I suddenly remember I was meant to meet Art's sister Ana outside my apartment building at 6 PM. Ana, short for Diana, a labourer by occupation.

'It's no joke,' she says drily. 'Swear to me you didn't know.'

'I promise you I had no idea. I almost never wear my goggles when I leave the house and I only got assigned to your father three days ago.'

'You only met me three days ago as well.'

'How is it possible to meet two people from the same family in a city of over a hundred million on the same day?' I scrub my hand over my scalp. 'I am too hungover for this. Please tell me you're just a horrible figment of my imagination.'

Red, Ana, grins. 'I'm horrible, but definitely real.'

'Did you know? About who I was?'

She shakes her head. 'I didn't know that night in the bar. I spoke with Art the next day, when he told me our father had been selected. He told me about you, about the opportunity you gave us, about his impressions of you.'

'Did you tell him? About, about -'

'No. And I think it would be easier if you didn't tell him either.'

I nod in agreement, my thoughts far away. 'What time is it anyway?'

'It's about midnight. I found you just before six, face down in a garbage can. You were hurling your guts up. You were completely incomprehensible so I dragged you up here and waited.'

'What did Hooch do when you brought me in?'

Ana smiles. 'He was full of concern. I managed to put you in bed after tripping over all your shit on the floor and he climbed in and inspected you all over, then settled in next to you. I didn't know where your dog food is, so I ran out and grabbed a tin, but he hasn't touched it yet.'

'Oh.' I clear my throat. 'Thank you,' I manage, gruffly.

'I also spoke with Art,' she says, voice turning hard. 'I'm not impressed you missed our appointment to distribute the retrans stations. He forgives you, because he's like that, but you need to get your shit together if you're going to make a lick of difference when it comes to saving my father, let alone your own.'

I lower my eyes, feeling shame colour my cheeks.

'Anyway,' Ana says, clapping her hands emphatically. 'Get up. I'll order some food. You go have a shower, you smell like shit.'

'Thanks,' I mutter. 'I try so hard to smell like shit. Also, it's midnight.'

Ana reefs the blankets off of me and I shiver in the freezing night air. I can see I must have vomited on myself at some point as someone, possibly Ana, has changed my clothes. After I struggle out of the bed, Hooch immediately wriggles into the warm space I vacated.

The jet of the shower is wonderful on my pounding head and the antibacterial spray is more than enough to strip the scent of alcohol from my pores. Just after I switch off the spray, I hear the chime and hiss of the service chute as the food arrives.

Back in the main room of my tiny apartment, Ana has kicked all of the discarded clothes and files that decorated the floor into one corner so that she may lay out three boxes the size of my palm and four steaming containers.

As I go to take a seat, she stops me. 'Nuh uh, you need to wear your uniform.'

'Are we seriously doing the retrans stations tonight?' At her hard glare, I reevaluate my tactic. 'I mean, yes, we're doing them, but I assume Art told you about Winter? I'll stick out like a sore thumb if I leave in my uniform.'

'Winter knocked off after he saw you were, ah, incapacitated.'

'Okay, but what if I spill food on my uniform?'

Ana rolls her eyes. 'Fine, change after eating, but hurry up. You've already cost us more than six hours.' She thrusts a paper plate at me. 'I'm sure you know how to use a serving utensil. Don't be shy.'

The four containers in front of me hold an aromatic assortment of dishes that are pure bliss hitting my belly. At the first mouthful, it's all I can do to listen to Ana as she speaks, gesturing to the first of the three boxes with a fork that leaves rice in its wake.

'Do you know the big school being built over in the Nye District? We'll be doing that one last as I have access to the building for at least another eighteen months. Also it's the furthest away.' She shovels a forkful of what I think is a pumpkin and lentil curry into her mouth and stabs at the next box. An orange gob lands on its upper face.

'This one will be going to a vertical farm North of here. It's between your place and mine and I have access for another six months.'

I nod; the feeling of hot food in my stomach is unbelievably satisfying.

'This one we'll be doing first,' Ana says, tapping the final box with the handle of the spoon she used to scoop the liquid of a green curry. She licks the spoon before dropping it back into the container. 'This is going to a deli in the Blumenthal District, just over from Art and my father's house. The owner took a little convincing to give me temporary access to his shop, but let's just say I can be very convincing when I want to be.' Ana grins.

'Why do I need to wear my uniform?' I ask.

'For cover,' she answers. 'You be the EEO and I'll be the runaway meltdown being escorted for termination.'

'That's... Awful. And it will probably work.' I shake my head. 'Just awful.'

Ana licks the spoon she's holding, and then rapidly begins scooping the remnants of each container into one. She snatches my half-empty plate from my hands, plucks my spoon from my mouth then flaps at me menacingly. 'Go,' she says. 'Get dressed. You have two minutes before I steal your uniform and do this all myself.'

I get to my feet slowly, my tender head throbbing at the change of altitude. 'It won't fit you,' I grumble. 'We might be around the same height but that's where the similarities stop.'

Down on the flat, I'm glad I wore my full uniform. Not only does the hood keep my scalp and neck warm, it also makes me a little harder to recognise. Shivers wrack my torso as Ana plans our route on her handheld comms. My hands shake as I try to light a cigarette.

She glances at me. 'You'll warm up once we're walking,' she says.

Ana strides briskly down a series of alleys and through several minor construction sites. Some are building repairs, some are upgrades, and some are demolitions. Soon, the streets around me begin to look familiar as we emerge into the area surrounding Vincent and Art's apartment complex. Several streets beyond this is a multi-storied shopping complex topped with further apartments. At the back of the building, Ana checks her comms briefly, then stops at a delivery door that looks identical to the rows of doors flanking either side. She pulls an ID card from her pocket, taps it on the reader and pushes open the door as it clicks. Inside, she punches a security code into the alarm system, and then waves me inside, softly latching the door behind me.

The building is an overload of food scents: some pleasant, like the earthy garlic and aromatic rosemary, some less so like the scent of raw meat and bitter olives. Judging by the way Ana strides through the dim space, she has, evidently, been here before. Tentatively, I follow her behind the spotless steel counter.

'What are you doing?' she hisses. 'Get back and keep watch for anyone approaching.'

As I turn around, the metal zipper of my coat swipes the edge of the countertop, making a rasping zing. Ana makes a sound that clearly communicates her disgust at my incompetence.

'There are thirty levels of apartments above this shop,' she breathes. Somehow, she manages to inject frustration and patronization into her breath. 'Keep it quiet. No! Don't open the delivery door, just be near it and listen out!'

'Yes, mother,' I mutter, stung. 'It's not like I've broken into a building to set up an illegal communication network before. I'm kind of new to this.'

Ana shushes me. Working quickly, she disassembles the service hatch for the shop's refrigeration, activates Art's first retrans station and tucks it into the wall cavity. She replaces the hatch, resettles her tools in her backpack and turns to me.

'Please tell me you didn't watch me the entire time. You're meant to be watching the door,' she whispers.

'Are you even kidding me?' I hiss back. 'I'm not allowed to look out the door, not allowed to watch you. What am I even here for?'

'Cover,' she says. She reactivates the alarm, nips the door closed behind us and pulls her hood up over her head. 'Come on. It's a bit of a hike to the vertical farm.'

In a little under an hour, we reach the vertical farm and I regret wearing my full uniform. Though it may be freezing temperatures, the brisk walk has caused me to sweat, leaving my face, hands and feet cold and my torso feeling like the Cremation Chambers.

Ana waves me to a small side door, away from the truck entrances. She swipes her ID again and the door slides open with a hiss. Inside, the air is almost cloying; a thick, humid scent almost drowns me.

'What is that smell?' I gasp. It's rich, neither pleasant nor unpleasant but somehow vaguely familiar.

'It's soil. You know, dirt.' Ana says. She cocks her head to one side quizzically. 'You haven't smelled soil before?'

'Not for a long time and not in this quantity,' I manage. 'My father had a farm, but it was turned into housing when I was less than five.'

She makes a thoughtful noise. 'I guess the only people who would be familiar with it are the really old, the current vertical farm workers and the construction workers like me.' She shakes her head. 'The idea is alien to me. Come on, we're going to try and go as high as we can this time. There are separate power grids for every five floors. I'm thinking we'll try the fifteenth floor.' Ana leads the way to the service stair well. 'I'm going to go first, I'll message you when I'm seven floors up.'

'I don't like it,' I murmur.

'You don't have to like it, you just have to do it.' She slaps the cigarette I've put in my mouth out of my lips. 'Don't smoke. The smell and the glow will give you away.' She glares for emphasis.

I try and tuck myself out of sight as I wait for Ana's signal. Two minutes pass, then three. At five minutes, I know something has gone wrong. I straighten my uniform, equip my goggles and pull out my weapon with the mounted flashlight. I've not once ever had to pull it out before, let alone use it, but it definitely looks intimidating. Protocol dictates that an attending EEO be prepared to use lethal force against meltdowns and I need to play the part.

My steps echo up the stairwell as I climb its metal treads. I take them at a moderate pace, trying to appear calm and in control. At the fifth floor, I can hear faint voices floating down to me and I quicken my pace slightly. Just on the lighted landing on the seventh floor, Ana has been cornered by a night guard. Her features are slack, spittle flecks her lips and her hair has fallen untidily in front of her face. At the approach of my footsteps, the guard turns around. My goggles fill in the data I'm looking for: Helix Fernandez, a 132-year-old night guard with six weeks until his termination and a ring through each side of his lower lip. Over his shoulder, Ana's features snap together and she rolls her eyes in an expression that clearly conveys frustration.

'I see you found my meltdown,' I say, keeping my weapon trained on the ground. I switch off the flashlight but keep it casually in hand.

Helix the guard leers at me unpleasantly. 'Your meltdown?' He asks.

'Well, mine for the next couple of hours until I can get her to the clinic,' I say.

'After that, well...' I mime pumping a needle into the crook of my elbow.

He glances back to Ana's slack features. 'How much?' he asks.

'Sorry?'

'How much to make your meltdown... my meltdown, for the next hour?'

I try to laugh, but the echoes of the stairwell throw the sound back weak and thin. 'You don't want this one, trust me,' I say. 'She clean bit a man's nose off a couple of days ago. She's too much trouble.'

'Yeah?' he says. He runs one thumb over the spittle on Ana's lips and I'm impressed that she doesn't bite. 'A feisty girl with a bit of meat on her bones?' He shifts his weight from one foot to the other. 'I've got eight thousand credits, ri-'

The arrival of a second guard interrupts him. 'What's going on here, Helix?' she says. She's a woman of about 95 with pinched features.

I swear internally.

The woman glances at me, and then away quickly as if drawing my attention will spontaneously select her for termination. The goggles again fill in the information: Rhea Clarkson a 96-year-old night guard. Her gaze takes in Ana's unfocussed eyes, backpack and Helix's hand on her wrist.

'The girl is an escaped meltdown,' I say. 'I tracked her here and am attempting to regain custody. Unfortunately, your colleague is being somewhat reticent in relinquishing her.'

The woman takes in how closely Helix is standing to Ana and her nose wrinkles as if he's tracked shit in on his shoes.

'I'm very sorry,' she says politely, avoiding my eyes. 'However, it's necessary for me to check the girl's bag to ensure she's hasn't taken anything from the facility. After that, Helix and I will be happy to escort you off the premises.' She glares at Helix for emphasis. 'How did the two of you get in, anyway?'

My mouth goes dry at the thought of the woman checking Ana's bag, but out of the corner of my eye I see Ana bobbing her head. It may be a nod, it may be a regular meltdown tick. 'I followed her in through a staff door in the alley that was open,' I say. Rhea glares at Helix again; clearly, Helix will be blamed for this. I draw the restraints all officers carry for unwieldy clients. 'If you will?' I say to him.

Helix is clearly not impressed with the turn of events as he roughly spins Ana to face to wall. She makes a noise of displeasure and seemingly accidentally stumbles, placing her not inconsiderable weight on his toes. I make a show of tightly restraining Ana, then turn to the female guard.

'Fucking genetic meltdowns,' Helix hisses.

'If you could hurry it up, I need to get her to the clinic. I'm anticipating a hefty Cremation Bonus for this one.' I grin wolfishly.

My goggles pick up the tremor in Rhea's hands, the pound of pulse in her throat. She kneels and shakily unzips Ana's bag. The top item in the backpack is a teddy bear, nestled on a few shirts and other items of clothing. Rhea paws halfheartedly at the items, but seems to want nothing more than to be as far away from me as possible. She rezips the backpack and hands it to me. I sling it over one shoulder and take the handle of Ana's restraints with one hand. My other still holds my weapon. Helix has slunk off, leaving Rhea to escort us out alone.

Outside, Ana and I maintain the charade for an entire block before I pull her off the street to remove the restraints.

'Well, that was a fucking fail,' she states simply.

'You've still got six months of access,' I shake my head. 'We'll try again in a couple of days or weeks or even months. Are we continuing to the school?'

'No,' she says. 'We'll try that one in a day or two. I'll try and come up with a replacement for the vertical farm location just in case. I'll go meet up with Artemis and let him know which box is active.'

'What do I do?' I ask.

She sighs. 'I'm not sure. Think on it. Once we've got the communication network set up, we can start trying to figure out our plan. Artemis is doing his best with the network. I'm just the legs.'

We stand in silence for a moment. 'So that's it?' I say. 'A couple hours work and we only got one station set up.'

Ana nods. 'Hence why we don't have time to fuck around getting drunk and missing appointments,' she says, but there is no vehemence in her voice.

'I understand. I guess now we play the waiting game. I'll wait to hear from you or Art for the next step.'

She nods again, seemingly lost in thought. 'Can you find your way home from here?' she asks. 'I'm in the other direction.'

'Yeah,' I say. I hand her the backpack and begin walking, wondering how I can contribute more to the situation than simply being a cover story.

A little over an hour and two cigarettes later I arrive home and two things brighten my very early morning.

One is Hooch's smiling face.

The other is Sparrow Robert's Cremation Bonus.

A few short hours later, I have to get up again. My mind tries to make a pithy comment that sleep is a luxury I will have to learn to live without, paired with something about being a rebellious lawbreaker, but I can't quite connect the dots at this hour.

It's early and I've never been a morning person. Hooch, on the other hand, is going stir-crazy being cooped up so much, hence the pre-dawn rising. It's about an hour until sunrise and three hours before my first client of the day and Hooch is almost frantic in telling me that it is time, right now please, to go for a walk. Almost as an after-thought, I tuck my goggles into my jacket pocket.

I reheat a frozen watered down coffee and take it with me while we walk to the MagRail station. On the way, I try to complete some work forms and begin some of the smaller reports and files that can be done on just my comms.

On the MagRail, I tap my fi-card twice for two tickets, manage to find a seat, and settle Hooch between my feet, trying to take up as little room as possible. Even seated, his bony shoulders are well above my knees. During the ride I close out the Roberts and Santiago files and receive two new cases. One will take Sparrow's timeslot in my schedule on Tuesdays and one will take Sol's space on Mondays. Sparrow's replacement is Bran Dubois; I tap his miniaturized face for more information: only 82 years old, recently diagnosed with Motor Neuron Disease. From socioeconomic bracket B and a voluntary euthanasia. I breathe a sigh of relief, glad to finally have another voluntary client. Sol's replacement is Phoebe Lang, a 142-yearold widow and former schoolteacher from socioeconomic bracket D and stable health, if a little old. I accept both cases, as if I have any other choice and ring the bell for the next stop. After a short walk, we're in the wealthy Henderson-Sellers District and almost to Hooch's favourite place in the world: a vertical farm with the ground floor dedicated to dogs. Inside, it is nothing like the farm I visited yesterday. For one, this building is only sixteen stories and everything above the ground floor is sealed off from the public.

There are only three or four other dogs here at this time, the largest being some sort of fluffy breed that would have stood no higher than knee-height on me.

As Hooch revels in thoroughly inspecting dusty gravel, sparse grass and mossy river stones with miniature accompanying creek, a thought occurs to me and I begin to scroll through my active clients. I've been doing this job so long now that I rarely take in the details of each client as part of a bigger picture, instead tailoring my thoughts to each client as an individual.

Hooch is bounding back and forth across the open space, his long powerful legs easily eating the distance. Soon, the smaller dogs have joined the chase. Though they can't match his speed, the scene of a tiny pack of dogs reminiscent of sheep chasing a larger wolf-like animal makes me smile.

Casually, I slip my goggles on and fiddle with my comms as if sharing information between the two. Realistically, I'm trying to be subtle in my attempts to locate Winter. It seems as if everyone around me is aware of where he is except me. I shift, as if the glare from the overhead lights is interfering with my work and turn slightly to face the next window. The information overlay highlights and discards identities rapidly at my direction.

There. Outside, across the street; he's not in uniform. Does he even have clients anymore? He's not wearing his goggles and seems to just be loitering outside

the main entrance to the dog park. I snap a quick picture and attach it to a message to Artemis – *are you free tonight? I have an idea*.

Hooch suddenly reappears, collapsing at my feet panting slightly. He rolls onto his back but before I can rub his belly he is swamped in little fluffy dogs. Art's affirmative answer comes in as Hooch leads the little dogs on a chase up the delicate creek. Their owners, or, rather, the people who work for their owners, are all seated on the far side of the park engrossed in their handheld comms.

I send another message to my mother, warning her she will have visitors this evening, and then send Art the address and the instructions to be there at five o'clock. Both of their replies are almost instantaneous and I let each know I'll be there at six. I don't really want to involve my mother in this whole business, but her office is secure and as far as we know, I'm the only one being followed. If Artemis arrives independently, no one should know we're meeting.

Hooch's arrival makes me laugh. From the shins down, his fur is sodden with slightly muddy water and sticks and leaves cling to him. The little dogs haven't fared so well. With a much lower ground clearance, their white fur is stained brown from the chest down.

'Hoochy, you naughty boy, you're going to get me in trouble,' I whisper, trying hard to hold back a smile.

Hooch and his entourage wag their tails, dancing for the treats they know I have in my pocket. I pull out the meagre handful of dog biscuits and break one into four pieces. Hooch gets a whole biscuit and the little dogs each get a sliver. I know I shouldn't but the biscuits are basically just meat-flavoured sawdust.

I dust my palms and show them my empty hands. 'No more,' I tell them.

Re-clipping Hooch to his leash, we begin the walk back to the train station.

The journey is one spent is silent contemplation, from the train ride, to stopping at a vending machine for cigarettes, to the long walk back upstairs to our apartment. Inside, Hooch must remain on leash so that I can wrestle him into the bathroom to get the worst of the mud off his legs. He lies on a dry towel on my bed with a look of betrayal as I dress for the day, perking up only as I give him the last dog biscuit before I leave.

By the end of the day, I'm glad I managed to pick up a new pack of cigarettes in the morning. From Mr Laute who wishes to cut his only daughter from his Will unless she marries before his termination to Mrs Karlsson who refused to attend the meeting with the lawyers to even write her Will, it has been a long day.

Hooch is overjoyed to be leaving the house for a walk twice in one day and practically sashays during the journey to my mother's office. People part seamlessly around me as I'm still in uniform and have a massive dog tied to my wrist, even if that massive dog is grinning at everyone he meets and wearing blue hiking booties to protect his feet from the searing concrete.

As planned, Art is already in my mother's office when I arrive. Passing by the receptionist girl, she whimpers quietly in her usual terror at such a brutish animal. Whether it's Hooch or me I'm not really sure.

Behind the frosted glass doors, Art and my mother almost have their noses pressed against the schematics for something.

'I'm just saying there's no reason you couldn't use the Peltier effect of the temp-reg chips in SSRI implants to detect chemical production and help regulate mood.' Art argues.

'Inconceivable,' my mother shakes her head. 'The difference of the chemical production would be too minute for the Peltier effect to realistically be worth the trouble. I'll agree that you might be onto something, but – oh, hello sweetness.'

My mother crosses the room and I bend to allow her to kiss my cheek.

'Mother,' I say. 'I see things are going swimmingly.' After releasing Hooch, I dump my goggles, ID, and other pocket-items onto the floating glass table.

'Hello, baby,' my mother says, bending to kiss Hooch between the eyes. 'No, don't lick me, please, I'm clean.' She switches her attention back to me. 'How was work?'

'Work was work,' I shrug.

'Kill anyone?' she asks.

'Not for lack of trying.' I answer.

She sniffs in distaste. 'I'll put the kettle on. Your father will be here soon.'

'Ana's not coming?' I ask Art.

He shakes his head. 'Some of the workers were killed in the Tyson District explosion the night before last, so she's pulling a double shift.'

I groan. 'That was only two days ago? It feels like a lifetime.'

My mother stretches to place the back of one hand against my forehead. 'Are you sleeping enough? Getting enough to eat?' She pinches my cheek and picks up one wrist to feel for my pulse.

'Ma, please!' I say, batting away her hands. 'I'm fine.'

After my mother has made the tea and placed a delicate china plate with shortbread biscuits on the glass table, my father arrives.

'Killed anyone?' he says by way of greeting.

'We've already done that part,' I say.

'Ah,' he says and sips from a scalding mug.

With a start, I realise everyone is looking at me. 'Okay, ah, so I had an idea. Has Art filled you in on the network we're establishing around the city?'

My father nods; my mother flicks at a screen and a map appears. On it, four points are located – the apartments belonging to me, Art and Ana and my mother's office. One red dot surrounded by a transparent red circle sits just off from Art's apartment, the circle not quite reaching any of the three other points. It's the retrans station Ana and I did last night.

'Ana is a hard task-master,' Art says, rubbing his eyes. 'I've finished another two retrans stations so we now have four to distribute. She's located three points and is waiting for one more before she's ready to start getting them set up. She's also trying to install one in the new school she's working at today. After we've covered all our apartments, we'll be able to have voice communication and be able to start monitoring periodically.'

'Okay, so I – wait, monitoring?'

Art nods. 'We can start trying to focus on information in transmission about terminations or selections or anything that might give us a clue about where to start.'

'I thought it was a communication network?'

'Well, yes. But it covers a very wide band of frequency, I should be able to skim other communications. With enough time and retrans stations, we should be able to figure out what band the officer communications are on and then where they're going and coming from.'

'The information will be heavily encrypted,' my mother warns.

'I know,' replies Art. 'But if I can find the band they're transmitted on, I can, over time, work on the encryption from the pattern available.'

My mother seems satisfied with this answer.

My father is less satisfied. 'Time is something we don't have a lot of.'

Art scratches the side of his head in thought, his hair parting briefly to reveal a glowing LED embedded inside his earlobe; I wonder what it does. 'If we can locate which band the transmissions are on, we can triangulate which direction they are heading in. It will cut down the number of stations needed. If we know, for example, that they're going North, we place one due North of it, one North-East and one North-West. If the transmission then pings North-East, we spread again and place one North of that point, one further North-East and one North-West. Repeat until the transmission is no longer repeated and we then have a small area in which we know the transmissions are coming from and going to.'

'Okay,' I say slowly. 'I think I have an idea about that, but that's not why I'm here today. My first idea, before we can work out from where the information and records are coming and going is to try and work out similarities in clients.'

My father nods thoughtfully, scrubbing shortbread crumbs from his moustache with one hand. 'There's always been rumours that the poor are selected more than others, but it's always been argued that there are just simply more poor people than rich. We'd have to work out the percentages, what percentage is selected from each demographic versus what percentage that demographic makes up of the whole.'

'I would usually have fifty clients at any one time, but at the moment I only have forty-five,' I explain. 'My load has been lessened to allow me more time with dad.'

'Is that normal?' Art asks.

'No. Usually immediate family members of officers are exempt from selection, but with the baby boom coming, I guess they had to change the rules.'

As I've been talking, my mother has shifted the plate of biscuits off to one side and activated the screen in the glass table. It takes on a frosted look as she creates a list separated into five columns.

She types as I speak. 'Alright, for the headers, we need name, gender, age, reason for selection and socioeconomic bracket.'

My father pulls out a tablet. 'I'll find the population records for each bracket.'

'Don't you need to include if they are voluntary or involuntary?' Art asks.

'No, I think for this to purely reflect how selections are being made, we need to focus only on involuntary clients.' I begin pulling up information on my comms. 'Starting with my newest: Phoebe Lang, female, 142 years old, selected on the basis of age, socioeconomic bracket D.'

My mother's fingers are a blur as she types, the diamonds adorning her rings flashing with the movement. I barely have time to take a crumbly shortbread biscuit and dunk it in my tea before she's looking at me expectantly. 'Sorry,' I mumble through my biscuit. 'Um, Vincent Wynne, male, 85 years old, selected on the basis of cardiovascular health, socioeconomic bracket D.'

'Next,' my mother commands.

'Kayden Olivier, male, 132 years old, selected on the basis of advancing Alzheimer's, bracket C.'

'Next.'

'Adelle Rostrum, female, 126 years old, selected on the basis of severe arthritis, bracket D.'

'Next.'

'Landry Schultz, intersex, 139 years old, selected on the basis of emphysema, bracket D.'

'Next.'

'Ah! Slow down, ma! Um, Mason Feist, transmale, 101 years old, selected for cardiovascular health, bracket D. Then Chevrolet Johnson, female, 96 years old, selected for emphysema, bracket C.'

My father lifts himself out of the couch with a groan, one leg stiff, then moves to sit next to my mother. He opens a second, smaller list and begins transcribing what percentage of the population makes up each bracket.

'Next,' my mother commands.

'Omar Sow, male, 150 years old, selected for age, bracket D. These biscuits are lovely, did you make them?'

'Your father did, next.'

'Sanvi Devi, female, 138 years old, selected for complications from Crohn's disease, bracket D. These are great, dad.'

My father grunts in response.

'Next,' says my mother.

'Felix Bauer, male, 112 years old, dementia, bracket D. You can stop saying next. Lei Wu, female, 163 years old, selected for age, bracket D.'

Over the next few minutes, my mother transcribes the details of my thirty or so other clients whilst my father begins tallying the numbers for each bracket.

'Well, I think it's pretty clear,' I say, closing out the app on my comms. 'Bracket D makes up almost sixty percent of the population, but ninety percent of my clients.'

'Not so fast,' Art interjects. 'I don't want to make any assumptions based on your character, but are you not also bracket D?'

'Artemis, not in front of the kids!' I joke, covering Hooch's ears. 'But yes, I am bracket D.'

'Is it not conceivable that you are specifically assigned clients from or close to bracket D?'

'I suppose it's possible. Or maybe even probable. Was this whole thing a waste of time then?'

'Not necessarily,' my father says slowly. 'You do have one bracket B client.'

'How many officers are in this city?' asks Art.

'A little under ten thousand, I think.'

'It doesn't add up,' Art shakes his head. 'If an equal percentage of each bracket is to be selected for termination and you have ten thousand officers in a city of a hundred million, it doesn't add up. Even though bracket B is only fifteen percent of the population, then...'

'Then you should have more, even accounting for the possibility that you are being primarily assigned bracket D clients,' says my father.

On the screen in front of him are several small, neat equations.

'So it's true, then?' I say bitterly. 'The poor are being selected more than any other bracket?'

'We haven't proven it definitively,' my mother warns. 'It could just be as Artemis suggested, that officers are matched with clients of similar brackets.'

'Be realistic, Nova,' says my father, throwing his stylus down on the table. 'The poor are being selected more than any other because not only do they vastly outnumber the other brackets, but they have no way of realising what's going on or stopping it.' My mother sighs and rises from the couch. 'You may be right. Who would like a fresh cup of tea?'

'Me, please,' I reply and pause for Art and my father to answer. 'Now, on to the next idea I had. I was thinking about what you said, Art, about trying to locate where the orders are coming from and going to. I know we only have one station set up at the moment, but when we have more, I have an idea.'

'Go on,' Art says.

'It's somewhat... morbid, but I euthanise someone every Wednesday at about eleven in the morning. It's a big file that goes out with the euthanasia report. If you were to sort of monitor your stations after eleven on a Wednesday, we might be able to start narrowing in to which band they're being sent on.'

Art swallows. 'I didn't realise it was quite so frequent.'

'Well, fifty clients, fifty-two weeks in the year and I get two weeks leave; I've currently got every third Wednesday off with the lower number of clients. So if you think it will work, I'll be euthanising someone this Wednesday. Otherwise, we'll have to wait a fortnight.'

Art gnaws his lip in thought. Before he can answer, a new red beacon appears on the map on the far wall. Ana has activated another retrans station.

'We have two set up now and two more ready to go,' he says. 'If Ana can keep placing them at the jobsites she's managing we might be ready by Wednesday to make a preliminary search for the band the orders are transmitted on.' He exhales in a rush. 'I know we only have about fifty weeks left and Ana told me over and over that we had to push, but I just... I didn't think it would be so soon.'

'Artemis,' I say. 'Not a lot has changed. I know it's kind of confronting to hear that I kill someone every week but we're still not really doing a lot. We still only have two retrans stations set up. We might not even by ready by Wednesday.'

'What's the next step for you, Artemis?' asks my father.

'For me? I just have to keep making the retrans stations and scanning the few transmissions we're currently picking up,' Art says.

'Good,' my father says. 'I know you can do that without any trouble. Don't think about the termination on Wednesday.'

My mother plonks fresh mugs of tea onto the glass table. 'We knew, going into this, that thousands of people would continue to die as we tried to sort it out,' she says. 'Unfortunately, we can't do a lot for those people at this time. All we can do is try and change things as soon as we can.'

'I understand,' Art says. 'It's just that there's a difference between knowing someone kills people and hearing that it happens on a Wednesday morning every week,' he smiles at me apologetically.

'It's okay,' I smile back.

Outside the window, the sun is setting. We can't really see it through the density of buildings, but the light on the street is getting softer and the temperature is beginning to drop. We sit and sip our steaming mugs in silence, watching the world cycle by outside.

'Why don't you set up a station here?' my mother asks suddenly.

Art glances to me, as if for approval. I shrug, in reply.

'Well, I suppose it couldn't hurt,' I say. 'You're situated sort of between my place and Ana's. It may not help with tracking down where the orders are coming from, but it will definitely help progress the communication network.' Art chews on his thumbnail. 'I have one station and some scrap parts with me. I was going to scavenge for more parts after we finish here anyway, so I gu-'

'Nonsense!' My mother leaps to her feet. 'Come with me. Most of my scrap parts are more suited to nano things and implant chips of various uses, but I'm sure we can find you some things to work with.'

She crosses to one of her desks, her heeled boots clacking sharply in the open space. From one drawer she pulls out a plastic container and begins filling it with seemingly randomly seized items.

'You'll need some canned air, of course,' she says. 'And I've had this copper wire laying around for ages and have never even opened it. I'm sure it would have a better home with you than with me.' She nestles it into the box.

Art blinks twice, mouth open.

'I've also got some of these microprocessor surface mounted devices, how many do you think you'll need? Five? They come in a pack of ten; I'll just give you a pack.'

My mother circles to her work bench and packs several small items into the container with quick succession. 'I've also put some old capacitors, transistors and resistors in here, you might be able to repurpose them. If not, I'm sure you'll find a use.'

Art's eyes are almost bulging out of his head. 'Do you think I could possibly trouble you for a blank brain chip? I've always wanted to take one apart and see how they work.'

'Of course!' She pulls three packets off of hooks on the wall and adds them to the box. 'I've also given you a temp-reg chip and a basic SSRI. Only the basic models, I'm afraid, but I'd love to see how your idea regarding incorporating the Peltier effect to make a self-regulating SSRI pans out when you have time. They're extremely delicate, so handle with gloves. Next time I see you I'll have to show you my data on remotely altering behaviour via brain chips.'

'I, I don't know what to say, Nova.'

She waves him away. 'Absolutely nothing; you're helping us, it's the least I can do.' She plants the box in his open palms with a smile.

I try to wipe the grin off my face. 'Anyway, I should probably be getting home. I'll wait to hear from somebody, anybody, if they need help with the retrans stations, otherwise I'll just contact you all a bit closer to Wednesday. Art, I'll see you and your father on Tuesday.'

'Not so fast,' says my father, as he pulls a plastic container of his own from beside the couch. 'What, did you think we'd forgotten about you?'

'Dad, I –'

'No,' my mother holds up one palm. 'I don't want to hear any complaints. Most of the things in there are for Hooch. We know you wouldn't accept it otherwise.'

Hooch looks up from his spot on the floor where he's been quietly gnawing some sort of rawhide treat in the shape of a giant pig snout since we got here. He grins at me, enjoying a treat more substantial than dusty dog biscuits.

'Thank you,' I say. 'From both of us.'

'You're not allowed to look through it until you get home,' my mother says. 'That's the rules. Now go,' she flaps her hands. 'Artemis can't leave until you've been gone for a while and the poor boy probably wants to get home to his dinner. Your father and I want to get to our wine, too.' 'Fine, fine, I'm going,' I say, clipping a very smoochy Hooch to his leash again. 'And thank you again, for the things for Hooch.'

'No problem,' says my father. 'Now get out, you know where the door is.'

'I'll set up the station here and let you know when it's done,' Art calls as I head out into the lobby.

All the other buildings are dark as I press the call button to land the office on the ground floor. Not wanting to arouse suspicions, I keep my goggles in my pocket, but I'm very aware that Winter could be anywhere in the throngs of the late afternoon crowd.

The walk home is a comfortable one. Cool and pleasant with the slightest hint of the chill that will soon come. Hooch is happy to have his booties off and we make quick progress home.

Inside, we unpack the makeshift gift box. It contains tinned dog food, dry dog food, a dog puzzle that treats can be hidden in to occupy Hooch's mind, rawhide dental strips for his teeth, worming medicine and vaccinations. Underneath is powdered milk, instant coffee, two bottles of water, dried meat and a small, rare block of chocolate.

'Parents,' I smile at Hooch. 'Can't live with them, can't let anybody kill them.'

Chapter Five

The weekend passes quietly, the hours slipping by in a silence fuelled by paperwork. Hooch has a bath, which inevitably means I have a bath by proxy. We go for long walks, try not to draw attention to ourselves and avoid looking for Winter everywhere we go.

I can't help but wonder how long he's been assigned to follow me.

On Sunday evening I lie in bed with Hooch's bony chest in my arms, teasing tangles out of his fur. His nose is buried in my neck and he breathes deeply. Other than the low grumbles he gives at the grooming, he seems content just to be. If only every day could be like this.

Lifting his head, he stares at the door, a quick exhalation through the nose the closest he gets to a bark. A knock follows.

'It's me!' calls Ana. 'Open up!'

Hooch surges out of the bed and presses his nose to the seam of the door.

Gently booting him out of the way, I open the door to reveal Ana in a thick coat.

'Don't you ever clean up in here?' she says as she brushes past me.

'Hello to you, too,' I say. 'Please, why don't you come in?' I close the door to the empty walkway. 'What are you doing here?'

'We're going out, once Art tells us it's clear.'

'The stations?'

'Yeah. I managed to place one yesterday, which bring us to four. The one at your parents place is sort of central as it's between you and me. We've got the one at the deli and the one at the school, which is covering North and West. The one I placed yesterday is in a warehouse in a more-or-less Easterly direction. Now we just have to get South.'

'What if Winter doesn't leave at all?'

She grins. 'Then I guess we spend a very cosy night together in this shoebox you call an apartment.' Her smile fades. 'Honestly, though, he wasn't here at midnight on Friday night when I walked by after the double shift. Art's watching him watch us,' she rolls her eyes. 'I wish I could just shoot him and be done with it.'

'Art or Winter?'

She shrugs. 'Art's not so bad. I'll let him live for now.'

'Oh,' I say. 'Well, make yourself at home.'

From an interior pocket of her thick jacket, she pulls two thick, soft cylinders. She tosses one to me and immediately begins unwrapping her own as she struggles out of the jacket. Underneath, she's wearing a labourer's jumpsuit. The reflective patterns over her chest and shoulders identify her as a manager. Steam erupts as she peels off the biodegradable thermal shell of her cylinder and takes a hefty bite.

'It's better while it's hot,' she mumbles through a mouthful of food. From a second pocket she pulls a smaller package and tosses it to me as well. 'I didn't forget Hooch. There's no onions in that one, just the meat and some of the vegetables.'

'How'd you know onions are poisonous to dogs?'

'Art told me.' She swallows her mouthful of food. 'He's read just about everything there is to know about everything.'

'Oh,' I say. Inside the thermal shell is some sort of soft stretchy wrap stuffed with shreds of meat, sour cream, crisp vegetables and a spicy salsa. It's delicious and filling and, by my calculations, a million times better than the goopy Nutri-Soup I had about an hour ago. It's hard to tell by the way Hooch eats things, but his portion is met with just as much gusto as the tinned dog food I gave him earlier.

'Good, huh?' Ana grins.

I can only nod.

After we've finished our meal, Ana reclines on the only chair in the room that isn't a stool or my bed and settles in to read something on her comms. Time passes in a somewhat surreal silence as I work on minor reports. Minutes turn into hours, surrealism turns into normal until Ana's handheld comms buzz.

'Art says Winter's fucked off for the night,' she announces, breaking the spell that had settled upon us. 'He thought he might have gone for a piss, but he's been gone for an hour now.'

I'm comfortable, leaning on my gel pillows with Hooch wedged alongside my legs and I grumble briefly.

'Sometime this century, if it pleases Your Highness?'

'It does not,' I say. 'But I'm coming anyway.'

I struggle into my night uniform, pulling on the thick coat and insulated gloves as Ana taps her foot impatiently, muscular arms crossed over her chest. I opt to wear one or two fewer under layers, having learnt last time that Ana's pace could make anyone overheat.

Outside, it's just as cold as I expected. Instinctively, my hands begin to search my pockets for my cigarettes.

'Don't,' Ana says. 'They make you stink.'

'Well isn't this turning out to be a great night,' I mutter.

'Suck it up; we've got work to do. We're heading to a jobsite I'm managing tomorrow. It's a recycled water plant in need of repairs.'

If I can't smoke I can at least try and keep my face warm by tucking it into the cowl of my uniform. My voice is slightly muffled as I grunt my assent.

Sure enough, the brisk pace begins to warm me, starting with the biggest muscles in my thighs and I have to pull down the cowl to release the pent-up heat from my quickened breath.

We reach the plant in about an hour and a half. Ana strips off her bulky coat to again reveal her reflective jumpsuit. On the secure gate is an LED sign that directs all enquiries to the site's manager. Listed is Ana's name and number.

'So what's the story this time?' I ask quietly.

'I'm the site manager. You're the EEO. You suspect that somewhere inside is a runaway meltdown, presumed non-verbal and violent.' She activates the flashlight in her comms and begins leading me on a tour of the plant.

However, it seems there was little need for a cover story. Within twenty minutes we've pulled out the retrans station hidden in Ana's coat and installed it in the dusty ceiling space of a break room.

I'm beginning to experience a little bit of what Art must have felt on Friday and it stirs up an almost forgotten memory.

When I was very young, I went to an amusement park; there is a sensation you get being poised at the top of the ride as it creaks over the point of no return.

This sensation has settled into my belly.

It's an uncomfortable feeling of both static and motion.

Before I know it, it's Wednesday morning. I'm standing in front of the mirror, studying the faint mark where the sauce stain used to be, wondering if I'm just imagining that I can still see it. A constant stream of messages from Art is sending flurries of nerves up my arm as my comms buzz with each new arrival. The messages vary wildly from an intense all-capitals message of extreme panic to a jargon-laden missive as he tries to ensure I know exactly how and what he will be doing as he tries to catch my outgoing report.

At precisely 7:30 AM, the funeral vehicle reaches the apartment complex of Hydar Hazan. Automatically, my mind fills in the other details: male, 140 years old, selected on the basis of extreme arthritis, bracket D. His friends and family help him carry his gnarled body to the vehicle and lower him inside.

'Good morning, Mr Hazan,' I say politely. 'How are you today?'

Hydar sighs, resigned. 'I'm ready, I suppose,' he says as his ten closest friends and family file into the car. 'I don't want to die, but I can't live with this pain anymore. I just wish the choice had been mine to make.'

'I know, Mr Hazan, and I am sorry.'

He smiles at me ruefully. 'How many times have I told you to call me Hydar?' 'Not enough,' his wife Zahra says softly.

During the ride to the clinic, Hydar quietly accepts the calming pill. By the time his guest are helping him out of the vehicle, his pupils are slightly dilated and his pulse has reduced to a steady eightly beats per minute, according to my goggles.

Inside, it's much like every funeral I go to. People weeping into their watercress sandwiches, people smuggling miniature cupcakes into handbags, people exclaiming wetly that they can't believe there's no crab in the crab cakes.

'Hey there, fucknugget,' whispers a nearby voice.

Winter. If there were one thing I wished was different from last week, it would be this. I try to feign surprise. 'To what do I owe the displeasure?' I say sourly.

'Oh you know me,' he grins. 'I love a good party.'

'Then why don't you fuck off and find one?' I whisper, hopefully low enough that the guests don't hear me.

'And miss spending time with you? Never!' He slings an arm around my shoulders, almost upsetting my coffee down the front of my robes. 'Walk with me, talk with me,' he says, leading me on a circuit around the room.

'What do you want?' I say pointedly.

'Not one to beat around the bush, huh?' he wriggles his eyebrows with innuendo. 'Rumour on the street is you got yourself a girlfriend.'

'Really? We're here to kill a man and you want to gossip?'

He removes his arm from around my shoulders and places his palm over his chest. 'The heart wants what the heart wants. Don't deny me my pleasure.'

Unfortunately, I can't completely refute what he's saying without raising important questions about why Ana has now visited my apartment twice after I'd stayed the night at hers; my face colours at the memory. 'Pleasure yourself,' I say, turning to leave.

Winter's singsong voice floats after me. 'I didn't hear a denial.'

The rest of the ceremony passes without incident; no one gets violent, no one gets too drunk. Winter is his usual charming self with the guests and I remain the silent observer.

In the Euthanasia Chamber, I prep Hydar for life support and explain the process to him in a calm but official voice.

'The injection I'll give you will essentially result in brain death,' I say honestly, scrubbing the inside of his elbow to sterilise it. 'It will be a lot like falling asleep and completely painless. After the ceremony, your viable organs will be donated, then you will be taken off life support.' The software in my goggles picks out each time his features blanch as I describe the procedure.

'I understand,' he says, and I have to admire the quiet strength in his voice.

In the solemn moments before the curtain is drawn to the Viewing Chamber, his hand creeps into mine.

'I'm not frightened,' he says. 'I'm not even angry any more. I'm just,' he sighs, eyes closed. 'I'm just ready. I don't want to be in pain anymore.'

I squeeze his hand in response, watching as his pulse slows with calm breaths and his features soften with anticipated relief. In a few short breaths, the curtain is drawn and the audio connection filled with Winter's solemn voice breaks the silence.

'Dearly beloved, we are gathered here today...'

My mind ponders as I carefully insert the cannula into Hydar's vein: how different from last week; how different from every week before it.

Winter's sorrowful eulogy guides the tempo as I measure the lethal dose and connect the syringe to the IV port. The carefully hidden electrodes on Hydar's chest and scalp will keep his body alive once his brain is dead. With an organ donation, there is little need for a stethoscope. Slowly, I depress the plunger on the syringe, my goggles picking out the minute reactions in Hydar's body. The unfurling of gnarled hands, the relaxing of a pained brow, and the release of tension from the shoulders.

I give a minute nod to Winter; no eyes are on me.

'... The city thanks you for your contribution. Esteemed guests, Hydar Hazan.'

I glance at the time-display inside my goggles: 10:42 AM. Art is in place and the euthanasia report will take just minutes to finalise.

Where one door closes, another opens.

Art and Vincent are drinking chamomile tea when I finally manage to slip into their apartment. The air conditioning is pure bliss after the baking hot midday sun outside. With Winter preoccupied with overseeing the organ donations, I should have an hour, minimum, until he comes to find me again.

Vincent struggles to his feet as I enter and begins preparing a third cup. 'You couldn't have changed out of your uniform before you came here?' he asks.

I shake my head. 'Trust me, I'd have loved to, but time is limited.'

Art's skin tone is a little pale around the edges as he greets me, brow furrowed as he studies some sort of oscillating line on a screen. He takes a shaky sip from his tea. 'I think I managed to isolate the band that the Euthanasia Office operates on, but it's as Nova and I expected – it's heavily encrypted.'

'How long will it take you to get past the encryptions?' I ask.

He sighs and runs one hand through his hair, sweeping his caramel-coloured mess of locks back from his face. 'There's a lot of factors involved. Some encryptions could change every day, or even every hour. I've only ever seen anything like this once before, which leads me to believe it will change only once a month. Even if I'm right, we don't know what part of that month we're currently in. I might start getting somewhere only to have it change in a week or even tomorrow.'

'So it's hard to say? Thank you,' I say to Vincent as he places the cup of steaming chamomile tea before me.

Art nods. 'With access to your comms, I've got a decent starting point, but I'll be able to say more in a couple of hours or days. On the plus side, the first retrans station to pick up the transmission was the one at the new school being built, so we start again, heading West. I should soon have the voice network set up; I can give you an earpiece if you don't already have one.'

I shake my head. 'Thank you, but I've already got a regulation officer earpiece I should probably use.'

He places down the stylus he'd been gripping and stretches his fingers. 'I might need to take a look at first, make sure it doesn't have any recording or keyword recognition software.' Pale lines are etched around his nose and mouth.

'Oh,' I say, feeling stupid. 'Of course, I'll give it to you or Ana, whoever I see next time I have it on me. Are you okay?'

Art takes another shaky sip of his tea. 'I'll be okay eventually. I've just, uh, never heard someone die before.'

A flush creeps up my neck. 'I didn't realise you could hear everything. I thought you were just, I don't know, monitoring the network.'

'I was,' he says defensively. 'But I got so anxious last night waiting for this morning that I tried making an audio link to the microphone in your comms. I didn't think it had worked until about 7:30 this morning.'

'I'm an idiot,' I groan. 'I left my jammer in my regular uniform. Does that mean anyone could listen in to us now?'

Art sniffs in derision. 'Anywhere else, maybe, but not here.'

'So,' Vincent interjects. 'That other officer sounds like a bit of a cunt, eh?'

'You could say that,' I reply drily as Art chokes on his tea. 'Great subject change, by the way.'

'Thank you.' Vincent says. 'So what's next from here?'

I blow gently on the steaming cup, letting the scent wash over me. It's almost like the smell of dad's old farm, almost like wheat.

'We have to spread stations out from the school to try and track it,' Art gurgles, then coughs once more. He wipes his streaming eyes before continuing. 'The problem we're having is where to put the stations. Ana's got a couple more places up her sleeve like the apartment complex being refurbished in the Gates District, but we're quickly leaving the areas she works in.'

Vincent smiles, unashamed of the slight sag on one side. 'Artie, I always said you were clever, but did you forget your old man?'

'Dad,' Art says gently. 'Once I get the network set up, you can definitely monitor it, but,' he glances at me and lowers his voice. 'But with your leg the way it is, I don't think you can help set up the stations.'

'I'm not dead yet, Artemis! I'm talking about my gardener's club.'

'I'm not sure how growing GM veg out our windows can...' Art's expression changes from puzzlement to realisation. 'Do you trust them? Would they even help?'

'I trust some of them and of course they'd help. They're mostly all a bunch of people like me, old and crippled, stuck in their homes waiting for selection.'

'Wait a minute,' I say. 'Can someone explain to me what's going on?'

'My dad-' Art begins.

'I-' Vincent says at the same time. He glowers at Art.

'Sorry, go on, dad.'

'I've got a GM vegetable club. It's just a bunch of people who have difficulty leaving their homes. Art and some of the other kids built us these polarized boxes that hang out the window and rotate with the path of the sun and are protected from the worst of the rays. We send the produce and off-cuts and seeds around to make better veg.' He shrugs, suddenly embarrassed. 'It's nothing special, just a little project to keep us busy.' 'That sounds amazing,' I shake my head. 'My dad would love that. Can you mark on a map where the people you trust are?'

As I've been speaking, Art has already opened a map on a nearby tablet and is rapidly marking points with names.

'Art, Violet's dead,' Vincent says pointedly, gesturing at one mark.

'Mrs Hastings is dead?' Art says in shock, not resisting at Vincent pulls the tablet out of his hands.

'And I wouldn't trust Lewis as far as I could throw him, which is obviously not very far,' he says, raising his weak arm.

'But you love Mr Taylor's chillies!'

'Doesn't mean I trust him,' Vincent says. Typing with only his index fingers, I'm impressed with the speed with which Vincent redoes some of Art's work, removing some markers, adding others. By the time he is done, there are thirty points on the map ranging from the next complex over to fifteen districts away.

'Amazing,' I say. 'With the stations hidden in apartment complexes it will be harder to locate them. I can't believe things are progressing this quickly. Are you sure these people will be willing to help?'

'Half of them are already selected and the other half will be selected soon enough. What's the worst that could happen?'

'You make a valid point,' I stand and drain the last of my tea. 'On that note, I should go, Winter will be almost finished with the organ donations and I need to get home and have a shower.'

Vincent stands with a slight struggle. 'I'll start contacting some of these people and testing out the waters. With any luck I'll have the points closest to the school arranged by the end of the week. I'll send Art and Ana around to them with some cuttings and they can set up the stations while they're there. If we move fast, we'll be ready by the next Wednesday at the latest.'

'Thank you,' I say, shaking Vincent's hand firmly. 'I don't have a client this Wednesday so there's no rush. Well, I mean, there is a rush but you know what I mean. Anyway, my gratitude to anyone who agrees to help.'

He laughs. 'This is the most excitement me or them will have seen in years.'

I turn to face Art, who seems to be determining the potential area covered if a station was placed at each marker. 'Art, do you think I could bother you for one of those polarized garden boxes? And maybe some chilli seeds? My dad would love it.'

Art looks harassed. 'I have to build some stations for my dad first and I have a project of my own I'm working on, but if I go out and scavenge the parts tonight I should be able to-'

'No rush,' I smile. 'Save the world first, then build me a window garden.'

Chapter Six

Not long after falling asleep on Friday night, I awoke with a panic. What should have been pleasant slumber instead became a frantic clawing out of my bed linen.

At some point, something somewhere had exploded or caught fire and now the noxious smell of smoke and burning plastic was wafting in through the gap in my window I leave for fresh air. As I slammed the window shut, one particular note in the scent caught my attention; it wasn't just smoky or acrid, it was somewhat... meaty.

Grabbing my goggles, Hooch and some blankets and pillows, I seal us into my tiny bathroom, padding the gap under the door with dirty laundry. After laying out a large square pillow for Hooch to sleep on, I fit my goggles to my face and switch on the news feed. Settling into the bathtub, the only other space available, I begin to switch feeds until locating the fire. It doesn't take long; every news feed I switch to afterwards is rapidly beginning to run the same information about the explosion in the nearby Pei Li District. The number of the dead is as yet unknown but presumed to be several thousand. Live footage shows emergency services working to evacuate those still trapped in the building and a constant stream of emergency vehicles are whisking away the injured. Bile rises in my throat at the remembrance of that meaty smell on the wind. At this point, the cause of the explosion is unknown, but connections are being drawn between it and the two explosions last week.

One explosion is normal in this environment. Two explosions are a tragedy. Three are very suspicious.

A message buzzes on my wrist – *are you okay? An apartment complex is on fire near you. Are you free tomorrow?* Before I can start to reply, my comms begin a sustained vibration and a static image of my mother's beaming face appears on the screen; it's an incoming voice chat. How unusual. If only my earpiece wasn't in the main room of my apartment. I tap to accept the call.

'Uh, hello?' I rasp with the voice of the just awoken. It echoes in the harsh space of my bathroom.

'Are you okay?' My mother cries, the tinny loudspeaker of my comms and the acoustics of the bathroom doing my ears no favours.

'Ma, I'm fine,' I soothe. 'Hooch and I are in the bathroom. It's a little smoky outside but we're fine.'

'I didn't know,' she weeps. 'I didn't know the Pei Li District was so close to you and I was so worried.'

'Ma, it's okay, I'm fine,' I say gently. 'I'm fine, Hooch is fine, everything is fine. I'll come visit you and dad tomorrow. Where's Dad?'

'He's asleep,' she hiccups.

'Well, go wake him up and tell him I said to give you a hug. I'm fine, Ma, honestly.'

We make unimportant small talk as my mother sniffles and calms down. This is a side of her that none of her business associates would ever see. Eventually she wishes me goodnight and blows her nose one last time, the delicate trumpet deafening me in the echoes of the bathroom.

Once I've ended the call, I shoot a quick reply to Art assuring him that Hooch and I are okay and arrange to meet him tomorrow.

In the morning I feel like a truck has hit me. Apparently, sleeping in a bathtub is awful for your back. Hooch, on the other hand, looks quite comfortable sprawled upside-down half-off his cushion with all four paws in the air. I struggle to my feet, my spine making noises reminiscent of gravel under a boot. With difficulty, I disrobe and turn on the anti-bacterial spray, hoping the steaming liquid will ease my cramped muscles and misshapen bones. Hooch has one eye open, guarding against a sneakattack bath. After a few minutes I begin to feel a little more human and switch off the spray, padding naked and dripping into the main room of my apartment. The smell of smoke has permeated the closed door and window, but it's still got to be a lot worse outside. Though I want nothing more than to crawl into my bed with the gel pillows and lumbar support, I force myself to dress in casual clothes, focusing on first putting one leg through my underwear at a time and ending with pulling on my boots.

'Well,' I say to the white belly in the bathroom. 'Are you coming or not?'

Hooch surges to his feet, nails clacking on the tiles. He's in front of me in an instant and extraordinarily patient as I fit one of my very few and very expensive dog pollution masks over his muzzle.

Outside, it is even worse than I expected and I hurry to get Hooch downstairs and away from the lingering smell, coughing even through my own filter.

After a few blocks, I'm able to remove our masks, though Hooch and I are both slightly stained by the ash and soot in the air.

At my mother's building, hers is the only floor open as she's the only person who actually lives in the building. As it's the weekend, we thankfully don't have to deal with my mother's apprentice sniffing and rolling her eyes as we pass.

Inside, my mother is almost unrecognizable without her work attire. Gone are the diamonds and gold on her fingers and ears and from around her neck and wrists. Gone are the heeled leather boots and gone are the ocular lenses biolinked to her eye movements that she uses in her nanowork.

She leaps to her feet, blue and white china-patterned bathrobe flapping over her purple slippers. She pulls me down into a hug, petting my head.

Not one to stand on ceremony, Hooch has gone to sit by my father who is reading the morning news and eating real bacon and synthesised eggs.

'I'm so glad you're okay!' My mother cries as Hooch inches closer to my father's knee. Her purple-rimmed glasses are digging into my face.

'Ma, I told you I'm fine,' I say gently, returning the hug. Hooch licks his muzzle and inches closer again, his front paws now almost on my father's foot.

I extricate myself from the embrace and lead my mother back to the table, guiding her back to her breakfast and trying not to laugh at my incredibly shameless dog putting one paw on my father's knee.

'Your dog,' dad announces. 'Wants something.'

'Yes I can see that,' I say with a straight face.

My mother flies to her feet, again, her breakfast only half-eaten.

'I'll make you some bacon and eggs,' she begins, but I pull her up short.

'Finish your own breakfast first,' I tell her sternly. 'Neither Hooch nor I are starving, we can wait.'

My father turns his back slightly, pretending not to see as the saddest dog in the world rests its head on his knee. He scrolls his newsfeed with one finger, the others wrapped around a knife dripping with egg yolk.

'Oh, Yon, look at the poor thing,' my mother cries. 'Give him a little bit of your bacon.'

'Nova, have you ever seen a dog hunt down a pig in the wild, butcher it up and fry up the bacon? What about use a matter-conversion unit? The dog can have my plate when I'm done with it.'

My mother pouts, cutting her breakfast into tidy squares while I pull up a chair and try to stretch out the kinks in my spine. She eats like an efficient robotic bird, neatly chewing and swallowing each square before moving onto the next. As she is eating, my father finishes his breakfast and places the plate on the floor for Hooch's enjoyment. In no time, my mother adds her plate to his. Immediately, she jumps to her feet again and dashes into her hideaway kitchen; all the appliances recede into cubbies in the wall, including the stove, to give the appearance of an office workbench when not in use.

'So,' my father says slyly over the rim off his coffee. 'Just wake up, did we?'

'Dad!' I say indignantly. 'I've been up long enough to shower and walk here and you're just having breakfast.'

'Oh honey, he's just teasing you,' my mother calls over the island bench.

From the curling edge of my father's moustache, just visible behind his mug, I can see she's right. 'It's the weekend anyway,' I add, to no one in particular.

'Must be serious if you're here before noon,' my father drawls.

I decide to let that one go. 'I was going to see if you could dog-sit for the day.

It's too smoky at my apartment for Hooch and I've got a couple Bonuses I was going to spend.'

'No can do,' my father says, shaking his head. 'How can we dog-sit something that isn't even a dog?'

'He is a dog!' I reply.

'Barely,' my father replies. 'Maybe if you're really stretching the definition of "dog," or if you're squinting really hard.'

'Ma!' I cry, swivelling to face the kitchen.

'Yon, don't tease. Of course we can dog-sit Hooch.'

I turn again, just catching my father scratching Hooch behind the ears. 'I suppose that means we have to take the mutt for a walk, too?' he asks.

Immediately, I soften. 'Only if you feel up to it, otherwise I'll take him on a long path home when I come to get him.'

My mother places a plate of bacon and eggs in front of me and resumes her seat at the table. 'Thank you,' I say with a smile.

With a little more ease than usual, my father gets to his feet and scoops up the now-spotless breakfast dishes from the floor. 'Coffee?' he asks.

'Please,' I reply, checking the time on my comms. Art had requested we meet at ten in a café on one of the higher floors of a nearby shopping complex; I've got a little time to spare. 'Dad, I have a present for you two, but it's not ready yet.'

'Say no more,' he says, raising one hand to stop me. 'I've always thought a polished human skull would really class this place up a bit.'

I laugh as my mother wrinkles her nose.

At a quarter to ten I walk into the large shopping complex only a few blocks North of my mother's office. Without my uniform, I seem to be invisible to the huge throngs of shoppers pressing into me from every direction. Wading toward the lift, I pass stores bulging with people – stores selling tinned food, stores selling cheap body modifications, stores selling anything you could want to put your hands on, as long as you could pay the price.

As I progress to higher levels within the complex, the crowd thins slightly as the prices rise. On the tenth floor is a café called The Human Bean, which features such specials as A Hot Cup of Joe With Cake for only one hundred and fifty credits or A Rosy Lee and Shortbread for one hundred and thirty.

Art is in a tiny booth at the back, tucked behind a privacy screen. His hair hangs limply and his skin is waxy and pale, though he perks up once he sees me.

'Not to be rude,' I say. 'But you look awful. Are you getting enough sleep?'

'Am I getting enough sleep?' he barks a short laugh. 'No. No I am not getting enough sleep.' He takes a gulp from the huge mug of lapsang souchong tea in front of him; the smoky smell of the brew turns my stomach.

'Is there anything I can do to help?' I ask, sliding onto the bench opposite.

He grins at me, tapping a few inputs on his handheld comms. 'I'm so glad you asked. My backpack is under the table. In it are the three new stations and a collapsible polarized box for your parents with chilli seeds. You can consider that payment for today.'

'Payment for what?' I ask slowly, glancing down as my comms vibrate. It's a message from Art with three names and addresses.

'For delivering the stations. Now wait just a minute,' he says as I go to object. 'There was another explosion last night and Ana is on damage control and massively understaffed. I've barely slept the last couple of nights so I could finish these stations, plus I built the polarized garden box for your parents, plus I'm working on my own project that I think will really help us.'

'Nothing is ever free these days,' I grumble good-naturedly. 'I'm not going to lie, I'm not keen on this, but I'll do it. What do we do about Winter?'

Art smiles and I can tell he's exhausted by how quickly it fades again. 'I'm working on something for him as well. In the meantime, however, we're going to hope you can just lose him in the crowd. It has to work at least once.'

'Really? That's our plan? If it works, I'll give up smoking.'

He shrugs. 'Have you got a better plan?'

'No, not really,' I answer. 'I guess we try it once and hope for the best.'

Art yawns, fiddling with his comms. 'That's the spirit. Now go, so I can go home and get some sleep.'

'How do I activate the retrans stations?' I ask, slinging Art's backpack over one shoulder.

'I just sent the instructions,' he mumbles as my wrist buzzes with receipt.

The crowds on the upper levels may be thinner, but people are still pressed in thick around me; there's a chance we may get away with this manoeuvre once. Sidling through throngs of people, I head for another elevator, take it two floors up and cross the complex to ride all the way down as far from the point I originally entered as I can. Leaving quickly, I head for the closest underground MagRail platform, feeling incredibly conspicuous. Eventually, I board the train and force my way into the centre of a pack of passengers, ducking my head to try and hide my face.

Two stops later, I and a thousand other people alight onto the platform and I try to remain hidden in the rush back to street level. Ducking into an alley, I try to light a cigarette as nonchalantly as possible, peering around the flame for Winter. If this ridiculous plan has worked, this might be my last cigarette. Checking my comms in the shade of the alley, I've already begun to sweat. Even with my temp-reg chip working to cool my pulse, the sun is beating down on my scalp.

Finding my bearings, I set off in the direction of Tuesday Harris. The sensation of the unknown is overbearing, without her age, socioeconomic bracket and a general picture of her health, I feel like I'm heading in blind.

Knocking on the door of Apartment 14, Level 22 of Complex B, of the Yen District, I am a bundle of nerves. Even stopping to catch my breath three times on the way up the stairs hasn't helped. I thought I might vomit at level 17 and I'm beginning to wonder if maybe I'm allergic to egg but I'm not sure if you can be allergic to synthetic food. I'm partway through wiping my brow on my sleeve when the door opens.

A woman in her early hundred-and-teen's opens the door. Her septum ring with the silver filigree and tiny diamantes glimmers as she leans back into the apartment.

'Tuesday! The veg from Vincent is here! Come in, come in,' she ushers. 'You're letting all the cold air out. I'm Amber, Vincent told me you were coming.'

The apartment is an eclectic mix of vintage and homey; silk screen-prints for bands that were dead before I was born blend into delicate crochet decorations.

Tuesday, when she arrives, is a few years older than Amber. She reaches out to shake my hand with a smile, detaching her tiny glasses from the magnetic implant in the bridge of her nose.

'I've just made a pot of peppermint tea, would you like some?' she asks, kindly, taking note of the unhealthy tinge to my skin.

'Please,' I smile, placing the backpack on the ground. Inside are seven parcels ranging in size, two are marked Harris. 'I believe this is for you,' I say, handing over the larger parcel.

Amber unwraps the parcel with delight, pulling out several small tubes of seeds and a larger, slightly damp cutting.

'What's that one?' I ask, curious. 'Will it grow into a miniature fruit tree or something?'

Tuesday's laugh is a bemused tinkle. 'No, it's just a succulent, purely for decoration. Amber, honey, what have we got?'

'Looks like chili, carrots and radishes.'

'Oh, wonderful,' she hands me a small package in return. 'These are for Vincent; it's pumpkin seeds and some small cucumbers and tomatoes, the last of our crop.'

'How do these survive in the boxes?' I ask, taking a seat at the small twoperson table. Amber has dragged in a third mismatched chair from their bedroom.

Tuesday shakes her head with a smile. 'Don't ask me. Artemis and some of the others put them together. Something to do with the polarization trapping heat and a terrarium effect to trap moisture protect it during the day and keep it from frostbite at night.'

'And keep our water costs low,' Amber adds. 'Now tell us about the station.'

'Ah, well,' I begin, off to a great start. 'The stations are able to receive a wide range of frequencies, including the one the Euthanasia Office transmits on. Or at least, the one we think is the Euthanasia Office. Um, they have a limited physical range, so we have to keep spreading them from the last known location. Ana, I mean Diana, Vincent's daughter, was placing them at her worksites, but we've moved beyond the areas she has access to.' Quickly, I scan the set-up instructions Art sent me; they seem simple enough. 'It should take me less than a minute to set up and requires no maintenance from you.'

Amber nods solemnly, brow furrowed as comprehends the setup. 'And you? How did you become involved in all of this?'

I feel the blood drain from my face. 'Ah, I,' I swallow. 'My father has also been selected and I, uh, I'm...' I glance between each of their serious little expressions; I can't believe Art and Vincent didn't tell them.

Tuesday bursts out laughing. 'It's okay, we know you're an officer.'

'Oh,' I say, feeling a rush of foolish relief.

Later, it takes me little time to set up and activate the retrans station they've opted to hide in a glass-fronted cabinet of ornaments and I feel positive about the day and about the progress we are making. It takes me about an hour to reach the next point, the home of Jie and Bin Hu, a married couple due South of the last received transmission.

Their welcome is similar to that of Amber and Tuesday Harris, though a little creakier around the edges as they appear around two decades older.

'Come inside,' Jie smiles. 'Bin will be with us in a moment, he's just making a salad with the last of our vegetables. Would you care to join us?'

Bin nods a polite greeting from his wheelchair in their kitchenette.

'Oh, I'm so sorry,' I say. 'I didn't meant to interrupt your lunch. I can come back later or set the station up quickly and leave if you would prefer.'

Jie ushers me into the apartment in a manner that brooks no refusal; a very old gold chain jingles on her wrist as she does so. 'Please, do come in. We so rarely have guests. The only person we see is Bin's EEO these days.'

I drop my eyes. 'I'm very sorry to hear of your selection, Mr Hu.'

'Bin,' he says, the first words he's spoken. 'Call me Bin.'

'It's okay,' Jie adds, pity in her eyes. 'Vincent told us you're an officer, too. He told us about your father and what you're trying to do.'

Bin clears his throat. 'We can appreciate having to work for a living like everybody else, but, moreso, we can appreciate the enormous task you've set yourself.'

'Thank you,' I say. 'But I know I should have done something sooner.'

'No "buts",' Jie says. 'Does changing now exempt you from everything you've done up until now? Of course not, but you're just one person and this whole situation is huge. If you succeed, we'll be very impressed.'

'If we're alive to see it,' Bin says, with the hint of a smile. 'How soon do you think it will take? I've got seven months to live.'

'It probably won't be that soon, sorry Mr Hu.'

His smile fades. 'Try and do it before Jie gets selected, then. Now, what's in the bag?'

Kneeling, I open the considerably lighter backpack and withdraw the two parcels marked with their name and hand one to Jie. Inside, she and Bin are delighted to find a similar package of chillies, radishes and a soft bunch of coriander. Jie fetches the return parcel of seeds and produce for me to tuck into the backpack.

'I don't know how Vincent manages to grow so much,' she murmurs.

'It's his boy Artemis,' Bin replies. 'I swear, with a pair of needle-nose pliers and a burnt-out washing machine, that boy could build just about anything you needed. He's probably made all sorts of moisture gauges and self-adjusting temperature controls and whatnot.'

'I don't doubt he's clever,' Jie counters. 'But that doesn't explain how Vincent grows his vegetables so much bigger and faster than ours.' She begins serving three small bowls of something that was unlike any salad I'd ever seen before.

'It's vermicelli,' Bin says, seeing my expression. 'They're a type of noodle.'

'Oh. I think I had vermicelli with my parents when I was younger,' I reply. 'But it's probably been at least twelve or thirteen years since I've had it.' The rest of the salad appears to be a mixture of shredded carrots, cabbage and slivers of red chili with a sharp dressing.

The discussion over lunch is an odd one as Jie and Bin ask questions about what to expect during Bin's euthanasia. I can't believe their officer hasn't even told them what happens during and after the injection and Jie's rights as the widow. A cold anger settles into my belly at the situation; not only are people who do not want to die being selected for euthanasia, but they're being led blind to the slaughter as well. Eventually, Bin clears the dishes as Jie shows me where they've chosen to hide the retrans station. This time, the setup takes less than a minute and I'm soon on my way, the mostly empty backpack flapping against my back as I rapidly descend to the street level. I'd been feeling guilty for some time that Art had been the brain behind our entire project, but now I feel as if I finally have a goal of my own. Not an intangible goal like maybe somehow saving my father and Vincent, but a real goal of forcing a reassessment of the Euthanasia Laws to be voluntary only.

Ideas, daydreams and idyllic speeches race through my mind over the next hour during the walk to the final location. These daydreams war with the fear of failure, the fear of drawing attention to myself, and the fear of my own possible selection and the absolute certainty that I must do it.

In seemingly no time, I've reached the last apartment: Guillaume Mercier.

Guillaume must be the oldest person I've ever met. Judging from his appearance, he's hurtling toward 190 years old with no signs of slowing down. After he answers the door, it's all I can do not to gape at this shrivelled man.

He cackles at my expression, barely making more than a whistling sound, and gestures me inside his sparse apartment.

'Pardon my incredible rudeness, Mr Mercier, but how are you alive?' I ask, placing my backpack into one corner.

Guillaume whistle-laughs again, tapping one long finger against the side of his massive nose in a gesture of secrecy. 'I think they forgot about me,' he wheezes. 'Nobody official has come to find me in over thirty years. Somehow, I've fallen off the radar, so don't you go telling anybody you found me.'

'No, of course not,' I agree. 'But how can you have just fallen off the radar, so to speak? How do you have an apartment?'

Guillaume shakes his head. 'I think I was presumed to be one of the dead during the earthquake in the Old Nye District before Generation One was born as I used to live over there. As for the apartment, well, it's in my great-niece's name.'

'Amazing,' I say.

'Of course, that doesn't make up for the fact that I'm about as stable as a three-legged table. I haven't left the apartment in over twenty years.' He moves stiffly over to the small kitchenette and switches on an ancient electric kettle. 'Sit, sit,' he gestures. 'My great-niece brings me the things I need that I can't grow. Artemis visits every couple of months.'

'Mr Mercier, pardon my asking, but you're also obviously quite elderly. My grandfather died when he was 94 and he looked about the way you look now and that was forty years ago. Have you been genetically modified in some way?'

Guillaume laughs his wheezy laugh again. 'Maybe just a little. I was an early tester for some of the post-birth and anti-aging GM as I was working in those fields. I'm sorry to hear about your grandfather.'

I nod, caught in the memories. 'My grandfather lived fairly isolated from the cities, before the cities were everywhere. He was old before it could make a difference. My parents and even I didn't receive any in-womb genetic modification, but we all received the anti-aging GM at 18, just like everybody else.'

He nods sagely; these are things he clearly understands. 'I've been poked and prodded with more needles than I care to count. I'm either going to live forever or spontaneously crumble into a big pile of dust without warning. Now then, when Vincent called, he said Art and Ana would bring the veg, then Artemis drops by at three in the morning and says an officer would bring it. I don't want to be rude, but I see the officer but no veg.' He smiles to show it's a joke. 'Art came here? At 3 AM?' I ask, kneeling to unzip the backpack and retrieve the two packages marked Mercier.

'Said he could either finish the stations or deliver them, but not both,' Guillaume explains. 'Said the girl was caught up at work and couldn't bring them either so it'd have to be you. I said it was no worries and he told me about the situation, and about who you are and about what you're trying to do. He had an awful lot of respect for you when he spoke.'

I can only hope Guillaume's vision is fading in his old age so that he can't see my face colouring. 'What'd he say?' I ask.

'It wasn't what he said so much as the way he said it. He seemed to have a lot of admiration for what you're attempting.' There's a click from the kitchenette. 'Kettle's boiled, there's instant coffee next to it and sugar next to that. The mugs are hanging on a hook above the kettle; you can't miss them. I take my coffee black with three sugars. I can't afford milk.'

'Yes, sir,' I say, to his amusement. Everything is exactly where he said it is.

'Now,' he says while I'm making the coffee. 'Artemis is a good lad and the hardest worker I've ever met in my life. He might have an interesting interpretation of the law, but that boy cares for his father and always takes an interest in talking with me and the other vegetable club people who can't leave our homes.'

'I understand,' I say. 'Art has been doing far more than any of us in the face of this situation, and I am absolutely determined to match or even exceed his efforts.'

'I'm not talking about this,' he waves a hand at the apartment, the backpack and me. 'I'm talking about him. It'd upset me to see him treated in any way less than he deserves and you can trust me when I say it'd upset you to see me upset.' The colour drains from my face as I'm stirring in the sugar. 'I, I'm not sure I correctly understand what you're saying, Mr Mercier.'

'You're understanding exactly what I'm saying. Now add a dash of cold water to the coffee so I don't burn myself.'

'Yes, sir,' I say. I take my time, conscious of the fact that my face is red.

After I've finished with Guillaume, collected Hooch from my parents and walked the long way home, I'm exhausted and sweaty. My parents were delighted with the miniature window garden and chili seeds, promising to send me a picture as soon as they had bought the soil and set it up. Unlocking my door, it is immediately obvious that something is different. For one thing, it smells fresh and clean and all my clothes and files have been picked up off the floor. For another, Art is asleep on the clean linen on my bed, the long locks of his hair curling around his delicate shoulders.

Gathering my spare blanket, I cover him quietly, taking note of all the thoughtful little things that have changed in the tiny space I call an apartment. From a casual inspection, Hooch's water bowl has been scrubbed and filled with clean water and the mouldy Nutri-Soup's have been removed from the fridge and thrown away in favour of take-out for two. Ordinarily, I would be angry at the invasion of my privacy and personal space, but as far as I can tell, none of my locked case files have been tampered with and he hasn't gone so far as to insult me by bringing a surplus of groceries or washing my laundry.

He looks incredibly fragile whilst asleep. With his eyes closed and his face soft and relaxed, it is evident how young he is, how large and round his eyes, how sharp his cheekbones. My heart softens in an odd way at the image of his perceived vulnerability and I want nothing more than to protect him. Hooch seems to understand the need for quiet and after drinking his fill of water he settles onto the often-unused dog bed at the foot of my bed. I note with a smile that the pet bed has been cleaned of the accumulated fur.

Studying Art further, it becomes apparent how hard he's been working; shadows like bruises drag down under his eyes and his lips are gnawed and dry. Tiny scratches and grazes war for space with the calluses on his slender fingers.

I need to shower but I don't want the sound of the spray to wake him. Instead, I settle for sitting at my clean bench and working quietly on files and cases as first the sun sets and then a kaleidoscope of colours flood the room from the window over my bed. Over time, the air conditioning deactivates as the temperature drops and still Art sleeps.

After I've been working in silence for three or four hours, I notice that he's awake. He's been watching me, unmoving. Backlit by the window behind him, his large eyes are almost indiscernible.

'What time is it?' he asks quietly after a few moments of eye contact.

'A little after eight,' I tell him.

'I'm sorry,' he says, his voice soft. 'I didn't mean to fall asleep.'

'Don't be,' I reply, remaining seated. I don't want to break the spell that has settled on this situation. 'After everything you've done, you must be exhausted.'

He remains on his side in my bed, the blanket covering all but his face.

'Thank you,' I add. 'Thank you for everything; the food, the retrans stations, modifying my comms, the garden box for my parents. Everything.'

Art recedes a little further into his cocoon, as if to hide his smile. 'Have you been into your bathroom yet?'

'No?' I reply. 'Should I?' Still, I remain seated. There's something about this moment that I want to preserve.

It is Art that moves first, sitting up slowly and settling the blanket around his shoulders. He nods at me, the smile still lifting his features.

What I'm meant to find is immediately obvious. A huge glass bottle half filled with soil, small rocks and the fragile beginnings of new plants dominates the tiny space of my bathroom. It's almost to my knee in height and enormously round at the base, tapering to a delicate neck plugged with a silicone cork the size of my fist. Tiny discrete gauges on the side display various levels inside the bottle.

'It's a terrarium,' Art says behind me.

'It's beautiful,' I breathe, turning to face him.

'Give it time and the plants will grow, then it'll be something special.'

I shake my head with a smile. 'It's already special. Thank you. Where did you find the glass bottle? It must be absolutely ancient.'

'Ana found it a few years ago, under several feet of concrete. She just missed it with an excavator. She brought it to me, I cleaned it up, made the plug and the gauges and I've had it ever since until I could figure out what I wanted to do with it.'

'Thank you,' I say again. 'I mean it.'

Somehow, Art's smile grows ever wider. 'Do you know what the best part is?' he asks me, his grin threatening to separate his head in half. 'It's all self-regulating, you don't have to do anything.'

'Ah,' I say, catching his drift. 'What you're saying is that I can't kill it.'

Art laughs, still wrapped in my blanket, and the sound is intoxicating. 'Come eat,' he says. 'I don't know about you, but I'm starving.'

The food that he's brought appears to be similar to what Ana brought the other day. Instead of a soft, stretchy wrap it is stiffer more bread-like wrap filled with shreds of meat, crisp lettuce and tomato, a garlic sauce and some sort of parsley salad.

'What is the plan from here?' I ask as I eat.

Deep shadows still mar Art's face as he answers. 'There's not a lot we can do until we find out where the officer transmissions are going to and coming from. We just have to keep spreading the stations. I'm working on something that will help us with that Winter guy and trying to build at least one new station every day. I've also been working on getting past the encryptions on the network so we can at least see what is being transmitted, even if we don't know where it's headed. Then in my spare time, I'm also working on a project of my own.'

'No wonder you're exhausted,' I say. 'I'm sorry; I wish I could do any of those things to take some of the pressure off of you. I don't know how I ever thought I could do this alone.'

'You are helping,' he argues. 'Without you, I wouldn't have even half the supplies Nova gave me. We wouldn't have an inside force and the advantage of having your comms to work on the network. I would have had to set up those stations myself and it would have taken me twice as long. Ana wouldn't have been able to set up some of the stations without you as cover.'

'So I'm useful as the double agent bad guy?' I smile wryly. 'I understand that I'm helping, but without me the work would have just been slowed. Without you, none of it would have happened at all. Anyway, any idea on how long decrypting the network will take?' 'If I continue at this pace, I might have it cracked in maybe a week, but I might die in the meantime. If I ease up a little, maybe just under two weeks, as long as the system doesn't reset the encryptions in the meantime.'

'A week, got it,' I joke. 'As for me, well, it occurred to me that if I want to stop the forced killing of involuntary euthanasia clients then maybe I should, y'know, stop killing them. I'm thinking I should try and recruit some of the new clients I get from here on out.'

Art's expression is thoughtful as he chews. 'How will you know who is trustworthy? Furthermore, how did you know I and my father were trustworthy?'

'Luck of the draw,' I answer. 'No, after discussing it with my mother and father for the two weeks after my dad's selection before we met you, we decided we'd have to take a small risk. Your father is obviously still quite young and you're Gen One. I presumed you were genetically enhanced and those two factors seemed like they might work in our favour, so I just went with it when I met you.'

'I am torn,' Art says. 'On one hand, it worked out so well. On the other, I can't believe the start of your plan came down to "oh, well, these fellows look nice, they'll do." I am also torn about recruiting new clients. For the sake of minimizing risk, it seems best not to bring others into the plan, but for the sake of maximizing opportunities and giving hope to your clients, perhaps we should.'

'Maybe if we can research each new client I receive from now on?'

'What about your current clients?' he asks.

I suck air in through my teeth. 'At least half of them, probably closer to all of them will be, ah, terminated before we can make a difference. Out of the four new clients I've received since my father was selected, one is voluntary so that rules him out. Out of the three remaining, well, it might be worth investigating but I doubt they have anything to offer in the way of assistance and it would be best not to incriminate them with the knowledge of what we're trying to do.'

'How long have you been doing this job?' he asks suddenly.

'About fifteen years, why?'

'And you kill one client a week every week?'

'I get two weeks off a year. I killed fewer in the first few years, but adding in expedited clients, accidental deaths and a few other things it works out to around that amount. Why?'

'Just curious,' he shakes his head. 'I'm just working out the numbers with a little under ten thousand EEO's in this city alone. That's approximately twelve point five million deaths over a 25-year period. What percentage would you say are voluntary?'

'Off the top of my head? Uh, around ten percent, roughly. You're heading right to the point I've been thinking about all day. I want to make euthanasia purely voluntary, for people who want a death with dignity due to a medical condition. No more killing people just because they're old or probably going to die within a decade so we can free up space for new babies, each life is equal. However, if we reduce our rates to only those ten percent, we'd be losing just one point two five million people every 25 years.' I can't help but sigh. 'It's not going to be a popular opinion, but we're going to have to have bigger gaps between the Generations and maybe decrease the number of babies born with each Gen.'

Art has pulled out his comms and begun fiddling with some number as I've been talking. 'There were ten million babies born during Generation One,' he begins.

'Ten million and one,' I smile at him.

'Ten million and one,' he corrects, smiling back. 'From what I can work out, at a usual circumstance of two parents per child, one fifth of the population got to have a child. If we decrease it to one tenth of the population, so five million babies, and up the gap between Gens to fifty years, we'd be gaining two point five million people and losing one point two five million people every 25 years.' He rubs his face. 'It's still not enough. The population would still be increasing.'

'Okay, so, we're both aware there is a massive over-population problem. The population needs to decrease but we don't want to kill people who don't want to die. At one point two five million willing deaths per 25 years, that's fifty thousand deaths a year. Hypothetically, what is a reasonable amount to reduce the population by?'

'Oh, I don't know,' Art scratches his head and yawns. 'If we were to go gradual, let's say 4 babies born for every 5 deaths. What's that work out to per year?'

'You must be tired; that'd be forty thousand babies to fifty thousand deaths. In a city of one hundred million, the population would decrease by just 0.01 percent in one year.'

'Well, you said gradual.'

'I wasn't complaining. If we kept the Generation gap at 25 years, that'd be just a million babies each Gen, a tenth of Gen One.'

Art sighs, rubbing his eyes. 'It's not great but it's workable. It gives us a starting point to propose if we try and change the death and birth ratios so that only the willing are being euthanised and the population is still decreasing gradually.'

'Maybe if we made the Gens only ten years apart, so there were four hundred thousand babies being born every five years. It would give more people multiple chances at being selected to have a child whilst still decreasing the population by that 0.01 percent.' He yawns and rests his chin on his folded arms on the bench. 'This is all well and good, but we have no way of proposing this let alone putting it into practice.'

'Art, go lie down before you fall off your stool,' I tell him sternly.

'Yes, boss,' he murmurs. Rising, he crosses the short space and gathers the blanket around his shoulders before collapsing face-first into the still-made bed. 'Wake me up when it's safe for me to go home.'

Within moments, his breathing has become slow and the tension that has built up in his shoulders has melted away. Gathering my files and my tiny lap-desk, I relocate into my single armchair to work, to wait and to keep watch.

In the end, I do very little of any of those things as it is Art who wakes me when the sun is beginning to rise. Without a blanket, I've cramped up in several places throughout the night, even with Hooch's warmth nestled alongside me from knee to neck.

'You were supposed to wake me up!' Art exclaims.

Groggy, I can only do the first thing that comes to my mind. 'Hooch,' I say accusingly. 'You were supposed to wake me up so I could wake up Art.'

Hooch only huffs in reply.

'Sorry,' I say in a gravelly voice.

Art flurries around the room, the soft caramel locks of his hair fluttering in his wake as he gathers his small bag of tools. 'I can't believe I left my dad alone all night and now I've lost all this time, I'm going to be so far behind,' he stresses.

'Art,' I say gently, and then stop to clear my throat. 'Art, you're only human. You were at the brink of collapse, you needed the rest.' 'It's not about me; it's about my dad. I haven't left him alone overnight since before he, before he had...' Art stops, one hand over his mouth; he seems to be struggling to hold in tears.

'It's okay,' I soothe, struggling out of my armchair and from under Hooch's weight. 'It's okay, here's the last of your tools. If there's anything missing, tell me what it looks like and I'll give it to you next time I see you. If this happens again, I promise I'll do better.'

He sinks down onto the edge of the bed with his eyes squeezed shut. 'If something has happened, if something is wrong, it'll be my fault for not being there.'

I sit beside him, my hands grasping at the air as I debate what to do. Eventually, I give in and gather him into my arms as he rocks minutely. Tears seep into the sleeve of my shirt but I don't say anything.

'Here now,' I murmur. 'I'll call your dad and let him know you're safe with me and that you're on your way home. That way you don't have to stress on the way. Is that okay?'

His bony face nods into my equally bony shoulder; I can't imagine I have the best shoulders to cry on. Peering over Art's head, I dial with one hand, leaving my comms on loudspeaker.

Vincent picks up after the second ring, his voice carrying only the slightest slur. 'Morning,' he says. 'What can I do for you at this hour?'

'Hey, Vincent,' I say, conscious of the fact that the sun isn't even half over the horizon yet. 'I don't need anything; I'm just calling to let you know Art crashed at my apartment last night. He's on his way back home now, so keep an eye out for him.'

There's a rustle as Vincent yawns. 'No worries, thanks for calling.'

Disconnecting the call, I turn my attention back to Art. 'Relieved?' I ask. 'Your dad is fine, Art. Everything is alright.'

Art nods, pulling out of my arms. I shift away slightly to give him some space. 'Thank you,' he says, eyes lowered.

'There's no thanks needed. It took less than a minute and was infinitesimally easier than everything you've been doing for us. It's the least I can do.'

He stands, stooping to pet Hooch who has been watching the proceedings with little interest. Wordlessly, he accepts his bag of tools from me.

'I'll see you on Tuesday,' I tell him. 'At this early stage of your father's 52 weeks, it's still just meetings with a lawyer to draw up the Will. We have to keep going through the motions.'

Art nods. 'I understand. I'll keep building the retrans stations.'

'Take it easy, okay? I have this Wednesday off so we can't progress with tracking the signal at this point.'

He finally meets my eyes and gives me a slightly damp smile. 'I understand. I'll keep working on my project to deal with Winter, then. Or I'll keep working on decrypting the signal.' He sighs. 'Or I'll keep working on my own project.'

'Lucky boy,' I joke gently. 'So many options to choose from; here's another one for you: try catching up on some sleep.'

It's Tuesday before I see him again and though the marks like bruises under his eyes have faded, he still looks exhausted as the lawyer drones through the process of notating Vincent's every possession and marking it for either Art or Ana.

On Wednesday, though I'm frustrated with the delay in tracking the signal, I'm happy to have a day off to finally meet my father's EEO. The last two weeks have been some of the longest of my life, but time is slipping away. Briefly, I debate wearing my uniform to the meeting but it would be improper. I settle for taking my goggles and dog.

There's a hush in the building as I arrive at my mother's office and I take my time removing my goggles so that the software may catch the officer's name: Corporal Elliott Moreno, 56 years old, bracket B. I don't quite catch the lawyers name before my goggles are off and I'm shaking hands stiffly with Elliott.

'I'm so glad you could join us,' she smiles warmly. 'I'm Elliott Moreno, the officer assigned to your father. Please accept my deepest condolences on his selection. This is Wesley Green, the lawyer assigned to this case.'

I nod coldly, taking a seat on the couch and settling Hooch on the floor beside me. Elliot and Wesley seem unnerved by his huge frame and unblinking eyes. I don't want to prejudge these people; they're only doing their jobs just as I have done for the last fifteen years. However, I've never had another officer's family member as a client before.

My father sits stiffly, one fist planted on the floating glass coffee table. Today must be a bad day for his pain levels. The blue hose is connected to the port in his knee again, pumping coolant through the implanted tubing. The skin of the joint looks hot and tight, stretched thin over the swelling. Even seated, my father is a tall man and the sight of the coolant pulsing under the skin of his knee seems to be turning the lawyer somewhat green around the edges.

My mother arrives from the small kitchenette carrying a tray with a pot of lapsang souchong tea and five mugs. Today she is dressed for intimidation. There must be two-hundred-and-fifty thousand credits of diamonds on the hand she's using to lift the pot alone. Having seen the sleek gold chain around her wrist with my goggles on before, I know what Elliot must be seeing: dozens of absolutely minute chips and readers are worked discretely into the design. These are not factory standard, these are homemade by my mother herself with no manufacturing information available to Elliot's goggles. Paired with the tech the goggles will surely notice in my mother's earrings and the large alexandrite ring on her other hand, the effect is quietly unnerving.

'I'm afraid I don't have any milk or cal-sub,' my mother says sweetly. 'Is black tea okay? This variety is wonderful for remedying headaches.'

Elliot, to her credit, seems unfazed and I wish I had my own goggles on to observe her pulse and perspiration rates. 'Thank you,' she accepts graciously, taking a mug of the smoky brew from my mother.

Conversely, the lawyer Wesley is pretending to study the fine print of the Will he has displayed on his lap-comms. He refuses the offer of tea with a flash of a nervous smile.

Elliott sips her tea and makes a face of pleasure. 'It's wonderful, despite the intense scent of smoke.' She takes another sip and directs her attention back to me. 'I understand you are also an EEO?'

I give a single nod.

'Have long have you, ah, been in the business?' she asks.

'Fifteen years, yourself?'

'Just five years for me; I was a school teacher before this and I'll probably return to teaching in another five or so.'

'Dealing with children,' I shake my head. 'I'm sure after a single day I'd be wishing I was still an officer, if you catch my drift.' To her credit, Elliot does offer a small tinkle of a laugh, though she purses her lips tightly afterwards. She turns her attention back to the lawyer. 'Shall we continue with the Will, Wesley?'

Wesley stammers his agreement. 'We established what will happen with your finances last week, so now we must direct our attention to your assets.'

'Give everything to my wife,' my father states plainly.

Wesley clears his throat. 'As your wife is of a certain age, you are required to make provisions that will override that decision, should she, ah, demise before you. Typically, a descendant is named as beneficiary after a spouse?' He nods to me in acknowledgement.

My father shrugs. 'Do that then.'

Wesley gives a politely restrained cough. 'Perhaps you'd care to name a charity in your Will as well?'

'Nope.'

'Oh.'

My father remains distinctly unhelpful for the remainder of his mandated halfhour officer visit, regardless of Elliot's smooth attempts to progress with due protocol. Despite my father's obstinate nature, I'm frankly impressed with Elliot and the care she is taking of the case. As she and Wesley are taking their leave, I make sure to shake her hand again.

The mood in the room is markedly more relaxed after they've left, though my father keeps the pump connected to his knee. His frown is so intense that his eyebrows are almost meeting in the middle and sweat glimmers slightly on his temples despite the air conditioning.

I cannot imagine the amount of pain he must be in.

My mother sips from a mug of fresh tea, seemingly lost in thought. 'You know,' she says into empty space. 'If you don't let me get you something for the pain soon, I'm going to cut your knee open and see if I can't fix it myself.'

'Amputation seems good,' my father grumbles.

'It'll be at the neck if you don't do as I say.'

'Excuse me,' I bristle. 'Can we all just calm down here? Only one of us is authorized to kill people and that is me.'

My mother splays her fingers, studying first her nails and then her diamonds. She sniffs as if offended. 'Fine, we'll talk about it when you're not here.'

'Good,' I say firmly. 'Now then, let's talk about something that's actually important. How's your chili plant?'

'Still there,' my father says.

'No chillies?' I ask.

'We only planted it two days ago.'

'Oh,' I say. 'How long will it take to grow chillies?'

'It hasn't grown a stalk or even a leaf yet. It'll be months before we see any chillies,' my mother answers.

'Oh,' I say again, disappointed. 'Well, that's rubbish. Does it always take that long?' I open up the photo gallery on my comms. 'Look what Art gave me.'

My mother gasps and drags my arm into her lap so that she may see the photo better. 'It's beautiful! Oh, honey, you'll have to get him something in return.'

'Ma, I'm part of a secret rebellious uprising so that I don't have to kill his dad. Isn't that enough?'

My father fumbles for his reading glasses as my wrist is passed to him unceremoniously. He gives the photo a cursory glance. 'Definitely not enough,' he

C. ROPER, 2064037 Flinders University PhD Candidate says. My mother gives me a glance that reads I-told-you-so as she moves into the kitchenette.

Retracting my arm, I regain a civilized position on the couch. 'Anyway,' I say, mildly annoyed. 'Your officer seems more or less okay, dad.'

'Mm. How's things going with your secret rebellious uprising?' he replies.

'It's less of an "uprising" and more of a "tedious waiting game" but it's going okay. The retrans network is coming along slowly but surely. Last time I spoke to Art, he said he may have the signal decrypted within the next two weeks. Otherwise,' I shrug. 'Otherwise it's just a whole lot of dancing around trying not to get caught by Winter and continuing work as usual.'

'I wonder if the other officers whose family members were selected are also being tailed,' my father muses, dry-swallowing the tablets my mother brings him.

'No idea,' I say sourly. 'But I don't think Winter has any active clients while he's following me and my client list has been cut to allow me more time with you. Surely the loss of work from officers from both sides of the divide isn't made up by the five hundred or so family members of officers who were selected.'

'Not in the short-term,' my mother cautions. 'But if the family members of officers can be selected without repercussion in the long-term, then that opens up a whole new avenue for selection.'

'At least I know Winter has to sit in the heat during the day and the cold during the evening while he's following me, rather than his cushy officer's barracks.'

'What's the plan now?' my father asks.

I sigh. 'I hate to say "sit and wait like a passive waste," but that's pretty much how it is at the moment. It's easiest to track the signal when we know the send-point, time and size of what we're tracking, which happens on Wednesdays when I send my Euthanasia Reports. Until Art decrypts the channel, I'm just the inside guy.' I scrub my fingertips over my forehead with frustration. 'Once I'm allocated a new client sometime after next Wednesday, I may possibly begin bringing in new sources of help if they're suitable, but that's still at least a week away. I feel so useless.'

'Sweetness,' my mother says gently. 'Everyone has their part to play in this. Yours may not be the biggest part just yet, but you're definitely not useless.'

I stand and drain the tea. 'I understand, and thank you. I'm just itching to be active, though. We're already two weeks into this whole thing and I feel completely superfluous. Dad only has forty-eight weeks left and Art is almost dead on his feet doing the stations, working on the decryption and trying to do something about Winter. Plus, he says he has his own project he's working on, whatever that is.' Whistling to Hooch, I refasten his leash to his collar. 'Thank you for the tea, I'll let you know if anything changes.'

Chapter Seven

The next seven days pass in an almost unbearable state of frustration. I cannot wait to see the dawn of each new day as it brings us closer to progress, but it also brings closer the day of my father's potential death. The one bright spot in these seven days is looking forward to the euthanasia on Wednesday. Not only will it bring about the next step in locating the area from which orders are sent but it is also my first voluntary euthanasia in over six weeks.

Calypso Jovanovic is a woman whose body is failing her. For the last 50 years or so, she has slowly been wasting away due to myotonic muscular dystrophy.

At the age of 98, she decided she was ready to say goodbye.

Today she is turning 99.

'Calypso,' I greet her warmly. It is just past 7:30 AM. 'Happy birthday, my darling.' I bend to press my cheek against hers in a kiss.

'Thank you,' she smiles softly, working to release the muscles in her hands from the arms of her walker.

The mood in the hearse is different from usual; though there are still tears, they are tears of relief. Calypso sits propped amidst her ten closest friends and family members with a special support for her neck.

'I want all of you to be good to one another once I'm gone,' she says in her gentle manner. 'Take time for yourselves and always remember the good times. I wouldn't change for the world the joy each of you have brought me. I will always be thankful that I've had the time to prepare for the end and take it when I chose, while I'm still able to hold each of you in my arms and say goodbye with my own voice and in my own words.' She turns her milky eyes to me. 'Thank you for the time and patience you have given me over the last fifty-two weeks. When I was told I would need a pacemaker within eighteen months, I decided I'd had enough. What with my strength levels and troubles with eating and not to mention the drowsiness, I was done. I'm so thankful that you are the officer I received.'

As the hearse makes its way to the clinic, Calypso takes the time to speak quietly with each member in the party, leaving tears and smiles on the faces of each person. Eventually, the last person returns to their seat after helping Calypso with a sip of champagne.

Quietly, I offer her the standard calming pill, but she shakes her head.

'No, thank you,' she says. 'I know I won't remember anything after death, but I want to be alert this morning. Besides, I'm not scared, or even anxious. I'm excited and relieved and happy and sad and feeling a thousand other feelings at the prospect of being free from this disease.'

'You may not remember anything,' I say quietly. 'But I will always remember the joy you brought me each week. You are a bright spot in not only my life but also the lives of everyone in this vehicle. I will always admire your courage and strength, Calypso, and I thank you for sharing your last year with me.'

Calypso raises one wrist to dash the tears from her eyes, careful not to contract the muscles in her hand. She's a decade younger than my parents and the smile she gives me is beautiful.

At the clinic, she chooses to give up her walker and accept a wheelchair instead. The wasting disease is beginning to affect the bigger muscles in her legs and remaining seated in a wheelchair will save her some of the difficulties with her breathing and the weakness in her neck. Despite this, she still stands to hug each new mourner she encounters. I keep a careful eye around me as I wait. I know he has to be here sooner or later; it's merely a matter of time. Sure enough, my goggles catch a flash of grey robes that match my own behind the buffet.

A few moments later, a gleeful whisper: 'Hey there, fucktrumpet.'

Turning, I feign surprise. 'Winter? You again? How have I been stuck with you for my last three funerals?'

'No idea,' he dismisses my questions with a wave of his hand. 'Hey, are you still seeing that girl? You know, the one with the thigh muscles like *this*,' he holds his hands in an approximation of a huge circle. From this close, it's obvious tailing me is taking a toll on him. Minor dark rings underline his eyes.

'You need to get laid, buddy, if you're that heavily invested in my sex life.'

He guffaws in response. 'Me? Please, look at me.' He spreads his arms as if inviting my gaze to roam over his body. Raising my eyebrows and sighing in an expression of disinterest, I hate to admit that his physique and charisma make a great package. I shrug as if unimpressed and begin to turn away, but he stops me with a hand on my shoulder.

'What's with you?' he complains, all pretences dropped. 'You used to be fun.'

'What's with me?' I hiss in response. Suddenly, it's as if my quota for dealing with bullshit has been maxed out. Between the anxious anticipation of the last week, the frustration of being unable to leave my own home without being followed and the fear of losing my father, I've had almost enough. 'What's with *me*? My fucking father was selected for euthanasia five weeks ago and I have to deal with your bullshit every Wednesday.' I jab my finger into his bony sternum. 'Would you be "fun" if someone important to you was selected?'

His face drains of colour slightly. 'I'm a rank above you, my family members are exempt,' he says, but he doesn't sound certain.

'Oh yeah?' I challenge. 'For how fucking long, *Sergeant* Winter, because my family members were exempt five weeks ago, too. Get the fuck out of my face, I've got work to do.' My goggles pick out the flare of his nostrils and the drop of his jaw before he turns on his heel and storms into the Viewing Chamber. I'm almost certain they were reactions of surprise and fear, two emotions I'm suddenly feeling towards my own actions. I can only hope my outburst hasn't cost me anything.

Sweeping my hand over my face, I aim to wipe the anger from my features but the muscles in my hands seem determined to make fists. Breaking my own rule, I take one of the flutes of champagne and slam it back. The bubbles and the acidity of the vintage sit poorly in my belly and I swipe my tongue over my teeth to rid it of the clinging carbonated cat-piss.

From one of the staff-doors comes something that will surely add to the potent sourness roiling in my abdomen: a birthday cake.

'You've got to be fucking kidding me,' I whisper. Turning, I manage to direct an expression to Calypso that's close enough to a smile. Grabbing two more flutes of champagne, I make my way to sit beside her.

'Is something the matter?' she asks. It's killing me to see the worry in her milky brown eyes and I try to shake my head gently.

'Just regular officer stuff, sorry Calypso,' I apologise.

She carefully wraps her fingers around the stem of the glass I've brought her. Once my grasp is empty, she slips her other hand into my palm; her hand is incredibly fragile and I fear holding it too tightly will cause every tiny bone to shatter. 'You know,' she remarks quietly. 'There's a tradition with birthdays where you get to make a wish when you blow out the candles. Did you know that?'

'I did,' I admit. 'Though I can't say it's ever worked in my favour.'

'Well, seeing as it's my birthday, perhaps you can help make the magic happen just once,' she says. She purses her lips questioningly, raising her eyes to meet mine. 'It's the last birthday I'll get to have,' she adds, as if to sweeten the deal.

'I was always told telling someone your wish would ensure it will not come true,' I say cautiously.

'Oh, no, that one is definitely false,' she counters.

I take a wary sip of the champagne. 'Very well, what may I do to make the birthday girl's day special?'

'Tell me what's wrong,' she pleads.

'Calypso, not only is it your birthday but it is also your final day alive. You should really be spending it with friends and family.'

Her milky stare remains unblinking.

'Fine, fine,' I take another sip and scan the room quickly. When I speak again, my voice is lowered. 'It's my father. He was selected.' Even to my own ears, I sound defeated.

'Oh,' she says simply and the genuine tenderness in her voice gives rise to an odd feeling in my chest. It's almost like relief mixed with pain. 'I'm so sorry,' she adds and I'm surprised and saddened to hear the sorrow in her voice.

'Thank you,' I say, then clear my throat to rid it of the tightness of emotion. Nearby, function workers are attempting to light all 99 candles on the squat cake. 'If you don't mind, I'm just going to take a walk around and try and calm down.' Calypso nods sympathetically. 'Make sure you come back for cake,' she says. 'I haven't had cake in twenty years. I can promise you, I'll find a way to swallow it even if it's the thing that kills me.'

'Don't go putting me out of a job,' I say as I walk off.

Talking with Calypso has calmed me somewhat and I regret my outburst at Winter. He may be an absolute twat but I highly doubt the blame for my father's selection boils down to him.

As I expected, he hasn't strayed particularly far from me and is still in the adjoining Viewing Chamber. He's sitting in one of the two hundred velvet theatre chairs, his chin propped in one hand, an empty champagne flute in the other. He looks up as I enter and makes a motion as if to fend me off.

'No more,' he says dramatically. 'I cannot take another tongue lashing.' Though his words seem to be in jest, his heart doesn't seem to be in it.

I hold up one of the two fresh champagne flutes I brought with me. 'I suppose you don't want this, then.'

Winter peeks out from under the hand he's using to theatrically shield his eyes. 'Perhaps I could withstand just a touch more tongue lashing.'

Whilst climbing the ramp to his level, I consider my words carefully. 'Look,' I begin awkwardly. 'I'm sorry I blew up at you.'

'It's fine,' he says, and for the first time in all the years I've known him, he actually sounds sincere. 'I don't know what idiot part of me genuinely thought my family would be safe just because I'm a higher rank but those thoughts were exactly that: idiotic. If they've changed the rules once, they'll change them again. Thank you,' he adds, graciously accepting the proffered flute.

Faintly, I can hear cheering as the funeral attendees finish singing over the birthday cake. Soon it will be time for the speeches and I'm already on my third glass of champagne.

'How are you handling it?' Winter asks suddenly. 'The selection, I mean.'

Immediately, I stiffen, though I try to remain casual. 'I don't know if I'd call drinking too much and being angry all the time "handling it" but otherwise I'm handling it just fine,' I say guardedly.

He sets the liquid in his glass swirling with a flick of his wrist. 'Sounds about the way I'd handle it,' he says quietly.

I sigh and go to take a sip from my glass to cover my lack of response. The world around me seems to have gained that slight "blur" that happens when viewed through the filter of alcohol. On second thought, I take the glass away from my lips without drinking. I don't want to miss with Calypso's injection and accidentally not kill her.

A funeral attendant enters through a side door and offers Winter and me a slice of cake each with a shy smile. She's about 70 years old and very pretty with sweet dimples and hair the colour of cinnamon. Winter's fingers linger on the smooth skin of her wrist as he slides the plate from her grasp, smiling charmingly. Dropping her eyes and blushing, she doesn't see my nod of thanks as I take the second plate. Spoon in mouth, Winter makes a noise of approval as he watches the attendant walk away.

'Really?' I ask him. 'We're talking about the forced euthanasia of our families and you're admiring the lunch lady?'

Winter looks offended. 'I was appreciating the cake.'

'A likely story.'

C. ROPER, 2064037 Flinders University PhD Candidate The cake is an admittedly delicious carrot cake with buttercream frosting. The denseness is a welcome relief against the sting of champagne in my empty belly.

'Realistically,' Winter says suddenly. 'What can anyone really do in your situation?'

'Nothing,' I say, trying to sound wistful as I lick frosting off the handle of my spoon. 'I wish there was something I could do but we all know that once you've been selected, it's very rare to get a reprieve.' The way he's studying me out of the corner of his eye makes me feel like I'm a bug in his software and it's only a matter of time before he patches me. 'What would you do?' I ask him.

He shrugs. 'Quit, maybe. Hope for another earthquake like the one before Gen One. If they reach the population goal, they'd ease up on the selections.'

'I can't afford to quit,' I say. Something he just said is niggling at me.

'Oh, that's right. You don't live in the barracks, do you?'

'No, I've got a dog.' I wave my spoon in a general southerly direction. The game is frustrating, him pretending he doesn't know where I live, me pretending I don't know he's been assigned to tail me.

'A real one?' he asks with what seems like genuine interest.

'Yeah a real one,' I say, distracted. I scrape the last crumbs of my cake into my mouth and stand from the velvet chair. 'Well, Winter. Sorry again for snapping at you. I'd like to say it's been nice but I'd hate to lie to your face,' I smile to show I'm joking. 'I'll see you when I see you,' I say, retreating down the Viewing Chamber ramp.

Winter's voice floats down after me: 'Not unless I see you first.'

I can feel that I'm distracted while I'm causing Calypso's brain death. Inside my goggles, my eyes are staring unseeing as I slip the needle into her elbow, measure the correct dose and administer it through the IV port. Something Winter said is playing on repeat in my head as he and the attendants wheel away Calypso's body for the organ harvesting. Under the guise of composing my final report, I send Art a message and arrange to meet him at his place.

Outside, my hands are still on autopilot as they fumble for the cigarettes I'm trying to quit. I must look odd as I walk down the street in my formal grey robes with half my face concealed by goggles and my hands tapping a staccato over my body, checking each pocket over and over for my smokes.

My eyes finally feel as if they refocus when Art opens the door to his apartment and ushers me inside.

'Hey,' I say by way of greeting. 'What do you know about the explosions and fires that have been happening over the city recently?'

Art closes the door behind me as I nod a hello to Vincent at the table.

'Not a lot,' Art says. 'I haven't really been paying attention to them. Explosions and fires happen.'

'Not usually on this scale and with this frequency though,' I counter. Sitting at the table I strip off my goggles and wipe away the sweat that has gathered along the cushion that rests on my face.

'What are you saying?' Vincent asks cautiously.

'I think... I think they might be occurring deliberately,' I say. 'I know, it sounds ridiculous, but Winter said something that stuck with me.'

'Since when is Winter a trustworthy fountain of information?' Art asks.

'He's not,' I wave my hand in dismissal. 'But he said something about the pre-Gen One earthquake and the population goals that got me thinking.'

'I remember that,' Vincent interjects. 'Almost 250,000 people died. Do you not remember it?' He asks me.

'I do, but I hadn't made the connection to the population control program. I was only about 23 at the time, I wouldn't become an officer for another nine years.'

'What did you do before becoming an officer?' Art asks.

'Bits and pieces; some metal fabrication, some work for my mother's shop, sold some stuff. Anyway, I got to thinking and started pulling the numbers. There have been four major explosions over the last three weeks, resulting in over six thousand confirmed deaths.'

Art's face blanches and I note that dark shadows still linger under his eyes.

'There was another explosion about five weeks ago but only four hundred people died, so I'm not sure if it's connected or if any of them are connected for that matter,' I continue. 'Plus, there have been dozens of small fires over the city though they seem to be the standard electrical or waste fires.'

'What are you thinking?' Vincent asks quietly.

'I'm not sure,' I say slowly. 'Let's consider that the major explosions aren't coincidental, where does that leave us?'

'The pre-Gen Two population goal is reached faster with less public retaliation against the euthanasia program,' Vincent finishes. He shakes his head.

'No,' Art says, one hand over his mouth. 'Surely this is all accidental. Surely they wouldn't indiscriminately kill thousands of people in explosions. The structural damage, the injuries to emergency personnel, surely not.'

'Is it that inconceivable?' I ask him.

C. ROPER, 2064037 Flinders University PhD Candidate 'Dad, tell me you don't believe this,' Art turns to his father.

'Well,' Vincent hesitates. 'It's not entirely outside the realm of possibility.'

From inside my robes I pull out my lap-comms and unfold it to its fullest size. I always use my lap-comms for longer work. 'The first explosion killed a little over two thousand people,' Art pulls one of his tablets to him and begins a barrage of typing as I'm speaking. 'It happened in the Kaiser District and reports seem to indicate the explosion was caused by an electrical fire. The second killed over a thousand factory-workers in the Tyson District when a worker suffered a seizure and fell into the machinery. The third was in the Pei Li District and killed over fifteen hundred tenants of an apartment complex when a resident who was cooking fell asleep.'

Art takes over. 'The fourth was in the Hopper District and is presumed to be caused by a server overheating and catching fire.' He covers his eyes with one hand and continues in a strained voice. 'Nearly two thousand people were killed.'

Vincent places his good hand on Art's shoulder and squeezes it briefly. 'What about the smaller one five weeks ago?'

'Uh,' my fingers tap in the search. 'That one is apparently under investigation. It happened in the Dresselhaus District. It's suspected something caught fire on the solar panels, but nothing else is being said.'

Vincent grunts in acknowledgement, his eyes faraway in thought.

'What do we do?' Art asks me.

'What can we do?' I answer. 'We're trying to find a way to change the laws so that euthanasia is purely voluntary from now on. Applications open in a little under two years for Gen Two and a year after that there will be another population boom.' 'We know we need to cut the number of babies being born to be less than the number of people dying but beyond that,' Vincent shakes his head. 'I don't know how we're going to achieve it.'

'I think I'm close to decrypting the signal, and I caught the direction it pinged in again, so we just need to set up the next lot of stations, and oh,' Art gets up from the table and returns with a tiny glass vial. 'I finished this just this morning.'

Inside the vial is a tiny chip, about half the size of a grain of rice.

'What is it?' I ask him.

'A GPS tracker, for Winter. So we don't have to do the old one-of-uswatching-him-watch-you routine anymore. The only problem now is how we put it on him.'

'You can't put it in his food or drink?' Vincent asks.

Art shakes his head. 'No. Although it's in a protective shell, he will eventually pass the chip and we'd be blind to his movements again. I was thinking we could do something like the way your tracker chip was implanted in your palm, Dad.'

'He's hardly going to sit still for it,' Vincent says.

'Which brings us to the problem at hand, so to speak,' Art smiles at the pun.

'Well, two problems,' I interject. 'The implant gun is linked to the client database. The trackers are preloaded with a number of chips and the information is loaded onto the chips remotely, so I don't think we can use the gun, but,' I hesitate. 'But I could possibly make a replacement.'

'You? How so?' Art asks.

Pulling open a blank page on my lap-comms, I make a quick sketch. 'It'd be a fairly simple spring-loaded needle with a catch release trigger. It'll automatically fire

the implant when the trigger is released. To release it we just press it against what we want it to fire into.'

'How do we stop him from noticing he's being stabbed?' Art queries.

'Uh, well... I can make the device retract back under a sleeve or wristmounted comms once it's fired, but I'm not sure how we avoid him noticing the pain.'

'Punch him,' Vincent says simply. 'If he bleeds, you say the edge of your comms must have cut him. Get a couple punches into him and he won't even notice the implant.'

'How have we progressed from a stealthy GPS implant to me punching my superior?' I ask.

'You're making the mechanism and he's following you, so you punch him,' Vincent grins.

'But I just started getting along with the guy,' I argue.

'All the more reason to do it before he thinks you two are buddies,' Vincent answers.

'Art, back me up here. What if I lose my job due to fighting?'

Art holds up his hands in a sign of peace. 'Are you actually likely to lose your job over it?'

I nibble at a ragged thumbnail as I think it out. 'I don't know. I'm obviously under a lot of stress as I'm one of the first officers to have a family member selected. So they might be less lenient than normal to discourage future officers from fighting when their families are selected.'

'If me or Ana punch him, we go to prison or worse,' Art counters. 'If our fathers punch him, they'd probably get their fifty-two weeks cut a whole lot shorter.'

'Now that the immediate family members of officers are no longer exempt there will probably be a decline in the number of people signing up. They're not going to throw away an officer of over fifteen-years over one scuffle,' Vincent adds.

Art nods along with Vincent's reasoning.

'So that's it,' I say. 'You want me to go start a fight with Winter and maybe get my face punched in or even lose my job.'

'Hey, we only want you to do one of those things,' Art argues.

'Oh no, it's too late,' I throw my forearm over my eyes theatrically. Rising to my feet I begin to gather my goggles. 'Hooch and I will end up destitute on the street. I'll have to teach him to ride a unicycle and I'll have to learn to juggle to earn credits. We'll freeze at night, spending our time looking for other homeless people to kill and eat. But it's okay, at least we'll know where Winter is at all times.'

'Are there even any homeless people left?' Art asks.

'No, so you'd better learn to juggle quickly,' Vincent replies bemused. He presses the glass vial with the GPS chip into my palm. 'If you leave now you might be able to get to the unicycle store before it closes.'

Chapter Eight

Back at my own apartment, once I've changed, walked Hooch and showered, I begin building the spring-loaded implant device. Most of it will be made from scrap metal pieces I've scavenged or have left over from other builds, but I'll need to get the needle from my mother.

It takes me just two days to finish the device. It's slim enough to fit between my wrist and comms, protruding almost to the centre of my palm. If I grab or shove Winter the catch release will trigger, firing the implant into his body. As one spring is released it will trigger the other and pull the needle back into a shielded casing underneath my comms out of sight.

My heart is pounding as I flex my wrist against the unfamiliar presence of the makeshift implant gun. It feels flimsy it comparison to the one I use in my work, but it only needs to survive one use.

Down on the flat, Ana is waiting to meet me in the early Saturday sunlight. Judging by the smudges of dirt still faintly staining her hands and face she's showered and come straight to meet me after clocking off from the night shift.

'Are you sure you can do this?' she murmurs as she brushes her cheek against mine in a kiss. She's careful not to touch my hands.

'Yeah,' I breathe into the smell of soil, sweat and clean laundry. 'Yeah, I can do this. Are you sure you can play your part?'

Her face sours slightly in distaste. 'I'm sure,' she growls. 'It's pretty fucking demeaning, but I can do this. He's behind me, across the street in the café.'

'Good.' Careful to use my hand without the comms, I take her fingers in mine as we begin to walk. For an hour and a half we slowly meander first to and then around the mandated park of this part of the city, though it's less of a park and more of a concrete lot with a single tree. After another half hour of yawning as she stumbles along beside me hugging my arm, Ana gets fed up.

'This is fucking bullshit,' she murmurs in a sweet tone. 'Why hasn't that knobgoblin approached us yet?'

'He's never approached me while tailing me before,' I answer. I'm doing my best to look casual and relaxed as I lead Ana to a park bench. On it is a plaque which reads "IN HONOUR OF ROGER BUCKLESBY: WHO HATED THIS PARK AND EVERYONE IN IT".

'We knew this was a long shot,' I tell Ana.

'If that fucker doesn't come over in the next half an hour, I'm taking the needle and I'm going to go stab him in the dick with it.' She squeezes my arm, smiling at me adoringly before dropping my arm. 'I'm going to take a shit. If I'm not back in ten minutes, I've fallen in. Don't come looking for me, I'll be asleep.'

'I'll be thinking of you!' I call to her retreating back. As Ana saunters to the public restroom, I sit on the park bench and quickly become engrossed in the news feed in my comms, a stupid grin stuck on my face.

At the sound of her approach a few minutes later, I call out in a singsong voice. 'Welcome back, princess!'

Slumping onto the bench next to me and slinging an arm about my shoulders, Winter surprises me as he answers. 'I don't usually let people call me princess outside of the bedroom but I'll make an exception if you'll introduce me to your girlfriend.'

'Winter!' I exclaim. There's no need to fake surprise, I was sure the plan had been a bust. 'She's not my girlfriend,' I answer reflexively. Fuck, that was what we were meant to be pretending. Winter raises his eyebrows. 'Oh? She's just a fuck buddy then? Look at the balls on you to be out in public with the daughter of a client.' He grins at me as if we were co-conspirators and pulls an apple out of his pocket. 'Don't worry, I won't tell, but I have to ask. When she sits on your face are you ever afraid she'll crush your head? I swear that girl could collapse a steel drum with her thighs if she felt like it.'

I tell myself it's now or never as I jump to my feet, feigning anger. 'What the fuck did you just say to me?' I glower down at him.

Winter's eyes dart around as he hastily swallows his bite of apple. 'Whoa, calm down, it was just a joke.'

'No,' I say, dragging him to his feet with one arm. 'I'm sick of your fucking jokes, Winter. It's "fucktrumpet" this and "knobgoblin" that and sexual harassment not only at work but when I'm off the clock too.'

'I never called you a knobgoblin,' he protests, hands up in front of him.

'Is that all you can say?' I yell, just before my fist connects with his face.

Winter recovers from the punch quickly and launches himself at me. His own fist connects with my nose and something cracks in my face as we tumble to the ground. Scrambling to our feet, he turns to face me.

'Look, I'm sorry!' he says, palms outwards in a gesture to ward me away. He gags at the sight of my face.

Slick blood pours out of my nose and down my chin and shirt. Taking advantage of his weakness I strike him in the belly, one-two, with the knuckles of one hand and the palm of the other. The mechanism pinches the thin skin of my wrist as it retracts under my comms. It's triggered the implant.

Winter collapses to the ground, gagging not only from the sight of blood but also from the blows to his diaphragm.

'Stop it!' Ana screams. 'Stop fighting!' She grabs me by the elbow and drags me away from Winter's retching form on the ground.

As we make our leave, Winter's apple slowly begins to melt in the sunlight.

'Well, I feel like a fucking asshole,' I gargle through the blood as my mother pokes and prods at my nose.

'Shut up and hold still,' Ana growls.

'My sentiments exactly,' my mother murmurs as she inserts some sort of device into each of my nostrils. An intense stinging pain spreads through the front of my face as an antibacterial spray cleans off the clots of blood. Both of my eyes are streaming freely, the liquid mingling with the foamy bloodstained spray as it drains down my chin into a bowl. She withdraws that nozzle to replace it with a lighted probe. 'Your nose isn't actually broken,' she announces. 'And you don't have a septal hematoma. The soft tissue in your nose just split when you got hit, you'll be fine in a few days.' She withdraws the probe and hands me a towel to wipe my face. 'I'll get you something for the pain, are you working tomorrow?'

'No, it's Sunday tomorrow,' I answer. Gingerly wiping my tender face, I swing my legs off the surgical chair and sit up to face my father.

He pauses in scrolling through the news feed on his lap-comms. 'You idiot,' he says, and then returns to scrolling.

'Swallow this,' my mother says, handing me two green and white tablets. 'It's an analgesic designed to bring down the swelling and heal bruising faster. You'll have a nice long sleep with those in you.'

'Come on,' Ana says, rising from the couch. 'I'll make sure you get home in one piece.'

'Thank you, Ana; and thanks, Ma.' I try to sniff in derision at my father but only succeed in making a painful whistling noise.

I'm almost surprised to discover it's still only about midday when we leave my mother's shop. The heat shimmer is playing tricks on my eyes, making me stumble and forcing Ana to haul me up by one elbow.

'On your feet,' she tutts at me. 'I'm not carrying your ass home after a sixteenhour shift.'

'I'm fine, I'm fine,' I grumble.

The crowds of pedestrians are a lot thinner in the midday swelter and they part smoothly around us. I'm not sure if it's because of the extra room on the paths or the blood drying down my front, but I'm thankful for whatever it is.

Ana pulls my arm over her shoulders as I continue to sway down the path, my eyes squinted in the harsh sunlight. A tickle on the end of my arm alerts me to my comms vibrating.

'Can you check that for me?' I moan.

'No,' Ana says. 'It's locked to your fingerprint.'

'Oh.' Blindly reaching my other arm across her front, I succeed in opening the new message. 'What about now?'

Tilting my wrist, Ana is silent as she reads. 'It's from Art, he says he's sorry about you getting your face punched in. He's pretty certain the GPS implant is working as the signal shows Winter has returned to the barracks but not to the medical bay.'

'Only pretty certain?' I ask. The jostling of her steps hurts my face.

'It'll take time to be certain he hasn't noticed it and had it removed, but it's working at the moment,' she explains. 'Here,' she says, pushing me into a seated position on a step. 'Sit quietly for a moment; I'm buying a bottle of water. I'm fucking parched.'

'No, no,' I protest. 'It's too expensive, I have water at home.'

'Too expensive for you, maybe,' she says pointedly. 'Now sit, stay.'

'I want a cigarette,' I say, trying not to whine.

'Too bad; you can barely breathe through your nose and Art told me you're quitting.' She steps to the nearby vending machine and pulls out her fi-card.

Resting my elbows on my knees and my chin in my hands I know I sound petulant and sulky. 'Out of all the times I've been punched in the face, this is definitely one of them.'

Ana slams shut the hatch of the vending machine in exasperation. 'Remind me, how old are you again?'

Opening my eyes, I try to focus my vision on her. 'Forty-sev- wait, is that what I think it is?' Getting to my feet, I stagger to the steaming dumpster behind her and begin trying to haul out the gleaming metal. It crashes to the concrete in front of me and though I manage to jump out of the way, the action overbalances me and I fall on my ass. Turning, I beam at Ana in front of my prize.

'No,' she begins.

'Yes,' I say. 'Do you have any idea how much one of these costs?'

'No,' she repeats. 'It was in the dumpster for a reason.'

'Do you know who would love this?' I tell her.

'No,' she says sternly. 'It's dented and smelly.'

'You're right! It's Art! Your baby brother!'

'Absolutely not,' she says firmly. 'Put the garbage down and hurry up.'

Scrambling to my knees, I succeed in draping it over one shoulder before beginning the careful task of getting to my feet. I beam at her again.

'Great, wonderful, well done, now let's see you walk with it,' she says drily.

I manage four steps before it starts slipping off my shoulder and I side step into the gutter to stop it dropping. The sudden drop in elevation sends me sprawling back to my knees.

'You're as high as a fucking kite,' she tells me.

'Is that anything like a regular kite?' I ask her.

Lines form on Ana's face down from her nose to her mouth and thrusts out her chin and glowers at me. 'Give it to me,' she says.

'No! You'll put it back in the dumpster!'

'Do you seriously want this for Art?'

'Yes.'

'Then give it to me. I'll carry it, because you're off your fucking face.'

As I attempt to get to my feet once more, blackness rushes in around me and the world tilts away.

When my vision returns, I'm at eye-level with Ana's muscular buttocks; perplexingly, they're upside-down and moving. Ana herself is releasing a constant profanity-strewn mutter.

"... Passing out in the middle of the fucking street, making me carry your ass and your fucking garbage to your apartment. I should have left you in street."

From the hollow clang of each step, I can tell Ana is climbing stairs. The sound changes as she reaches a platform and I can't help but moan as she hoists me higher over her shoulder.

'Awake are you?' she grunts. 'Good, unlock your front door.' I slither off her shoulder and land awkwardly on my own as she lets me drop. Waving my comms at the sensor, my front door unlocks and the cool wash of air conditioning is a welcome relief.

'I think the back of my neck is sunburned,' I moan.

'Motherfucker, you want to complain about sunburn? I just hauled you and your shit all the way here and you're going to complain about sunburn?'

'My nose hurts too,' I moan slightly quieter. 'Hooch get back inside,' I flap at him and drag myself over the threshold. Pushing the door closed, I lean back against it and yelp in pain as Hooch presses his nose to mine in investigation.

There's a clatter as Ana throws her other burden into my single armchair. Bracing her hands on her hips, she tilts her head to each side, the joints in her neck crackling as she stretches out the stiffness. Bending at the waist, her boots clack open as she triggers the release and steps out of each shoe. In four or five quick motions she is completely naked, her clothes forming a damp pile in front of my armchair. Turning, she faces me. The fine sheen of sweat highlights the definition in her physique. I'm thankful it wasn't Ana that I had to try and fight as she could destroy me in a single hit.

'I assume your bathroom is through the only other door?' she says.

From my slumped position at the front door I can only nod tiredly with Hooch stretched across my lap. Ana disappears into the bathroom, though the sound of the antibacterial spray doesn't begin. After a few moments, she returns and her demeanour has changed. Gently shooing Hooch off my lap she pulls me to my feet and begins undressing me.

'Come on,' she says. 'You stink.' There's no venom in her voice though.

She drops my blood-soaked shirt into the sink where Hooch can't get it and guides me to step over the edge of the bathtub and into the shower. With one hand cradling the back of my skull, she gently cleans the dried blood off my face and chest. The antibacterial spray stings my neck and nose but I'm too disoriented to complain.

'When did Art give you the terrarium?' she breathes softly.

'About a week ago,' I answer.

Ana quickly sluices off the worst of my sweat, then guides me back out of the shower. Wrapping me in one of my towels she ushers me back into the main room of my apartment and into my bed.

It's close to eighteen hours before I wake again and everything is different. Ana left long ago, Winter's GPS location is displayed on my comms and Art has succeeded in decrypting the signal. What takes my attention is my news feed: there's been another explosion. This one was in the barracks.

By the time I stagger into Art's apartment it's almost midday again. If I wasn't so annoyed about my numb face and blocked nose, I'd be pretty peeved most of my weekend had passed while I've been asleep.

'Sorry, I hope you don't mind that I brought Hooch,' I mumble as I close the door behind me. 'I didn't get to walk him yesterday.'

Vincent's face has lit up at the sight of my dog. 'I haven't seen a dog in over thirty years, where did you get it?'

'I found him on the side of the road. I think his mother was one of the Military Police K9s. She'd been hit by a vehicle and he was the only puppy still alive.' Recognising praise, Hooch has laid his massive head on Vincent's knee, unabashedly basking in the adoration. Vincent's expression is odd as he rubs Hooch's ears. Art's eyes, though, are locked on the prize I found for him yesterday.

'Are you sure he's a dog?' Vincent asks.

'About as sure as I can be. He's got four legs and a tail, he goes woof, that's good enough for me,' I answer, groaning as I ease my scavenged find off my shoulders and onto the Wynne's sofa.

'Hmm,' Vincent remarks noncommittally. 'It's just that dogs looked different back in my day.'

'Maybe you're remembering it wrong,' I say crossly.

'Is no one going to mention the android?' Art asks breathlessly.

'Is no one going to mention that it smells and is on my couch?' Vincent says.

'Is no one going to mention that I got punched in the face yesterday?' I say,

straightening up to glare at the two of them.

'No, you're right, how is your face?' Vincent says.

'That's much better, thank you. My nose is blocked and numb but it's not broken. I should be okay in a couple of days.'

'There is an *android* in my *living room* on my *couch*,' Art half-screams.

'Yes, it's for you,' I tell him. 'I hear you decrypted the code, well done.'

'For me?' Art exclaims, raking both of his hands through his curtain of hair with shock. He rushes to the sofa and reaches out to touch the android's chassis.

'Yes, for you.'

'Where'd you find it, in a dumpster?' Vincent asks.

'As a matter of fact, yes. You're quite astute, Vincent.'

'Don't have to be a rocket surgeon to know it smells like shit,' he mutters.

'Dad!' Art cries. 'Do you have any idea how much one of these costs? If it was new and undamaged and had an AI it would be close to eighty million credits.'

Vincent chokes. 'Eighty million credits, for that hunk of junk?'

'Well, not this one,' Art says as he begins to clean down the android with antibacterial wipes. 'The most obvious problems are that the faceplate is dented in, the left arm is missing, the chassis is missing the front cover, some of the joints are shattered and it has no AI, but I could still sell it for around thirty-five million credits.'

'Thirty-five million credits?!' I exclaim. My stomach grumbles at the thought of never having to eat another Nutri-Soup again.

'For that piece of shit?' Ana says as she closes the door behind her. 'What makes it so expensive?'

'A lot of things,' Art explains. 'If it was whole, it would have close to 200 miniature motors, some of which use hydraulics and air actuators, as well as the peristaltic CCDs and the PMDs for the eyes, the microphones, the processors, the IMU for bipedal locomotion, the accelerometer, the proprioceptive and exteroceptive sensors, the-'

'I get it,' Ana shuts him down. 'When are we selling it?'

Art looks at her aghast. 'We're not selling it.'

'Why the fuck not?' Ana exclaims.

'I've been building an AI my whole life and I now have an actual full-size android to test it with and you want me to sell it?' Art says.

'Thirty, five, million, credits, Artemis,' Ana says.

'I'm not an idiot, *Diana*,' Art retorts. 'If my AI works, I could get a career from it, I could write papers and sell information about it, I could possibly sell the

C. ROPER, 2064037 Flinders University PhD Candidate framework for my AI, I could get grants and scholarships and all sorts of credits. It won't be a lump sum of thirty-five million credits, but we could have a guaranteed income for the future.'

'That's a lot of promises riding on "if" your AI works,' Vincent says gently.

'We also don't have a buyer lined up to pay that thirty-five million,' Art argues. 'There aren't many buyers that would pay for it as it is, I'd have to strip it to its parts and sell each bit individually. In its current state it's worth thirty-five million but buyers looking for something like this are few and far between. If I strip it down for parts and sell all the parts, we're looking at, oh, I don't know, twenty million in drips and drabs as the necessary buyers enter the market. It's impossible to tell if or even when any of the parts would sell.'

There is silence as Vincent attempts to resist Art's pleading stare.

'Oh, fine,' Vincent relents. 'Test your AI on it until you can work out buyers.'

'Congratulations, Art.' I can't help but smile at his joy. 'Now, can we get back to the matter at hand? You decrypted the signal?'

'Yes. Now it's decrypted we can work out where it's going and monitor information in both directions. Previously, we could only get the information you were sending. We can now get everything and if we place down two or three more stations we can work out the exact location.'

'I like that you say "we" as if you weren't the one to do most of the work,' Ana says drily.

Art looks wounded. 'I didn't do that much, I just monitored an algorithm program and adjusted it when necessary.'

Vincent clears his throat diplomatically. 'About that explosion?'

Ana takes a seat next to me and for the first time I notice how haggard she looks. Soot streaks her arms and neck. 'It was in a power station just outside the barracks for single officers. I don't have all the details yet but something went wrong with the biomass electrochemical converter. Anyway, the fire spread into the base. They're still tallying the dead, but the estimates sit at around 150 officers and another four or five hundred civilians. Emergency personnel are still on the scene working to control the blaze and treat the injured.'

'Winter is alive,' Art adds. 'He was off base during all this. He was in a residential district and dad and I suspect he was visiting family.'

There is a sombre silence as each of us digests the information.

'So,' I pause. 'So what do we do now?'

'I'm going to get some sleep,' Ana says. 'I've barely slept in a week and I suspect it's only going to get worse.'

Art has partially dismantled his android. 'I've done the signal and the GPS plant for Winter, we have six more retrans stations if we need them. I'm going to start scanning and printing what parts I can for Orion if no one else needs me.'

'Orion?' Ana asks.

'My android, his name will be Orion,' Art explains.

'What, was "Supermassive Black Hole" not celestial enough?' Ana quips.

'I didn't want him to be confused with your personality,' he retorts.

Vincent meets my eyes with a pained expression as I begin to gather my things. 'Don't have children,' he says. Hooch rises from his side to join me.

Art notices my movements and stands also. 'I'll send you the last known location of the signal if you want to take a walk past and start placing down these two or three stations. You'll need to take the train as it's about seven districts away.'

C. ROPER, 2064037 Flinders University PhD Candidate 'Can do,' I say. 'I'll let you know when they're set up.'

By the time I see Winter face-to-face again on Wednesday I've gained four extra clients and I can breathe through my nose again. Three of my new clients were some of the nearly eight thousand left without an officer by the explosion in the barracks. The clients of those one hundred and fifty-something officers were distributed between the remaining officers with most gaining one new client. With an already reduced workload, I was given three, plus a new client to replace Calypso.

Winter stiffens when he sees me and turns away slightly; he, too, has completely healed from our little fight. Colour flushes in his cheeks as he sips from his champagne flute. Opting for a glass of water while it's free, I decide to be the one to broach conversation.

'Hey,' I say. It's not a great opener.

'Hey,' he says. If I didn't know better I would almost say he sounded sulky.

'Listen, I'm sorry about the other day-' I begin.

'No,' he interrupts. 'You were right. I was going too far.'

'I still shouldn't have attacked you.'

'Sorry about your nose,' he shudders at the memory of my bloody face. 'I didn't,' he clears his throat. 'I didn't report the fight.'

Relief floods through me. 'Why not?'

'Because I need the income this job gives me, I can't afford to be suspended while they investigate the fight. And you're right, it was sexual harassment.'

For a moment I'm not sure I heard correctly. For so long I've been caught up thinking I was the only officer suffering financial hardship, as I was the only low-

level officer living off base. It never occurred to me that someone living on base could be struggling just as much as I was.

'Oh,' I say simply.

'It's my parents,' Winter continues quietly. 'They're both disabled. They do some work online but almost all of my income goes to supplementing them. I don't know how you can keep doing this job now that your father has been selected.'

'Because I need the income,' I say. It's not a total lie, I do need the credits, but it's also easier to shut something down from the inside.

'Well, in any case, I apologise for antagonising you,' he says. Standing, he drains his champagne flute and offers me his hand.

'And I'm sorry for punching you,' I reply. He pulls me to my feet and shakes my hand firmly once.

After I've killed my client, walked home, walked Hooch and showered, there's little to do as I watch the tiny red dot on my comms screen that shows Winter is outside my apartment building. Locking myself into my bathroom with my welding mask, a sheet of titanium and my tools, I begin assembling and hammering out the new faceplate for Art's android. Unfortunately, the rest of the android is a burnished gold colour, so the replacement titanium faceplate and chassis cover won't match, but it will make it more operational.

A little after midnight, the red dot finally moves as Winter begins to head home for the night. I wait an additional hour before slipping out with Hooch and the three retrans stations Art gave me. The rough beginnings of the android's face watch impassively as we leave.

At this time of night, there are seats available on the MagRail as Hooch and I board. Hooch folds his paws delicately and sits between my feet, eyes closed. Another passenger is observing him intently, seemingly uncertain if he is animal or mechanical.

Ten or eleven stops later, we reach the train station indicated by Art. His directions include three points fanning from the last known location of the signal. These points are more of Vincent's friends who are willing to house the stations. It takes less than two hours and a little whispering to reach each home and activate the new stations. When the third is complete, Art sends me the precise location of the building from which the signal is originating.

It's almost a disappointment when Hooch and I walk past the address, carefully keeping our eyes forward. It's a moderately sized secure structure of around two hundred offices and utterly nondescript in its appearance. From the corner of my eye I can barely make out turnstiles with key-card access lights blinking in the dim interior. In no time at all we've passed the building and we continue walking without looking back. It's an action I'll become intimately familiar with over the next three painstakingly slow weeks.

Chapter Nine

During those three weeks, Art watches the building during the day, monitoring and logging the motions of each of the two hundred personnel. After hours I pass by when the GPS shows Winter isn't near and track progress of the janitorial staff. Art and I amuse ourselves by giving names to any of the remarkable personnel.

Having just knocked off after another euthanisation and quickly changed into civilian clothes, it's difficult to keep a straight face as Art's voice comes through my earpiece. Once we began our reconnaissance he'd insisted on me locating it. In a matter of hours he'd disabled the keyword recognition software and attuned it to my comms and the program he'd installed for our communication network. I'm pressed into the lunch-time crowds on the MagRail and can't afford to start laughing.

'It's just gone midday on a Wednesday and you know what that means. Bingo Guy is heading out for his weekly game,' his whisper tickles my ear. Art had previously named him Affair Guy as he seemed to look so nervous each Wednesday, but after tailing him once found the man just enjoyed Bingo with his elderly mother.

Within an hour I reach Art's location in one of the cafes near the building and I can switch off the earpiece.

'What have you got for me?' I ask him.

Art rubs his face in frustration. 'Absolutely nothing, I'm bored shitless. They do the same thing every day. Detective Guy is seven minutes late every morning,' he says, naming a man who looks like a clichéd hard-boiled detective. 'Five-oh-Three Lady is out the door on time every day. I guess she still doesn't believe in working overtime. Imitation Leather Shoes Guy goes out for coffee every mid-afternoon and Long-Lunches Guy has four whiskeys with lunch and a bet on the races and I have absolutely no idea what goes on past the front door.' I nod at the group across the street as they re-enter the building. 'It's your favourite, Bitchy McBitch.'

Art smiles half-heartedly. 'Hooray.' His expression falls off as he lays his head on his forearms and his voice emerges muffled. 'What are we meant to do?'

Pulling out my lapcomms I bring up the document I'd been working on. Art raises his head with little enthusiasm.

'So we've ascertained that Overtime Lady is the last to leave at seven at night,' I begin. Art nods his agreement. 'And the janitorial staff arrive at nine at night. There are five janitors who seem to be the same five people every day.' Art nods again. 'Over the last week I followed home each of the five janitorial staff and then pulled their comms numbers.' Art straightens as he begins to puzzle out the plan.

'You want to pose as a janitor?' he asks.

'Yeah. I don't have all the details yet but I've got a poison from my mother that will incapacitate a person for a few hours. You will pose as their replacement and go inside, go through the janitorial process, find the server and then do whatever it is you do to get whatever it is we're looking for.'

'Okay,' Art begins. 'Two things, one, it can't be me to pose as the janitor. I'm Gen One and Gen One is all meant to have "good" jobs and being a janitor is seen as demeaning. It's bad enough Ana works as a labourer but no one would dare say anything to her face.'

'Well that's fucking stupid,' I argue. 'Janitors are the front line for a lot of infection control in hospitals, they enable "good" jobs to be able to work, they-'

'I know,' Art interrupts. 'It's not me you have to convince.'

'Besides, you're unemployed,' I add. 'How is that a "good" job?'

'Excuse me, it's called freelance work. Anyway, the second thing is the poor sap you poison. I assume you want me to intercept any call they make from their comms so the custodial company can't send a replacement, yes?'

'Yes,' I confirm. 'Then we steal their uniform and access cards. Then one of us poses as their replacement. Next issue, if it can't be you to go in, how do we know what to look for?'

'I think I can work around that. It might take me a little while but I should be able to make a device that will allow me remote access to the servers. All you need to do is find the server room and plug it in. When I'm done, you pull it out and that should be it.'

'Why do you keep insisting it will be me?'

'Who else do you suggest? One of our fathers?'

I dismiss him with a wave of my hand. 'Which janitor do we pick to poison?'

Art surveys the document I've been preparing and swipes back and forth between the information on the five janitors. Eventually, he stops. 'This one,' he says. 'Cameron Coineagan lives alone and is the closest to here so it will be the least amount of running back and forth throughout the night. What are you going to do about Winter?'

'I've been thinking about it. I have an idea but I don't like it,' I take a breath. 'I have one of the older style comms which don't have GPS tracking installed. However, if I understand our network correctly, they can more or less pinpoint my location any time my comms sends or receives data,' I switch to the next document I've been preparing. 'This is a rough schedule of each time I send out a report and each time I receive new communication. It's fairly infrequent as most of my work is just meeting with clients but if we want to keep our distance from this data theft, I need to be nowhere near when it happens.'

Art nods slowly, a frown pinching his brows as he follows my reasoning. 'So what do you suggest?' he asks.

'Because my workload is still reduced, I don't have a euthanisation scheduled for next Wednesday. If we can be ready in a week, you bring everything you need to my apartment and come in before Winter arrives to start tailing me. If you can take off my comms again, I'm thinking we can put them on your wrist. Any communications I receive will show I'm still technically at my apartment. I'll sneak out before Winter arrives and then we'll proceed with the plan from there.'

Art looks at my comms with distrust, his long fingers encircling his own slender wrist protectively. Tentatively, he nods. 'How will you poison the janitor?'

I rub my face, suddenly tired and switch back to the first document. 'The fire escape is immediately outside Cameron's window. I'll climb up that, poison the DingDinner machine, and then wait. Can you be ready in a week?'

'Yes,' he says. 'Intercepting the comms call should be simple enough. The hardest part will be lugging all my gear to your apartment. The remote access device will be time consuming but fairly straight forward.'

'Give me your hand for a moment,' I say. Without hesitation, Art places his hand in mine. With a few quick swipes on my comms and a scan of his fingerprint, it is done. 'You now have swipe access to my apartment.'

He smiles. 'I could already get in,' he says, his hand still in mine.

'Oh, fine, put your finger back on the sensor and I'll undo it then.' I make a show of returning to the settings menu on my comms screen.

Art grins and snatches his hand away. 'No, it's probably for the best that I cut down on the amount of laws I break on a regular basis. Thank you.'

'Don't thank me yet, I have something for you,' I say. Reaching under the table, I pull out the large bag I brought with me. 'Open it,' I tell him.

With a curious smile, Art pulls out the android's new faceplate. It's a smooth design with very little embellishment, only the hint of eyelids around the openings for the eyes. Art's mouth drops as he carefully places the faceplate on the table and draws out the new chassis cover. In the early afternoon sunlight, both pieces are a cold silver-white. Scavenged from old automotive parts, I've done my best to hammer and polish out any trace of their former life. The chassis cover is a clean shape flowing from the shoulder rivets to the overlapping plating of the waist that allows movement.

'You seem speechless,' I say to Art. 'It's not a bad look for you. I know, the android is gold and this is more silver, but-'

'Thank you,' he says quietly. 'It's perfect.'

Exactly a week later, Art is painfully chipper as he lets himself into my apartment. It's barely four in the morning and I hate mornings.

'Close the door,' I rasp from my cocoon with Hooch. 'You're letting all the warm air out.'

'Well aren't you just a ray of sunshine,' he says, his breath frosting on the air. 'I brought you a coffee.'

I grunt my thanks and accept my insulated cup from him. Next to me, Hooch is looking harassed. The equipment Art has been dropping off all week has taken up most of the available floor space in my tiny apartment. My bench has been cleared to allow him to setup his three primary screens and control console. 'Why is there so much stuff?' I complain.

Art glares at me. 'You make do with what you can find and repair.' He looks around the space with a sigh and wades through surge protectors, power packs, monitors and servers to my single armchair. After pulling a small tool case onto his lap, he hooks his programmers glasses over his ears and his eyes once again become massive black orbs and utterly unreadable.

'Wrist, please,' he says.

He seems more familiar with the removal of my comms, having done it once previously. After connecting two small devices he slips his fingers under my wrist to press on the temperature sensors. He clears his throat and I get the first hint of the nerves he must be feeling.

'Take your hand away, please,' he says softly. 'Now as I slide my fingers off the sensors, I need you to slide yours on.'

There is a strong contrast between our fingertips as I follow his instructions. One difference is our nails, his are smooth pink ovals whereas mine are ragged stumps.

Art orients the back of his wrist into my comms and motions for me to move my fingers. In a few short motions, it is done and he is now bound as I was only moments ago.

'It's heavier than I thought,' he says.

'Older model,' I explain.

Art takes a deep breath, stretching and rotating his wrist. From one compartment of his tool case he pulls a stubby plug.

'Once you find the server room, insert this and let me know,' he says. 'I'm not sure how long it will take me to get what we're after.'

C. ROPER, 2064037 Flinders University PhD Candidate I nod, distracted; the play of air on my bare wrist is an odd sensation. The feel of cloth as I slip the plug into my pocket is even odder.

'Are you ready?' he says and taps one ear to convey his meaning. Briefly, I again see the flash of the LED embedded in his earlobe. 'Have you got everything you think you might need?'

Turning, I show my earpiece is already in and connected to my personal backup comms. 'Yes mother,' I grin, tapping my pockets. 'Back-up comms, laser cutter, plug, poison, ear piece, screwdriver and hex-key set.' My bare wrist, the early morning and the hot coffee have me feeling out of sorts as I try to smile reassuringly, or maybe it's the nerves. 'Let's get to it.'

By the time I reach Cameron Coineagan's apartment building, it's nearly six in the morning. The heavy weight in my belly may have eased but the rising temperature of the day isn't allowing the relief to last and it is only exacerbated by having to jump for the lowest level of the fire escape. When I've made it to the seventh level I take a moment to catch my breath and ensure the apartment is still empty.

'Are you there?' I breathe to Art.

'Yeah,' comes his reply. 'I'm checking for any alarms. So far there's no fluctuations of energy so I'm pretty sure no one's home.'

'We've got an hour until Cameron arrives home from the other job sites.'

'Plenty of time,' Art says. 'The windows aren't alarmed.'

Inside, Cameron's apartment is as small as mine; just a single space with a bed, chair and bench with two stools and a bathroom off one side. I cringe as I put my booted foot on the neatly made bed and walk as quietly as I can to the DingDinner. It's a model 200. Nice.

C. ROPER, 2064037 Flinders University PhD Candidate With a bit of fumbling, I detach the back panel inside the machine and hook my hand inside the pollution chimney leading to the roof. Being careful not to touch it with my bare hands I unwrap the poison my mother gave me and shake it into the system's interior. The poison will be cooked directly into the food the next time the machine is used, causing a nasty case of vomiting and diarrhoea for less than 24 hours.

After a little searching, I locate one of Cameron's spare uniforms and retreat back to the landing of the fire escape, guiltily dusting both of my boot prints off the quilt cover as I exit.

There's a pleasant breeze playing around the metal platform and as the weather begins to warm with the rising of the sun, I can't help but to close my eyes, just for a moment.

The awful pain in my face and hands forces me to open them again and for the first time in over twenty years I am badly sunburned.

'Oh shit,' I moan. The paler skin usually hidden by my comms is worse than the rest of me.

'Huh?' comes Art's drowsy query through my earpiece.

'I fell asleep,' I answer.

Art's yawn is clear. 'Me too, sorry.'

'No, I'm sunburned,' I tell him quietly, conscious of the DingDinner humming in the apartment behind me.

'Oh shit,' Art says. 'How bad?'

'Pretty bad,' I whisper. 'Be quiet for a moment, the janitor is home and the DingDinner is running.' Wincing, I ease myself into a slightly shadier part of the fire escape. I can feel my temp reg chip pounding in my throat as it fights to keep my body at a survivable temperature. My head is pounding out of sync and I'm incredibly thirsty.

'How long until the poison takes effect?' Art asks.

'About an hour after being ingested,' I breathe. 'I see silence is not your strong suit.'

Art chooses to ignore my comment. 'Enjoy the sunlight, let me know when to intercept the call.'

For ninety minutes, sweat soaks my clothes as I huddle in the meagre shade afforded by the higher landings of the fire escape. Finally, at almost half past ten in the morning, I hear Cameron run for the toilet.

'We have splashdown,' I rasp to Art.

'Gross,' Art says. 'I've got the comms line connection, I'm just waiting for the call.'

It takes four emergency trips to the bathroom for Cameron to decide work may no longer be on tonight's agenda.

'Get ready,' Art says a few moments after Cameron has entered the bathroom again. 'The line is active.'

As I peer over the windowsill, Art's crisp voice fills my earpiece again. 'Clean and Gleam Custodial, employee or business services please?'

Cameron's voice echoes in the bathroom acoustics as I ease back into the apartment. 'What happened to the automated service?'

'We are currently undergoing a software upgrade. Employee or business services, please?' Art replies smoothly.

Cameron belches loudly as I begin scanning the small space for the custodial access card and ID. 'Employee, please. Cameron Coineagan, employee number three-seven-four-five-two-one-nine.'

'Certainly,' Art types rapidly. 'How may I help?'

Luckily, Cameron and I seem to share the habit of dumping our work things in the same space on our tiny benches. As I ease the ring of access cards off the laminate bench top, I wince at the splashing sound of chunks hitting water and the motion makes my head spin.

'I'm not going to be able to make it into work tonight,' Cameron gurgles.

The pitter-patter tempo of Art's typing guides me as I slip back out the window, making certain to dust off my boot print once again.

'I'm done,' I breathe, closing the window as quietly as I can.

'A replacement will be arranged, thank you for calling,' Art says and disconnects the line.

The climb down to street level passes in a nauseous blur. I vaguely remember stuffing Cameron's access cards into my bag with my stolen uniform before I'm somehow upside-down looking at Ana's ass again.

'Not this again,' I moan.

'Do you think I'm happy about this?' she grunts. 'Why do all of our interactions involve you lying down and me doing all the work?'

'I resent that,' I manage to mumble. 'Where are we?'

'We're almost to my place. You've got heat exhaustion, you dingbat.' Ana grunts as she heaves me higher onto her shoulder. 'I'd just gotten to sleep when Art called. How long did you spend in the sun?'

'About four hours.'

C. ROPER, 2064037 Flinders University PhD Candidate 'And you didn't have any water, did you?'

'No,' I admit.

'Idiot.' Ana fumbles as she unlocks her apartment. 'I set a cool bath to run while I went to fetch you. Go get in it, you're burning up,' she says, lowering me without ceremony.

'Thank you,' I say. 'And sorry about this.'

She dismisses me with a wave of her hand and strips to her underwear. 'I'm going back to sleep. You can join me when you're better. There's a large bottle of water and burn ointment in the bathroom.'

'Thank you,' I say again. The air conditioning soothes my burns as I strip off my soaked clothes. As I lay in the cool aloe bath, I switch my earpiece back on and reconnect to Art.

'Are you there?' I say quietly.

Art's reply is instantaneous. 'Yes! Are you okay? Are you with Ana?'

'I'm fine. I've got the uniform and the access cards and a lovely case of heat exhaustion and sunburn, but I'm okay.'

'We should have seen this coming,' he says.

'It's okay. I've been burned before. I'm going to rehydrate before heading back later.'

'Alright,' Art's relief is palpable. 'I'll reconnect to you at around seven tonight.'

Sipping my water, it isn't long before I'm asleep again. This time in the sticky embrace of the aloe bath.

Ana wakes me just after five in the afternoon.

'Get up,' she says, reefing the linens off me. At some point in the day I have made my way into her bed. 'You have to eat breakfast and drink more water.' She hands me a tray of food and punches a number into her DingDinner. The tray is a breakfast all-in-one, synthesised scrambled eggs, bacon, hash browns, fried tomatoes and stewed mushrooms. It's more food than I would eat during an entire day and would probably cost me a whole day's credit allowance.

Ana plonks a large mug of coffee and another bottle of water beside me and I'm embarrassed by the imaginary price tag associated with each item.

'I'm sorry about all-' I begin.

'Shut up and eat,' Ana interrupts. 'You've got work to do.' She's already dressed in her reflective jumpsuit. 'Do you have everything you need?'

'Yeah,' I mumble around the fried tomatoes. 'I think I'm over the heat exhaustion too.'

'Just drink the water. I don't want to hear any complaints.' She rises at the musical chime of her DingDinner and fetches her own meal.

After eating, I return to the bathroom to assess the damage. My skin is tender and radiating heat. Small blisters have formed on the thinnest skin of my face and hands and everything is coated in a tacky film of aloe.

'You look like shit,' Ana says from the doorway. 'Now get out of my apartment.'

'Thanks Ana,' I reply as I gather my things. 'Second degree burns to the face must be the most fun we've ever had together.'

Ana grins at me and points to the door. 'You, out, now.'

The sun is beginning to set by the time I make it back to the location and it's just passed six in the evening. I have three hours to observe the building and sip the water with which Ana sent me.

Right on schedule, Overtime Lady is the last to leave at seven and I slip into a public restroom not long after to don my stolen uniform. As I'm a little taller than Cameron, the jumpsuit pinches in the crotch and bares my ankles but it will have to do. Just before nine, the other four janitors gather outside the main entrance and now it is finally time.

'Have you got the remote access plug?' Art's voice is startling in my ear.

I pat the pocket into which I've zipped it. 'Yeah. I guess it's time.'

As I approach, Jolyon Nash, male, 128 years old from bracket D looks up. 'Where's Cameron?' he asks.

'Sick, I guess,' I answer. 'They've sent me over for just the night.' I shake first his hand, then the hands of the other three janitors as introductions are made.

Dominique Martinez, female, 75, from bracket D touches a finger to the tip of my nose. 'Been spending a bit of time in the sun, have we?' she teases.

I try to smile but the crinkling of my skin hurts. 'You've got to take work where you can get it. Shall we?'

Satoshi Iori, male, 82 and also bracket D flicks his eyes to me. 'Have you worked this site before?'

'No, sorry,' I answer as Ella Belleci, female, 99 and bracket D guides us into the building. 'I'm usually in, uh, waste management so I'm under your guidance. Just tell me where you want me.'

Dominique grins at me in a predatory manner. 'Maybe after we've finished this shift.'

C. ROPER, 2064037 Flinders University PhD Candidate For the next hour, Jolyon sets me to sanitizing all the control panels, door handles, desk surfaces and bathrooms of the upper three floors as he steams the carpeting. My frustration is palpable as the minutes steadfastly increase on my handheld comms. Finally, he calls for a smoke break on the rooftop and I suspect my chance may be now.

Dominique, with her glowing cigarette in hand, corners me near the safety rail of the rooftop space. 'What time do you get off tonight?' she asks.

For a moment, I can't answer. The cigarette smoke is almost intoxicating and I swear I can feel some hidden tension in my brain release. My fingers grasp for the imaginary cigarette they're holding and the muscles around my lips twitch in anticipation of taking a drag. Realising I've been holding my breath, I turn my head to one side to cough. 'Ah, this is my only shift tonight,' I finally answer.

'That's a shame,' she says and takes another draw of her cigarette. The smoke sears my eyes and I can't seem to stop staring at the burning ember dangling from her fingertips. 'What time do you get off after that?'

Realising what she's said, I splutter for a moment. 'Ah, I, uh,' I stumble.

'Relax,' she grins. 'I'm not looking for a relationship, just some fun.'

'I, ah, I'm trying to quit smoking,' I blurt lamely. 'I'm going to go back inside and get some water.'

I can feel her eyes caressing my ass where the jumpsuit is carving it in two as I make my retreat and I'm not sure if the heat I'm feeling in my face can be entirely attributed to the sunburn.

'Wow,' Art remarks inside my ear. 'Very smooth, well played; how old are you again?'

'Shut up,' I hiss as the electric doors permit me back into the building's top floor. 'What do you want me to do, take her out for a nice dinner, bring her home to my parents, get married and have a child?'

'If you could have let her down-'

'Not jealous are you?'

'Shut up and find the server room,' Art hisses. 'If you'd let her down, there would be less chance of her coming to find you now. Where are you?'

'In the elevator, heading to the levels we haven't cleaned yet, looking for the server room. Any hints?'

'It's likely be in the basement, if there is one. If not, it won't be with all the usual offices as it's more of an IT area and it won't need to be particularly accessible by the regular offices.'

The elevator chimes on arrival of the third floor and I keep my finger planted on the OPEN DOOR sensor as I peer into the dim level. It's an exact replica of the three floors above it.

'Not here and there's no basement,' I tell Art.

'My guess is on the ground floor then,' he says.

The second and first floors are again identical to those above them. On the ground floor I reluctantly leave the light and security of the elevator to begin poking around for anything resembling a server room.

'I doubt it will be outside the safety of the turnstiles,' I whisper more to myself than to Art. 'So it must be somewhere back here.'

Upon entering the building and passing through the turnstiles, workers are immediately presented with a wall of elevators and a single sign pointing toward the stairwell hidden at one end. Having been on the upper levels, I now know there must be more rooms behind the elevators. The lowest landing of the stairwell has a freeswinging door separating it from the lobby and a swipe-access door separating it from whatever is on the other side.

'I think I've found it,' I breathe and pull out my stolen swipe cards.

Gaining access to the room is simple enough when the green LED grants 'Cameron' permission to enter but a problem is immediately evident. The banks of servers are locked in cages with old-fashioned padlocks and all of Cameron's keys are swipe cards.

Art swears when I describe the problem to him. 'Do we come back tomorrow or another day?' he asks.

'No,' I answer him. 'It'd be too suspicious for Cameron to get food poisoning and be replaced by me twice. I have to get into it tonight and I'm running out of time. How often would the servers actually get unlocked?' I ask.

'Not often,' Art explains. It's more to prevent tampering, either malicious or accidental, like if the janitors dislodged connections or something.'

'Okay,' I breathe. 'I have a plan but there are complications.'

'What is it?'

Nervously, conscious of the passage of time, I finger my handheld laser cutter in my pocket. 'I'm going to cut the hinges of the cage door but I'm worried about smoke detectors. My laser cutter has built in filtration and cooling but I usually only use it on a lower setting for etching.'

There's a rustle in my earpiece as Art presumably rubs his face. 'I guess we don't really have any choice. Make it quick.'

Pulling my slim line welding goggles from the chest pocket of my stolen overalls I take a deep breath before I begin. The guide-light is a colour my father calls sky blue but it quickly becomes a blinding neon violet as I depress the trigger for the laser. Though the cutter is working at full capacity to filter away the smoke, the smell of hot metal is still strong. I can feel sweat dripping down my neck as the seconds pass painfully slowly until finally the bottom cap of the first hinge drops and sizzles on the carpeting. Quickly, I stomp on it to quell the burning and avoid setting fire to the building. An ache spreads in my hands from squeezing the trigger as I cut through the second hinge. Finally, the third cap falls to the ground but I know I stink of burning metal. Placing down my laser cutter to cool, I grasp the top cap of the hinge pins and pull them from their sockets, leaving the cage door to only be held on by the padlock.

'I'm in,' I tell Art and stab the stubby plug he gave me into the corresponding input. 'It's up to you now.'

I slow as I make my way back onto the rooftop to the other janitors. Each of them has a face of shock as they look at me and something is wrong on the air.

'Where have you been?' Satoshi asks in a hushed voice.

I shake the 250-credit bottle of water in my hand. 'I went to get a drink and it took me a while to find a vending machine. What's wrong?'

Ella points to a gap between nearby buildings. In the distance, something is on fire. 'There's been some sort of accident,' she says quietly.

I can feel my face blanch under my sunburn as realisation hits: Cameron's apartment building is in that direction. The strength goes out of my legs and I sit down heavily on the concrete bench, one hand rising to cover my mouth. 'What... what do we do?' I ask.

It's Jolyon who answers as he scrolls through his news feed on his comms. 'I think we finish the job. The wind reports indicate we're not in any danger here so we finish what we're here to do. Any objections?'

Slowly, each person consents to the plan and after several minutes of sombre silence, Jolyon leads us back inside.

As I'm scrubbing the third floor sinks, Art's voice filters into my ear. 'I know you can't answer right now, but if you're thinking what I'm thinking, you're right. It's Cameron's apartment building.' He's quite for a few moments. 'Nothing is certain in the news yet about how it started, but casualties are confirmed.' From the strain in his voice, I can tell he's crying. 'Do you think something we did caused it?' His voice goes softer. 'Do you think someone is trying to send us a message?' It's breaking my heart to hear him so hurt but I'm unable to reply with Jolyon repairing the toilet filtration system behind me.

The cleaning and maintenance of the third, second and first floors pass in almost silence. Directions are given in soft voices and progress is slower than the upper three floors. Finally we reach the ground floor and the relief I'm feeling at collecting the plug and heading home is palpable. My back aches, my crotch is chaffed, my burns are oozing and my hands are stinging from the cleaning chemicals.

Jolyon sets me to buffing the polished concrete floor as he and Ella work to repair a malfunctioning turnstile. My heart is pounding as I watch Dominique and Satoshi working their way toward the server room. Art's voice is a nervous titter in my ear. 'We're running out of time, it's almost one in the morning and you'll be done with that shift soon. I've nearly finished the download, you need to get the plug and get out of there.' When the last panel is replaced on the repaired turnstile, Jolyon stands and stretches the stiffness out of his back. 'Well,' he announces. 'We might call that a night.' My stomach clenches in panic.

'Oh!' I say, patting my pockets. 'I've lost my comms somewhere.'

Satoshi groans. 'What does it look like?'

'It's an old SkyWave about this big,' I say, gesturing with my hands. 'It might have fallen out of my pocket on the roof, I'll be right back.'

Dominique eases onto a decorative sofa, rubbing her lower back. 'We'll wait here, don't take so long.'

I'm conscious of Jolyon's eyes bearing into my back as I hit the call button for the lift. Once inside, I shoot him a small smile as the doors close. Quickly, I hit the button for the first floor and when it lands I dash across to the stairwell and climb back down to the ground level. Wincing at the beep emitted by the swipe access permitting me into the server room, I ease the door closed and make my way to the cage with the broken hinges. The clatter of the door on its padlock makes me grimace.

'Are you rea-' I say to Art.

'I'm done,' he says at the same time.

Snatching the plug, I stuff it and my cooled laser cutter into my pocket. My hands are shaking as I jam the bottomless pins back into the hinge sockets. Other than the smell of hot metal still lingering on the air, it would pass a casual inspection. The door may even still swing on the hinges; it'll have to do for now.

Once I've made my way back to the elevator and hit the call button, I heave a massive sigh. 'I'm glad this is over,' I tell Art as the elevator chimes upon arrival.

'Glad what is over?' Jolyon asks as the doors part to reveal him.

'Just this whole day,' I say, entering the lift. I've never been so glad as I am now that only EEO's get goggles that show people's heart rates, because mine is through the roof. 'The sunburn, working an unfamiliar site, the accident,' I nod my head in the general direction of the flaming apartment building. 'What a day,' I say.

Jolyon grunts noncommittally and staggers as the elevator decelerates to land at the ground floor. 'Found your comms then?' he asks. 'You weren't on the roof.'

Taking my comms from my pocket, I show him with a weak smile. 'Must have dropped it in the bathroom,' I explain.

Jolyon grunts again and we catch up with the other three janitors. 'Thanks for your work today,' he says. As he shakes my hand, his eyes seem to be searching for something in mine. 'Don't cause any trouble on your way home.'

Something is left when he withdraws his palm from mine but I don't chance a look until I'm several blocks away.

It's the three hinge caps.

Chapter Ten

On Saturday, my wrist still feels awkward. After its brief respite from my work comms, it seems to be rejecting its reimprisonment. The burnt skin underneath stings where the sweat pools from the exhaustion of walking to Art and Vincent's apartment in the morning heat.

Ana is the first to greet me. 'You look like shit,' she says.

'Thanks,' I say. 'I know.' My skin is flaking off all over my face, particularly along the bridge of my nose where thick scabs have formed. The scabs crack periodically, leaving bleeding fissures.

Behind Ana, Art has Vincent on the couch, a bloody scalpel in hand.

'Is this something I should be concerned about?' I ask Ana.

Ana rolls her eyes in response.

'There,' Art announces. 'All done, dad.' He drops something small and metallic into a shallow container of solution and begins to stitch a small incision in Vincent's earlobe.

'Thank fuck for that,' Vincent swears. 'Why did I ever agree to this in the first place?'

'Because Art wouldn't stop begging,' Ana quips.

'Because you're an excellent father,' Art says, glaring at Ana. A tiny sticking plaster belies a similar injury on his own earlobe, the one I've occasionally glimpsed flashing with an LED. After smoothing the plaster onto Vincent's ear, Art strips off his gloves, sanitises his hands and dons a new pair.

'Your turn,' he says to her.

'Oh great,' Ana drawls, taking a seat at the dining table. 'I can hardly wait.'

'You know I have a scalpel, right?' Art says as he swabs Ana's ear with a sterilising wipe.

C. ROPER, 2064037 Flinders University PhD Candidate 'Just get on with it,' Ana sighs. She makes no reaction as Art dips the blade into the flesh of her earlobe, butterflying the soft tissue.

'Is anyone going to tell me what's going on?' I ask again.

Art takes a pair of angled forceps, pulls a small chip from Ana's earlobe and deposits it with Vincent's in the solution. Wiping away the blood, he begins the process of stitching. 'These chips have been monitoring our brain waves for the last six years. I'm hoping to incorporate the patterns into my AI to make Orion more autonomous and sentient and lifelike.'

'You let Art cut you open and stick a random chip in your ear when he was sixteen years old?' I ask Vincent.

'Apparently I'm an excellent father,' Vincent explains wearily.

'I guess that makes me an excellent sister,' Ana says as Art finishes smoothing the plaster over the tiny stitches.

'Yes, and I'm very appreciative of you both,' Art soothes, and then switches his attention to me. 'But I assume you're here about the results of our data theft?'

'Not in so many words, but yeah, what have you found?'

Art strips off his gloves and sanitises his hands and every surface his tools have touched as he speaks. 'A lot of things, none of them good; I guess Nova is going to owe Yon some credits.'

'Meaning?' I ask.

'The data contains an algorithm to purposely select lower socioeconomic brackets for termination more than the higher brackets.'

'Those cunts,' Ana says eloquently.

'How bad is it? There's no mistake?' I ask.

Art shakes his head. 'There's no mistaking it. It's written into the coding. The ramifications are bad for everybody in bracket D getting selected but good for us.'

'Good how?' Vincent cries explosively.

'Because we now have concrete evidence,' I explain. 'And with it we can force a reassessment of the laws and force them to be abandoned immediately. If they were playing by the rules, our job would be a lot harder.'

'How bad is the selection bias?' Ana asks Art. 'How have they managed to hide it for so long?'

Having finished cleaning, Art takes a seat next to Vincent on the sofa and pulls up a table of data on a nearby tablet. 'The selection bias is pretty bad, but it's been well hidden because of the huge differences in the populations of each bracket. In our city, Bracket D is fifty-four percent of the population and around fifty-four million people. By law, each bracket should have an equal percentage selected for termination at twelve-point-five percent or one in eight people. By making a tiny adjustment to the biggest bracket, bracket D, and changing it to thirteen-point-four percent of people, they've increased the odds of being selected to just over one in seven people.'

'Am I wrong or does that not seem too bad?' I ask.

'Hence why it was so easy to hide and hard to pick up on,' Art explains. 'Forget about bracket C, they've maintained the one in eight odds of selection,' he dismisses that row of the table and moves onto the next. 'Now look at bracket B. Bracket B is only fifteen million people and the odds of selection have been adjusted to a little over a one in ten chance of selection. I know, it doesn't seem like a lot, yet but bear with me,' he switches to the final row on the table. 'At only one million people, bracket A is tiny. The numbers have been adjusted so that if you are bracket A, you have only a one in sixteen chance of selection.'

For a moment, we're all silent as we take in his words.

'So,' I begin tentatively. 'If you are bracket D you are more than twice as likely to be selected than if you were bracket A?'

'Yes,' Art says simply. 'It's hidden in the population numbers. Officers and clients alike would assume that everything is going accordingly to the law because it's hard to pick up on the differences in selection when the differences in population are masking it by being so huge.'

'And I've been contributing to this,' I say, feeling sick.

'There's no way you could have known,' Art argues. 'The algorithm is specifically designed so that EEO's are paired with clients of a similar bracket. So most of your clients are bracket D because you're bracket D. There is literally no way for you to tell that you're receiving more bracket D clients than you should be.'

'What now?' Ana asks, and her voice is as hard as chromium.

'I looked into the coding and I was able to figure out who made it.'

'And?' Vincent says.

'The Minister for Social Services, Seraphina Vega.'

'Her?' I ask Art. 'But she's nobody. She's in charge of keeping housing up to date with the population.'

'No,' Vincent interrupts. 'She's also responsible for the aged care sector, disability support, the Generations Program and the food, water and credit rationing.'

'She's the one meant to be dealing with the food shortages?' I ask, feeling foolish. 'Is her plan really just to kill off a heap of bracket D?'

'Well, with less mouths to feed, the food will stretch a little further,' Ana says drily. 'It's not the worst plan I've ever heard.'

'Ana!' Art says. 'It's an awful plan! Besides, the way the algorithm is written, the same number of people are dying, it's just shifted the percentages of *who* is dying.'

'So how do we figure out her actual plan?' Vincent asks.

'I'm not sure there is a plan beyond the current situation of rations and reducing the population,' Art says thoughtfully as he begins to clean off the chips he extracted from his family's earlobes.

Ana yawns. 'Between all the explosions and having to work triple shifts, I've got just enough energy left for option A: kill her.'

'Ana, you can't kill her,' Art says in exasperation.

Ana flicks her eyes to me. 'Well, I can't kill her, but we do know someone who kills for a living.'

'I'm not killing her,' I protest.

'We're not killing anyone,' Vincent growls.

'Well if we're not going to kill anyone I may as well go and get some sleep,'

Ana says. Her chair scrapes on the concrete as she stands. 'Call me if we change our minds on the whole killing thing.'

'What are you going to do?' I ask Art, whose eyes are practically dancing.

'I'm finally going to fire up Orion,' he says.

'A nap sounds good,' Vincent says and excuses himself as well. 'Try not to bring about the Singularity while I'm resting.'

'Come with me, he's in my room,' Art says.

The Wynne's apartment is about three times the size of my own. Whilst mine is a single bedroom open plan box, the Wynne's have two bedrooms and a living/kitchen area.

'You and Ana used to share this space?' I ask as I step over a dismantled tablet laid just inside the doorway. The only remaining trace of Ana's influence on the room is a shelf of items presumably uncovered in excavation: cloudy glass bottles, rusted metal trinkets and a few small fossils.

'Yeah, for nineteen years, it was,' he pauses. 'Difficult.'

Neat towers of compartmentalised toolboxes reach almost to the ceiling, each carefully labelled with its contents. Most of the remaining space is dedicated to the bed, which butts up against a crowded desk. Orion stands in one corner.

'How'd you get it to stand?' I ask.

'I just charged him and manually activated the balance controllers. Watch,' he says and pushes Orion lightly in the chest. Orion sways backwards but corrects to an upright position.

'And now you're going to turn it on?'

'Once I transfer all the brainwave data into my AI program, yes. It should mould his personality and reactions to be more human. He'll be a compilation of Ana, dad and me. He'll have reasoning, emotional responses to stimuli and likes and dislikes.'

'And you did all of this when you were sixteen?'

'Fifteen really, it took a long time to convince Ana and dad to take the chips. The AI program I've been working on ever since. Now that I finally have an android, I can test my code to make sure everything works. Recently I put in his name in anticipation of this and ran the software virtually, but nothing will compare to being able to see him in action. Here,' he gestures at his bed. 'Take a seat, I shouldn't be too long.'

It's a stark contrast to my apartment as I cross the bare floor to sit on his neatly made bed. As I take in the towers of boxes, some labelled in the shaky writing of a child, Art plugs the three chips into a reader connected to the main setup on his desk. As the transfer begins, he catches me staring at him. 'What?' he says. 'What are you looking at?'

'You,' I say. 'You're very impressive.'

Art's mouth opens and closes, and a smile pulls at the edge of his lips. His eyes drop from mine and he clears his throat just as the transfer beeps in completion.

He clears his throat again and ejects a different drive from his setup. 'Ready?' he asks me.

I grin at him. 'Nice save,' I nod at the android. 'Let's do this.'

Crossing the small space, Art slips his fingers under the androids jaw and depresses a hidden button for five seconds. The faceplate glides smoothly out and up, revealing Orion's bare skeleton and brain. Once he's slotted in the drive, he presses another button and the faceplate swings back into place.

'How'd you get all the dimensions perfect?' he asks over his shoulder.

'I took a couple scans with my comms, just enough to make sure I had the size and rivet holes in the right spot. Made the design, scanned it and then compared the two models.'

'Very nice,' he says and activates another hidden switch.

There's a change of atmosphere as the formerly lifeless humanoid robot gains a feeling of awareness.

'Orion?' Art asks tentatively.

The android swivels its face toward Art, then me, then the eight corners of the room. It raises its repaired left arm and swivels the limb.

'Do you think he's okay?' Art whispers to me.

We both jump at Orion's first noise, an odd grating sound like shee.

'May I adjust your voice box?' Art asks.

Orion inclines its head in consent.

'Congratulations,' I smile to Art. 'It's a boy.'

We jump again at Orion's answer. 'Shee!'

'Why does he keep doing that?' Art says as he triggers the release for the faceplate again.

'Shee!'

'I don't know,' I say, covering my ears. 'He's your robot.'

'Shee!'

There's a clang as Art's surprised jump hits his screwdriver into Orion's metal skeleton. He scrabbles around one of the components packed into Orion's head, before allowing the faceplate to close.

'Orion?' he says carefully.

The android swivels toward Art once again and tilts its head. We can't help but jump again as it speaks. 'Yes, Artemis?' Its voice is smooth and disconcertingly human of a moderate timbre.

'How are you feeling?' Art asks.

The android seems to consider its words for a moment, taking in the small space, my presence on the bed and the collection of tools and parts. 'I am feeling aware.'

'Good, good,' Artemis smiles in joy. 'I'm so glad you're here. Do you have an error report for your malfunction?'

'There was no malfunction,' Orion says. 'I am female. I was correcting your pronouns.'

'Oh!' Art says and turns to me. 'He-'

'She,' Orion interrupts.

'She's female.'

'I can see that,' I tell him.

'But I wrote your program as male,' Art objects.

'I am female,' Orion says and shrugs. There's a delicate ripple in the metal plating that makes up her shoulders as she shrugs.

'Congratulation,' I say. 'It's a girl.'

The shadows of her faceplate adjust to the hint of a smile as internal lights work to convey her pleasure.

'It'll take us some time to work out any bugs you may have, but I hope you are happy in the meantime,' Art chatters nervously. 'I'm sorry your body is substandard; I know ethically androids must be given a chassis equivalent to their sentience and intelligence. We've done our best to repair you.'

'I am fine,' Orion says. 'I like that I am silver and gold now. I feel,' she pauses. 'I feel unique, identifiable, cared for, maintained, individual. However, I do know of one malfunction.'

'Yes?' Art prompts.

Orion turns her featureless visage toward me again. 'Your face,' she says. 'It is degrading not in accordance with your biological age.'

'Did your robot just sass me about my sunburn?' I say incredulously to Art, one hand creeping to cover my flaking nose.

Art groans. 'That must be Ana's personality coming through.'

Sunday sees me in my mother's office, marvelling over the tiny speck of green finally emerging from what I was promised was a chili plant.

'That's it?' I ask. 'It's been over a month and that's all it's done? Nature is rubbish.'

'Nature is not rubbish, thank you very much,' my mother quips. 'Have you ever considered that you're spoiled by the world of instant gratification you live in?'

'I do not live in a world of instant gratification,' I argue.

'Yes you do,' my father says. 'You want food, you hit a button on a machine and suddenly you have food. You want to know what's going on anywhere at any time, you look at your wrist. You want to speak to someone, gain access to somewhere, pay for something you just tap your comms. Back in my day you had to leave the house to buy food, take it home, store it, prepare it and know how to cook it. On the farm, I had to grow it myself. You don't remember the farm?'

'Vaguely,' I say. 'It was a long time ago. I remember doing a lot of weeding and pesticides.'

'And crashing my tractor into the barn,' my father adds. 'That tractor was my grandfather's. I'm just lucky you didn't hit the Vette.'

'Okay, yes, whatever,' I flap my hand. 'I'm not here to be reminded of things that happened over forty years ago.'

'You're just here to be a pain in the ass?'

'No, Dad, I'm here to talk about this whole thing,' I wave to encompass the general vicinity. 'You know, with you and...' I trail off.

'My death?' he says.

'You're not going to die, Dad,' I say.

'Yes I am, one day.'

'Can you two stop being so obstinate?' my mother says. 'Yon, go put the kettle on and don't come back until you can be civil. Now then,' she turns to me. 'What are you here to talk about?'

'Well, you owe Dad credits,' I begin. Flicking my comms at the screen inlaid in the glass table, its surface grows opaque as it displays the information Art pulled from the data. 'There's an algorithm making bracket D slightly more likely to be selected and brackets A and B far less likely to be selected.' Swiping across to another page, I flick Seraphina Vega's picture and information onto the table. 'Here's the person responsible.'

My mother's mouth turns down at the edges in distaste. 'Continue,' she says.

'Nova,' my father calls, interrupting. 'Where've you hidden the cal-sub?'

'It's in the same place it always is,' she calls back.

'No it isn't.'

'Yes it is, have a proper look.'

My father's muttered swears are punctuated by his rustling in the fridge.

'Now then,' my mother says. 'What's the problem?'

'Well we've identified that Vega created the algorithm and the list of her duties as Minister for Social Services include the rationing of credits, food and water. We need to find out what her plans are for the food shortages but we have no way of accessing her.'

My father stomps heavily to the table, favouring one leg, and deposits the tea, cups, cal-sub and a small platter of biscuits.

'Where was the cal-sub?' my mother says innocently.

'Hiding,' my father says.

'Bullshit,' my mother snorts.

'Could we stay on track, please?' I ask. 'We need to find a way to access Vega's plans for the food shortages. Once we have that information we can combine it with the evidence of the algorithm and force a revision of the termination laws.'

'I have an idea,' my mother says as she neatly pours the tea into each cup. The diamonds in her rings cloud in the steam, their shine temporarily diminished. 'I unfortunately know Vega. When you're bracket A, the world suddenly becomes a lot smaller and so we've ended up familiar with one another over the years.'

My father takes a biscuit and the gray in his moustache camouflages the powdered sugar left behind as he takes a bite.

Following suit, I take a biscuit. 'What are these?' I say, temporarily distracted.

'Pfeffernusse,' my father says.

'Feffer-what?'

'Nusse, you know,' he says and mimes hanging himself.

'Oh delightful,' I say sarcastically, but the biscuits really are. They're a sweet blend of a dozen spices.

'Excuse me, children,' my mother says. 'Is anyone interested in my idea?'

'Sorry, Ma, please continue.'

'I was thinking,' she says. 'If there's one thing politicians love, it's a charity event. It's great for public image. I'd have to talk to Art but if we could get him in reasonable proximity to Vega, he might be able to access her comms. It's not a great

start but it would give us something to go from if he gets her work correspondence or the contacts with whom she's working on the issue.'

'How would you get us access to a bracket A charity event? Art and I aren't exactly upstanding high-class citizens.'

'Easy,' my mother says. 'I'll host the thing.'

'What's your charity event Nova?' my father asks.

'Oh, I don't know,' she says, drumming her nails against her teacup. 'A fundraiser for the victims of all the fires that have been happening recently.'

'I don't know if that's the best idea,' I say. 'Cameron, the janitor whose uniform I stole, died in one of the fires not long after I was there. I don't know if they're onto us or trying to send a message or if it's just coincidence or what but maybe we shouldn't attach our names to anything related to the fires.'

'Hmm,' my mother says, her nails still drumming. 'I think it will be fine. They won't want to seem against relief efforts for the fires in any way.'

My teeth tear at a sharp edge of my thumbnail as I think it over and though I can't see anything wrong with the reasoning, it still doesn't sit right with me.

'I just worry about getting too close to a series of catastrophic events that often seem to coincide with my movements,' I explain.

'I understand where you're coming from, but it would seem suspicious to host a charity event about almost anything else whilst this is all occurring. It would appear like we're conscious of and avoiding association with the fires,' my mother counters. 'Is Winter still following you?' she asks.

'Yeah, he's outside at the moment,' I say. 'It's a lot easier to move around now that I know exactly where he is.' 'What are your plans now?' my father asks, brushing sugar from his moustache.

'At the moment, there are no plans. We only got that information a few days ago, we need to try and figure out how to get Vega's plans for the food shortages and then go from there. Art activated his android yesterday. It's, I mean, she's very impressive and amazingly personable in discourse.'

My mother's eyes light up in interest. 'I can't wait to meet her,' she says.

A tickle on my wrist alerts me to an incoming call just as a new work correspondence arrives. Tilting the screen, I can see the call is from Art and I tap my earpiece to accept.

'Hey,' I say. 'We were just talking about you.'

'Help me!' Art screams. 'It's my dad. I think he's dying.'

By the time I make it to the hospital, Vincent is on life support and stable, at least for now. Art sits by Vincent's bed, a crumpled mess of tears and mucous.

'Hey,' I say, after a medical intern has transferred the data to my comms.

Art's eyes are puffy and red from crying and he's shaking uncontrollably as he throws himself into my arms.

Making wordless soothing noises, I hold him tightly, one hand stroking his back. His body feels incredibly fragile, a delicate collection of fine bones usually hidden by such a big personality. He wails into my shoulder and I stagger to catch him as his knees give out. Slowly, his wails soften into weakened gasps as his fingers dig and twist into my clothes to hold me closer.

'Come on,' I say softly. 'Come sit and tell me what happened.' Taking Art's fingers in mine, I lead him back to his chair then collect the soporific tea I'd put on a

bench just inside the door before he collided with me. 'Drink this,' I tell him. 'It'll help calm you down. When you're ready, tell me what happened.'

Art sips his tea in shuddering gasps, tears dripping down his face. Each time he goes to speak, his face crumples and he sobs again. He takes tiny sips over the next hour as the pain in his eyes dulls ever so slightly and my fingers go numb in his grip.

'He,' Art trembles and places his cup on the ground. 'He said he had a headache and wasn't feeling well. He said he was going to rest in the dark. I got worried and went to check on him after an hour. He was pale and confused about who I was. I tried to get him to stand up and he fell. I hit the button for the ambulance and then I called you.'

'You did all the right things,' I tell him. My eyes are locked on Art's other hand as it stretches, shaking, to hold Vincent's.

'What do,' he pauses to swallow. 'What do we do now?'

'This,' I point at Vincent's IV. 'This is a tissue plasminogen activator. It's working to dissolve the clot in your father's brain. This works best when administered within three hours of the onset of a stroke.'

Art gives me a watery nod to show he understands. 'So he'll be okay?'

'Not,' I hesitate. 'Not necessarily, I'm sorry. He may be at risk of another stroke. The next twenty-four hours are vital. If he makes it through those, he's got a good chance of making it through the first three days. Even if he makes it through the first three days, some of the tissues in his brain have died and it will take a long time for him to recover, if he ever can at all.'

Tears stream freely down Art's face. 'Then what do I do?' he whispers.

'You watch, you wait, you try to get some rest. You think positively. You call Ana and let her know what's happened.' 'I can't,' he says, his fingers gripping mine tighter. 'It'd, it'd be like admitting this is the end.'

'Ana has a right to know her father has been injured,' I tell him gently.

'Will you call her?' he asks me in a tiny voice.

'Of course,' I soothe. 'It's my duty as your officer to notify people in the case of an emergency if you wish me to.'

He nods, his eyes not leaving mine as I stand to make the call. Locks of his cinnamon coloured hair escape their constraints with the movement to now frame his face. Without thinking, I pull my fingers from his to reach out and brush a strand back behind his ear.

I call Ana from a hospital bereavement room; Art's tears are still damp against my fingertips. As I wait for her to accept the call I stare unseeing into this wing's garden, a space of synthetic turf and floral-patterned dividers.

'Wynne,' she says by way of answer. 'What is it?'

'It's me,' I say, pulled back to the present moment. 'Are you busy?'

'Extremely, what is it?'

'It's your father,' I say gently. 'I'm sorry to say he's had another stroke.'

'Is he alive?' she asks after a second of silence.

'Yes,' I say. 'His condition is currently stable. The doctors-'

'I finish in four hours,' she interrupts and disconnects the call.

When Ana arrives almost five hours later, Art is slumped against the bed asleep, his cheek against his father's hand. As young as Ana is, her skin hangs from her face with exhaustion. She's almost entirely black with grime and dirt, only her hands and an area around her eyes in the shape of her safety goggles still clean. She stinks, and her hair hangs limply with sweat.

'I'm here,' she announces, dried concrete and mud crumbling off her as she leans against the doorframe.

'You couldn't have left work early and got here sooner?' Art slurs with the voice of sleep.

'Leaving work early wouldn't have made any difference,' she says.

'What if he woke up and you weren't here?'

'Did he wake up?'

Art can only shake his head as fresh tears seep down his cheeks.

'Then I'm here as soon as I needed to be,' she says.

'It's like you don't care,' Art cries.

'Of course I fucking care, Artemis,' she shouts. 'But sitting on my ass for five hours wouldn't have solved anything. At least I kept busy instead of sitting around and dwelling on it. Now get up,' she strides into the room. 'And let me sit down, I'm fucking exhausted from pulling triple shifts seven days a week because there are other people in the world dying.'

Art jumps to his feet, his chair squealing as it scrapes against the floor and for the first time I realise that they're the same height. Ana's jaw is rigid and she's leaning forward, fists clenched by her side whilst Art maintains a neutral stance with a murderous expression.

'I'll get another chair,' I mutter, sidling from the room.

At the command station for this wing, a snippy nurse turns to me.

'Are those your clients in room 5137?' he asks.

'Yes?' I reply, pausing with my borrowed chair.

'Can you keep it down please? The rest of these patients actually have a future and need their rest.'

'Hmm,' I say coldly, looking at the surname on his nametag. 'Gatdula, huh? I think I'm starting with a client called Gatdula in the next few weeks. I wouldn't worry about getting my rest if I was you.'

Back in Vincent's hospital room, Ana has claimed Art's chair while he cries in the bathroom.

'Did you have to be so harsh toward him?' I ask her. 'He's scared and stressed.' I slide the third chair into position.

'And I'm not?' she snaps. 'Don't fucking start on me.'

'I'm not starting on you Ana,' I say gently. 'But you're right, and I'm sorry; everyone deals with grief differently and it's not up to me or Art to decided how you should behave.'

There's a flush and moments later Art reappears and slips into the chair next to mine. His eyelids are swollen and his cheeks and nose are raw from wiping them on his sleeve.

For two hours we sit like this as first Ana and then Art are claimed by an exhausted sleep, their cheeks coming to rest against my shoulders. Carefully, so as not to wake them, I submit my request to take the next day off work.

Sometime later, as the temperature is beginning to drop outside, a doctor comes and takes in the sleeping Gen One twins: Ana coated in grime, Art puffy and tearstained. Shaking her head, she touches a chip to my comms and transfers me the results of Vincent's CT and MRI scans, carotid ultrasound, cerebral angiogram and echocardiogram.

'Sorry,' she mouths as she leaves.

Vincent's funeral is held six days later on a Saturday morning.

'It's been a long time since I've been to a funeral with an actual dead guy,' Winter says quietly.

'You're already making me regret asking you to be the other attending officer,' I tell him.

'I was being serious,' he says. 'Sorry if it came out a little crass.'

Jie Hu is weeping into Amber Harris's shoulder. Bin is still in security, having his wheelchair checked for weapons. Guillaume is too ancient to even make it out his front door and is still avoiding public notice lest it result in his death.

Art is close to catatonic, slumped in a squashy chair. He's hardly slept or stopped crying over the last week and it's taken a toll on him. His skin hangs limply from dehydration and exhaustion and he's almost incapable of keeping food down. Hooch and I have spent almost every night since Sunday at Art's apartment, comforting him as he sobs into his father's pillow.

Ana has not arrived yet.

'Why did you ask me anyway?' Winter asks, snapping me out of my reverie.

'You're charming and good with people,' I say. It's not a lie but it's not the truth either. 'And lately we seem to be understanding each other a little better.'

'You flatter me,' he says, fanning his face with one hand. 'But I appreciate it. The bonus wages for a wake and weekend rates will very much come in handy with my mothers. Where's your girlfriend?' he asks.

'She's not my girlfriend,' I frown, turning to look at him.

'Lighten up,' he says. 'I'm just trying to make you smile.'

'Anyway, I'm not sure where she is,' I say. My heart is tight in my chest looking at Art sitting alone, barely able to acknowledge the greetings and commiserations of the GM vegetable club members. 'Excuse me,' I say.

As I try to cajole Art into drinking a little bit of the free water, my mind is turning over the problem of Ana. She's allowed to grieve any way she wants, but I do wish she were here to support Art. It's selfish of me, I know, to be putting Art's comfort above hers but he's like Orion when I first found her: empty and almost beyond repair. Just as I know Orion's value now, so too do I know Art's and I can't bear the thought of him going to waste.

There's a commotion by the security gates and a command from Winter pops up on my comms: it's an urgent summons.

I repeat a motion I've done so many times recently by brushing Art's hair behind his ear as I apologise. 'I'll be back soon,' I promise.

At the entrance, Winter's eyes are bulging out of his head with incredulity.

Outside the entrance, Ana and Orion have their hands raised in a gesture of

peace. 'You're finally here,' Ana growls. 'Can you tell these wankstains to let us in?' Shockingly, Winter is looking to me for guidance.

'The android is non-armoured and unarmed, she's safe to go in the weapons scanner,' I say. 'The Gen One is the daughter of the deceased.'

'The deceased already has a Gen One son inside,' a one-hundred-andsomething year old guard objects. 'What bullshit are you trying to pull, kid?'

'You will address me as "Corporal",' I say coldly. 'If you will activate the facial recognition software in the goggles that are a mandatory part of your uniform and not to be left lying around, you would have had the answer soon enough. They're twins. Further, you will not use profanity in front of clients or mourners,' I tap a

button on my own goggles that instructs it to save the last minute of footage and continue recording. 'Your actions are being uploaded to your superior. You will apologise to me, Sergeant Walker and Gen One Diana.'

The colour blanches from the guards face as she turns to Winter to begin apologising in descending order of rank. 'I apologise for my unprofessionalism, Sergeant,' she salutes sharply and turns to me. 'Corporal,' a second salute. 'Ma'am,' to Ana.

'You are dismissed,' Winter says in a fashion that conveys boredom and severity. 'Return to dispatch and send a replacement for the rest of the day.'

'Sir,' the weapons scanner technician calls to Winter. 'The android is clean.'

'Is it really safe to let in?' Winter asks me.

I try not to hesitate as I give him my answer. Orion is a largely untested AI in a repaired scrap body with whom I've interacted exactly once. 'She's safe,' I say confidently.

Ana and Orion cross to the interior side of the security barrier and flank me as I lead them inside the funeral.

Orion's hand bumps against mine. 'Your hesitation was noted,' she says slyly.

'Annie!' Art cries before I can answer Orion. He flies out of his chair and into Ana's arms, crying again. 'I thought you weren't coming.'

Ana slaps the back of his head lightly but embraces him nonetheless. 'What do you mean by turning Orion off for a week, you jerk?'

'I'm sorry,' he says and wipes his eyes. 'I just, I couldn't deal with anything.'

'I am not a toy to be played with when convenient,' Orion says and places her gold hand on his shoulder. 'But I commiserate, I know your feelings,' she taps one finger against the forehead of her faceplate with a clear *ting*. 'I am hurting also.' 'I'm sorry,' Art says to her, embracing her. The metal fixtures on his clothes clatter against her metal chassis.

The odd trio of siblings, if an artificial intelligence constructed from an amalgamation of three sets of brain wave patterns and condensed into a single identity could be considered Art and Ana's sibling, finally notice the hush that has befallen the wake. It's Tuesday Harris who breaks the silence.

'That boy Artemis,' she says to her wife. 'Has gone and made an android!'

'I can't hardly say I'm surprised,' says a man with a shock of purple hair.

The three are swallowed by the attendees who shyly reach out and to stroke Orion's mismatched hands, asking Art how he programmed her and telling Ana how much they admire some of the newer buildings she's managed.

It makes me smile, seeing Art animated again, seeing his pride at Orion functioning well in a complex stimulated environment and seeing Ana being gentle with the elderly mourners. She is like an eighteen-wheel truck at a tea party.

'You've got some weird fucking friends,' Winter tells me, shaking his head.

'Thank you,' I say.

The reverie cannot last long and in a matter of tear-filled hours of eulogies and clips from Vincent's life, it is time for the ceremonial closure of the funeral.

'Dearly beloved,' Winter begins. There is no need for audio enhancements at a wake as we aren't separated into the Euthanasia Chamber and Viewing Room. It has a much more intimate feel. 'We are gathered here today to celebrate the life of Vincent Neptune Wynne,' he says.

'Neptune?' someone whispers.

Through my goggles I can keep an eye on Art without obviously watching him as Winter speaks. Art has his arms around his sister's waist and the difference in their physique, their composure, and their stances makes it difficult to believe they're the same age. Ana is stoic with one arm slung around Art's shoulders. As Winter begins to draw to the end of the eulogy, I prepare by grasping the heavy ceremonial cloth.

'A life taken too soon,' Winter finishes and I draw the thick material up and over Vincent's face.

I'm glad no one can see me crying in my goggles.

Chapter Eleven

Art hasn't left his apartment for a month, since the funeral. He toys with Nutri-Soups when I place them in front of him, showers when Orion instructs him and cries into Hooch's fur when he's not asleep.

'Art,' I say gently. 'Would you like to come for a walk with me and Hooch?'

He shakes his head, burrowing further into his father's bed, the blanket clutched to his chest for security.

'Orion?' I ask. 'What about you?'

She hesitates, her featureless visage lingering on Art until finally she swivels toward me. 'I will come for a walk.'

Orion's metal feet are padded with rubber grips but they still clang loudly down the metal stairs. Hooch's ears are rotating wildly at the bounce of the echoes.

'How are the preparations for Nova's charity event?' she asks me after a few minutes of silence.

'Good,' I say. 'I just hope Art is ready in time.'

As we reach the street level, Orion twists and flexes her replacement left arm. It's an almost white plastic shell Art 3D printed to house the interior workings of her new limb.

'Did you know,' she says suddenly. 'I contain static low-power receptors to monitor the state of my body while I am offline?'

'I did not,' I say.

'Before you removed me from the dumpster, factory workers used me for fun as a crash test dummy in forklift fights. You may laugh,' she adds. 'It is an amusing image.'

'But you're so valuable,' I argue. 'How could they use you like that?'

'I came out of the assembly flawed and was immediately discarded. My toes,' she points. 'The receptors are a fraction of a second slow which may cause me to stumble.'

'Eighty million credits and you're scrapped for a fraction of a second of a delay?'

'If you are paying eighty million credits, you expect perfection. You would not want a service-bot that would stumble with the hot tea and scald you.'

Even over the last month of taking irregular walks together, I have not become used to the staring that comes with being accompanied by a huge dog and a mismatched android.

'Do you think all three of them are robots?' someone whispers as we pass.

'Incorrect,' Orion's head swivels almost backward as she replies. 'Human,' she points at me. 'Gynoid,' she points at herself. 'Other,' she points at Hooch.

'Dog,' I prompt.

'Incorrect,' she says.

'He is a dog,' I insist. 'What do you mean gynoid?'

'I am a female robot. The term is gynoid.'

'Fair enough,' I say. 'Orion, are you happy?'

'Yes,' she says. 'Ana is vibrant and makes me feel alive, Art is complex and makes me think and you,' she hesitates. 'You are here too.'

'I know you don't have any delays in your processing, you did that on purpose,' I accuse.

'Confirmed,' she says. Her faceplate does that rare thing where the internal lights adjust to give the hint of a smile in the shadows of her face. 'May I hold the leash?' she asks suddenly.

'Sure,' I say, unlooping the material from my wrist. 'But be careful, he's quite strong. He'll stop if you tell him to "stay" firmly.'

The arrangement of shadows on her faceplate becomes stronger: she is pleased.

'I like dogs,' she says.

The sun has almost set by the time we return to the apartment, and we're surprised to see Art tinkering at the dining table. His fingers shake and he's gaunt but at least he's out of bed.

'Do you want some tea?' I offer.

He hesitates and then nods.

'What brought you out of bed?' I ask.

His voice is hoarse but dull. 'Nova's charity ball is in just over two weeks. I have to be ready.' The screwdriver slips from his fingers and he lays his face on the table in defeat.

'Do you want something to eat?' Orion offers.

Art's voice emerges muffled. 'No more Nutri-Soups.'

As I take my regular post-euthanisation shower, Orion programs the DingDinner to prepare Art a simple meal. While I'm scrubbing my scalp I can hear Ana arrive and I hurry to dress and greet her.

'Hey,' I say, towelling my face. 'What are you doing here?'

Ana jerks her head at Art. 'He let me know he was thinking of getting out of bed today and I thought maybe it'd be time to watch Dad's goodbye recording.'

Art pauses in poking at his chicken and corn soup. 'I don't think I have any tears left,' he says.

'Good,' Ana says. She snatches the towel from my hands and heads into the bathroom. 'Dial me up a bowl of that soup, I'll be out once I smell less shitty.'

'Would you like me to go and give you some privacy?' I ask Art.

He shakes his head, his mouth full.

By the time Ana has scrubbed off the top layer of her skin and eaten her bowl of soup, the air conditioner has deactivated with the onset of night. Art is curled up on one end of Vincent's two-seater couch, swathed in his father's blanket. Ana is firmly planted in the single armchair, a glass of something alcoholic in one hand.

'Would you like to sit?' I offer to Orion, pointing at the remaining spot on the couch.

'No,' she says. 'I believe Art would benefit from your proximity. I will pull one of the dining chairs closer.'

Once the four of us are settled with Hooch at our feet, I access Vincent's final goodbye on my comms and then flick it up and onto the main screen in the living room. Pressing play, Vincent's upper body fills the screen, he's looking to one side and smiling at something I just said.

'Hey kids,' Vincent begins. 'Well, uh, I have to make a recording just in case I die before I can be killed so I guess that's what I'm doing.' His eyes travel around the recording booth as he pauses.

It seems Art's body lied to him as fresh tears wash slowly down his cheeks. Under the blanket, his fingers creep into mine to hold my hand.

'So I guess I'll start with the oldest,' Vincent smiles. 'How many people can actually say they have an oldest child? Artemis,' he takes a deep breath. 'I can't express how proud I am of you; despite all of the laws you break. Wait, will this incriminate anybody?'

My voice cuts in from off-screen. 'No, only you and the named recipients will see this recording.'

'Oh, okay, good,' Vincent continues. 'Artemis,' he begins again. 'You may have been an accident but you were and are a very loved child. Your mother and I couldn't decide if we wanted a boy or a girl and we left Ana up to chance. Good thing we did because it worked out for the best and we got both of you. I know you struggle and you feel like you aren't good enough because everyone else your age is genetically modified and enhanced, but that's what makes you special. We modelled Ana's abilities after your mother's but it has been such a joy being constantly surprised by each new direction your life takes. You impress me every day and I hope you find the path that will make you happy whilst breaking as few laws as possible,' Vincent clears his throat as his voice grows slightly husky. 'I love you, Artie, be good and stay out of trouble. And take care of Ana, even though she'll act like she doesn't need it.' Vincent pauses, his chin in his hand and more than two decades of memories of his children in his eyes.

'Diana, my princess, my baby girl,' Ana barks a short laugh. 'Don't look at me like that,' Vincent continues. 'You will always be my baby girl. I am equally as proud of you as I am of Art. It takes courage to not only work in a field in which everything is designed to exclude you but to excel at it too. Though you were modelled on your mother, you couldn't be any more unique in the way you've turned those attributes into your own identity. I think it goes without saying that even though we predetermined some of your traits, we have been surprised every day with your agency in determining your future.' Vincent pauses again. 'Let Art takes care of you every once in a while and make sure you take care of him too. Almost no one else in the world has a sibling anymore and I think you may be the only twins left on the planet. I love you Annie, I love you.'

The recording stops and cuts back to the first frame of Vincent looking offscreen and smiling.

Art is weeping softly and Ana has her head tilted back, staring unseeing at the ceiling. She drains her glass in one swift pull.

'I,' she begins, tilting her face toward me. 'I appreciate that because of you and the selection we at least got this. We've made some good progress towards stopping the forced euthanasia. We've gotten a lot further a lot faster than I thought we would. No thanks to Art,' she teases with a short smile. Art gurgles a watery laugh. 'This whole thing,' she waves her empty glass. 'It gave Dad something to look forward to, to think on, to work towards. And I think we need to pull ourselves together because Dad has, I mean had a lot of friends who are or will be selected.'

I squeeze Art's hand under the blanket.

Orion startles us when she speaks; I think we'd briefly forgotten she was here because she's completely silent and motionless.

'I only met Vincent briefly,' she begins. 'But one third of my personality is drawn from him so I hope I am not out of line in offering my thoughts. I feel,' she grasps at the air with her plastic hand. 'Hopeful. I feel an odd amalgamation of happy and sad. It is a perplexing emotional state. What do we do now?' she asks.

'We keep going,' Art says quietly. 'There are two thousand people being killed every day in this city. We have to keep going.'

'You know, I think that's the longest sentence I've heard you say in a month,' Ana remarks. 'And it actually makes sense, too. Now go have a shower, it'll make you feel better.'

'I'm surprised you didn't say he smells like shit,' I say.

'I have my moments of decentness,' Ana sniffs.

'Amazing,' my mother says as she peers into Orion's open skull. 'I've toyed with behaviour modification using chips, you know, remotely stopping epileptic seizures, instigating sleep before but I've never considered comprising a whole new identity from several separate sets of brainwaves. Thank you, Orion,' she adds. 'You may close your faceplate if you wish.'

Art looks thrilled with the praise as he ruffles Hooch's belly fur on the floor of my mother's office. 'Thank you,' he says. 'I'm just glad she's operational and happy.'

'I like your diamonds, Nova' Orion says. 'I like the way they flash and I like the nanotechnology built into them.'

'Don't encourage her,' my father warns as my mother's face glows with delight.

'What preparations do you have left before the charity ball, Art?' my mother asks.

'Not many,' he replies. 'I've sorted out all my equipment and I walked past Vega's office yesterday and picked up as many signals as I could. I'm working on identifying which one is hers so there is as little to do on the night as possible.'

'What electronic security will there be on the night, Ma?' I ask.

'The usual things, weapon scanners, security cameras, surveillance drones, the Castle approach, packet sniffer, network intrusion detector, so on and so forth. But you won't need to worry about most of them. The drones will have you listed as an approved attendee, you'll be in before the weapons scanner and you'll have all the access codes for my network. You'll just need to break into her personal network, pull her contacts and skim her communications.'

'Just,' Art smiles slightly.

'What do I do while all of this is going down?' I ask.

'The problem with you is that anyone with facial recognition software will know who you are,' my mother says. 'We can change your face or the software, you can stay home or you can attend openly.'

I make a face of distaste. 'I'm not really one for formal events. Besides won't I embarrass you? What with me being an EEO and all?'

'If I have to go, you have to go,' my father says. 'You're coming.'

'Well, I guess that's final,' I say with a sniff of displeasure.

'And what about me?' Orion asks. 'Am I required to attend? Am I required to remain hidden?'

My mother chews the inside of her cheek as she thinks it over. 'If it's okay with Artemis, you may attend if you wish. I will claim responsibility for your creation as I'm licensed and he's not.' Art nods his consent. 'Do you wish for clothes?'

'No,' Orion says. 'I like my current colour pattern. However, I do have a different request.'

By the time we leave my mother's office, a hole has been drilled through the "lobe" of each of Orion's "ears." A small diamond sparkles on each side.

'I can't believe your mother gave her diamonds,' Art mutters.

'Why not?' Orion says. 'Nova likes diamonds and I like diamonds. She has many diamonds and I had none.'

'Do you have any idea how much diamonds are worth?' Art asks her.

'Yes,' she says. 'Do you have any idea how much Nova is worth?'

'No,' Art replies.

'Well I do. The loss is insignificant to her.'

'This is shit,' I tell Art two weeks later as I twist in front of the mirror. 'Why do I have to wear my ceremonial robes? I hate my ceremonial robes.'

'It's what your mother wants,' he replies, with his hands wrist deep in Orion's skull. She'd had a minor malfunction and been unable to turn her head. 'Better?' he asks her.

'Better, thank you.'

'Great, let's test your load-bearing capacity,' he smiles. 'Can you grab that big box for me please?' In the six weeks since Vincent's death, Art seemed to have hit rock bottom. Though he was still gaunt and rarely laughed anymore, it pleased me to see him up and about. 'I swear, if we get through this whole law changing process alive, I'm going to have a bevy of servants to carry my equipment for me the next time someone wants me to hack into a personal comms.'

I settle my share of the load on my back with a sigh. 'Shall we do this before the sun gets too high in the sky?'

Hooch is already wearing his little bowtie as we leave Art's apartment. Though it now belongs to him, he continues to use his childhood room whilst Hooch and I sleep on the couch. Vincent's room remains unchanged. Orion tells me Art sometimes cries in his sleep.

'Tell me of rhinoceroses,' Orion says suddenly.

'They're all extinct,' I tell her.

She makes a noise of displeasure, the large box seemingly giving her no issues on her way down the stairs. 'Tell me of angler fish,' she says. Art and I exchange a glance. 'I'm not familiar with angler fish,' I tell her. 'You may be better off asking some of the older members of the population. My parents might know things.'

The shadows on her faceplate rearrange into an obstinate pout. 'Tell me of the ocean,' she tries a third time.

'I've never seen it,' I say.

'Me neither,' says Art. 'Where've you been learning all these things?'

'I get bored when you are sleeping. Sometimes I connect to the network and look at things before I switch to standby for the night. I like the ocean.'

'You're very water-resistant but not completely water-proof, I'm afraid,' Art says.

'This is dissatisfying,' she sulks.

She is still sulking when we arrive to the revolving rooftop ballroom where my mother is hosting her charity ball. Art is concerning me on the balcony, the way he stares down the ninety-six floors to the street.

'Art,' I call, watching his hair whip in the wind. 'Hey, come inside, my mother wants to show you the space you've got to set up in. Art?' I say again, reaching a hand to him.

For a moment he seems not to recognise me until the fog in his eyes dissipates. 'Sorry,' he says, placing his hand in mine and allowing me to pull him back into the ballroom. 'I was just thinking.'

At the centre of the revolving ballroom is the elevator platform with a single path leading out of the surrounding open-air kitchen. The ceiling is purposefully high so that the hanging screens will not interrupt the view of the world revolving by outside the window. Art's room is down one level in a windowless office. 'It's a little closed off and small, sorry,' my mother apologises. 'But being windowless has its advantages. You're also as close to the centre of the ballroom as possible, giving you the best reach.'

'It's fine,' Art smiles. 'Just don't forget to send down some food for me. I've never had meat from an actual animal, just synthesised stuff.'

'Go slowly,' my mother warns. 'The shock to your digestive tract can sometimes cause some gastrointestinal problems.'

By the time the tables and stage have been arranged, the audio equipment tested, the mise en place completed and the security installed, my mother has just enough time to go home, dress and return with my father.

'Help yourself to some champagne if you wish, darling,' she says, kissing my cheek. 'I'll be back in two hours.'

'Two hours,' I balked. 'What do I do if someone arrives early? I don't know how to interact with those bracket A snobs.'

My mother takes my hands and smiles at me, her thumbs rubbing the back of my knuckles. 'Just remember not to kill anyone and you'll be fine.'

'I told my husband the attack drone wasn't necessary for dealing with the riot, but would he believe me?' A man chortles as he relays a riveting story to my father. 'No, of course he wouldn't, anyway, seventeen dead. What do you do for a living?'

'Nothing,' my father says. 'I'm Nova's husband.'

'Ah, a kept man,' my father's conversational companion winks. 'I've been familiar with the lifestyle myself in the past.'

'I was a farmer forty years ago,' my father says in a deadpan tone. 'Until my land was forcibly reclaimed, my livestock slaughtered and the house my greatgrandmother built demolished to make way for apartment buildings.'

'Ah,' the man says, his smile fading and his eyes sidling away looking for an escape.

'I wake up every day in crippling pain, the world completely alien to what I used to know but I'm unable to reconcile my existence with the memories that still linger. Do you know what they call it?'

'Hmm?' the man says, more out of politeness than interest.

'Marriage,' my father whispers.

'Oh Yon, you and your jokes,' my mother laughs from behind him. From my position near the champagne fountain I can see her pinch the tender skin just below my father's buttock.

His smile is pained. 'Have you met my wife?'

'Yes I'm quite familiar with Atlas MacIntyre, the Minister for Defence,' my mother says, pointedly.

My goggles pick up that my mother is dressed in close to half a million credits in gold and jewels. She's opted for sapphires today, with a blue star sapphire ring couched in diamonds taking the centrepiece of her left hand. Even though I know what the nano built into her jewellery does, the fact that my goggles can't determine it is impressive enough.

'Have you met my latest project?' my mother fills the silence, beckoning Orion to her. 'She's a sentient gynoid with a personality comprised of the amalgamation of three sets of brain waves.'

'Inspired,' Atlas says. 'Is it, er, dangerous?'

'She,' Orion says firmly. 'I am not.'

'They'd better not be mean to her,' Art's voice comes through my ear.

I make a noise of assent as I sip my champagne. 'Any progress?' I breathe quietly, the action masking my words.

'No,' he says. 'Is Vega even there?'

'Sweetness,' my mother interrupts. 'Come meet Atlas MacIntyre, the Minister for Defence.'

'Do I have to?' I mutter as I leave the champagne fountain. Reaching Atlas, I smile, offering my hand. He's the type of man who barely slips his fingers into a handshake, his grasp weak and his shake lacklustre.

'A pleasure,' he says uncertainly. His gaze darts up and down my ceremonial robes. With my eyes hidden by my goggles, he seems not to know where to look. 'What a colourful family you have, Nova.'

My father accompanies me on a circuit around the ballroom. 'Vega is here,' he says, taking a sip from his glass and nodding at the new arrival.

'Where did you get whiskey?' I ask. 'I'm stuck with champagne.'

'You're not old enough for whiskey.'

I make a noise of dissent, watching as my mother greets Vega.

Seraphina Vega rivals my mother in minute stature but opts for far fewer jewels. She models herself as a people's person and one with the lower brackets, having risen from bracket C eighty years ago with her creation of the Vega Housing Strategy. Her program compiled the blueprints for every existing building in the city and formulated all possible extensions and additions to those buildings whilst taking into account the construction materials, building regulations, wind patterns and available resources. It allowed buildings to be packed far more tightly without having to demolish and rebuild. I live in one of her buildings.

'Seraphina, have you met my family?' my mother says, beckoning my father and me to her.

Vega's grip is firm and her gaze unwavering as she looks me directly in the goggles. 'A pleasure,' she smiles. According to my goggles, she's passed a hundred years old biologically, but almost microscopic scars around her hairline and eyes reveal careful plastic surgery.

I'm shocked to pick up ocular implants in her eyes. If I weren't wearing my goggles, they'd be completely indiscernible. As it is, she might have access to all the same information I do with facial recognition software, implant detection software and electronic field software.

'Pardon my rudeness, but what's in your ear?' she says, tapping one of her own.

'Hearing aid,' I answer immediately. 'I'm hearing impaired. It's a one-off custom-made by my mother.'

'You didn't want cochlear implants?' she queries.

'No, sometimes it's nice to just take out my hearing aid and sleep through anything.' It's not the best lie, cochlear implants can be remotely disabled, but she seems to accept it for now.

'And what is that?' she nods at Hooch. Hooch's tongue is lolling out of his mouth as he stares adoringly up at my father.

'I call it Coat,' my father says. 'Once it's a bit fatter I'll have a new coat for attending evening affairs.'

Vega has the good grace to laugh politely.

'I'm picking up a really weird signal,' Art says in my ear. 'It's like nothing I've ever seen before.'

'Pardon my rudeness,' Orion says. 'But what's in your eyes?' She taps her plastic fingers on her metal faceplate, just below her eye sockets.

'It learns very quickly, Nova!' Vega says.

'She,' Orion interjects.

'Mother, may I borrow Orion?' I ask. 'I'd like to show her the koi pond in the lobby. She's very interested in waterproofing robotics lately.'

'Of course,' my mother says. Her eyes search the visible parts of my face with the faintest hint of worry. 'Grab some of the canapés for the guards on your way down. Not the oysters, they'll be too rich.'

'You're so kind, Nova, to remember us little folk,' Vega smiles and I'm glad my goggles are completely opaque to hide how hard I'm rolling my eyes.

Once I've shared most of a platter of canapés with the guards, Orion and I slip down one level to Art's windowless office.

'It's in her eyes,' I tell him. 'Her comms are in her eyes.'

'What, like she's got goggles?' he asks me, reaching for a vol-au-vent.

'Incorrect,' Orion says. 'She has ocular implants built into her irises. I must admit to some jealousy. They are microscopically thin and powered by kinetic energy from the movements of her eyes.'

'You're kidding,' Art says through a plume of puff pastry. 'How do you expect me to gain access to her comms when they're not only ocular-comms, which I've only ever heard theorised before, but completely custom-made and probably programmed by the person wearing them?' 'I don't know,' I say. 'Let's use my goggles as a starting point. They're biolinked exclusively to me and as they use the eyes to relay information, they work really well for relaying information caught by the different types of camera, such as facial recognition software, implant detection software and electronic field software. However, I'm not a programmer so if you're right and she made her own ocularcomms, there could be all sorts of security software in them that would detect and incriminate you. If you had built them, what would you have included?'

'If I had unlimited resources, probably a whole lot of defences if it was something I'm implanting directly into my body and then connecting to the network.'

'So that's it?' I say as Art munches an onion tartlet. 'We can't do anything?'

'I'm thinking,' Art says. 'If the ocular-comms are anything like your goggles, they're mostly just detection and display. She wouldn't have any writing capabilities like with your wrist-comms or regular handheld comms or lap-comms.'

I nod, seeing where he's heading. 'She's got to have a second device.'

'The two devices will be linked to share information, like your wrist-comms and goggles, so I just have to find what this weird signal is connected to and go from there.'

'Can you do it?' I ask.

'Maybe,' he says, gnawing his lip. 'Most of the things I deal with are massproduced commercial-made stuff. I haven't had a lot of practice getting into custom shit like this that I've only ever heard of in theory.'

'You're not saying Vega is better than you?' I joke.

'That's exactly what I'm saying,' Art says.

'On the plus side,' I say. 'The evidence we have on the selection algorithm is enough. This would just be the icing on the cake.'

'There's cake here?' he asks.

'I'm not sure. Anyway, you'll be able to review Orion's scans of Vega's ocular-comms later. It'll give you a heap of information to think about with your own projects,' I smile.

'I will stay here for now and pass on what information I collected,' Orion said. 'I also performed a scan of signals while I was upstairs, my scan may contain a clue.'

'Alright, I'll send word if anyone is looking for you.'

Back in the ballroom, Hooch and my father are seated away from the musicians, near the balcony. Elsewhere, there's a crowd of people around a much shorter figure, presumably my mother and someone has given Hooch a bowl of what looks like meat.

'Is that sausage mince?' I ask.

'No, it's tofu made to look like mince,' my father says.

'Good. I don't want him to get the shits like the last time he had really fatty meat,' I shudder at the memory. 'We couldn't use the southern stairs of my apartment building for a week. What are you up to?'

'Nothing, I'm bored shitless. You don't want to take me to the nearest clinic and,' he mimes pumping a needle into his elbow, 'put me out of my misery?'

A nearby man squeals in outraged shock. He and his conversational partner move back into the crowds.

'I can't believe you said that,' my father mock-gasps. 'Stop embarrassing your mother.'

'Dad!' I say, indignant. 'I di-'

'Shh,' he hushes. 'It's starting. I won't tell your mother what you said if you get me another whiskey. It's in the kitchen, ask the sous chef.'

The sous chef turns out to be a woman called Piper who's in her late nineties from bracket B. She smiles shyly when she sees me, her hands not pausing in their rapid dicing of herbs.

'You're the owner of that lovely boy with the bow-tie?' she whispers as my mother begins welcoming the attendees over the audio system. 'Yon told me you'd be coming.' She doesn't glance down once and I'm amazed she still has all her digits. Still without pausing, she scoops her handiwork into a nearby bowl with the flat of the blade. 'Did he eat the tofu?' she asks.

'He barely stopped to swallow,' I smile.

I chat quietly with Piper for the fifteen minutes it takes my mother to explain the tragic situation with the explosions and fires around the city. Of course, scorching temperatures and aging equipment are to blame and emergency personnel are heaped with praise for their life-saving work. There's over a thousand bracket A attendees here tonight and from my spot in the open-air kitchen I can see more than a few nodding along with my mother's words, pulling out their fi-cards to make generous donations to the relief efforts. Vega is one of them and I'm uncertain how to feel about it. A curved screen in the centre of the ballroom rotates in the opposite direction to the view outside as the millions of credits steadily increase.

'Now please,' my mother says. 'Though our meeting here tonight is in the name of tragedy, enjoy yourselves. The entrée will be served in ten minutes. Eat, drink and be merry.' Her words are met with a polite pitter-patter of restrained applause as the band begins playing delicate music.

As the entrées and then the first of the main courses are served over the next hour, my father and I continue to seek refuge in the kitchen with Piper. Hooch is shameless in his begging and finds himself the recipient of scraps of pâté and soft gooey cheese. I sneak away once to bring Art a tasting plate heaped with a selection of all three main courses, but the frustration and concentration on his brow lead me to leave the plate without asking for a progress report. By the time the plates for the third course are cleared from the diners, the donation screen has tallied over sixteen billion credits and my father is drunk. Art's uncharacteristic swearing periodically pierces my ear and Hooch is asleep with his side against the heat exhaust for a blast chiller.

As the dessert course files out to the diners, my father and I are soaking up the cold night air on the balcony when my mother finds us.

'If it isn't my two favourite people,' she says, kissing my father's cheek. She wrinkles her nose at the strong odour of whiskey clinging to him. 'Where's Orion?' she asks.

'Still downstairs,' I say. 'Keeping quieter company.'

My mother nods in understanding. 'Any progress?'

I cover my mouth with my glass conscious that just as my goggles have zoom and lip-reading capabilities so too might Vega's ocular-comms. 'Nothing I can talk about here,' I warn.

My father knocks his glass from the balcony railing and we watch it fall ninety-six stories to the street below.

'You did that on purpose,' my mother accuses.

'Maybe,' says my father, the edges of his moustache curling as he tries to hide a smile.

'You're drunk,' she accuses again.

'Maybe,' he says again.

'Come on, old man,' I say. 'Let me get the car and I'll take you and the dog home and come back for your wife.'

'But I'll miss dessert,' he protests as I lead him to the kitchen to collect Hooch.

'There's ice cream at home,' my mother says. 'Don't make a mess.'

In the kitchen, Hooch is surrounded by wait-staff all wanting to touch his velvety ears. His tongue lolls out of his mouth and his eyes are closed in pleasure.

'Hey vicious guard dog,' I call to him. 'Time to go.'

'Here,' Piper says, handing me an aluminium foil package. 'I managed to save one of the lamb shank bones before they were destroyed. Don't get me in trouble. They're very rich in fats and oils so make him go easy on it.'

Hooch has opened his eyes and his nose twitches, following the path of that foil package through the air.

'Not for puppies,' I tell him. 'Not until you've digested everything else. Now come on. Do you want to go in the car?'

Hooch's ears perk up and he lumbers to his feet. Turning, we find my father surrounded by junior chefs offering him the scraps of chocolate mousse, coconut tuile and almond praline. Feeling my robes being interfered with, I twist to see Piper guiltily sliding two plastic containers of desserts into my outer pocket. 'One is for downstairs,' she nods her head meaningfully.

Hooch thrusts his nose into my pocket just before I can twitch my robes away. 'Definitely not for puppies,' I tell him. 'Now come on,' I usher him and my father toward the elevator. 'Thank you for spoiling my father and my dog,' I smile as the elevator doors swallow us from view.

'Dad,' I say, rifling through his pockets for his car keys. He's leaning his head against the mirrored wall of the elevator, eyes closed. 'Did the kitchen staff seem extra nice to you?' 'Why wouldn't they be?' he yawns, stumbling at the deceleration of the lift as it lands on the basement floor. 'You're trying to save all their bacons, and mine.'

I balk as the doors open. 'They know? How do they know?'

'Because I told them, doofus.' He winces as he lowers himself into the passenger side of the Vette. 'Come on, meathead,' he calls to my dog. 'You can sit on the seats just this once.'

Hooch bounds through the open door onto the backseat, his plumed tail waving wildly. He plants his nose on one spot, then twists onto his back, wriggling ecstatically. He pauses, a goofy dog grin on his face, as he looks my father directly in the eyes.

'Why did you tell them?' I half-whisper.

'Get in the car already,' he shivers. 'It's freezing.'

'Why did you tell them?' I say again, lowering myself into the driver's seat. The engine is completely soundless, a modification my father made decades ago so it would run on biofuel and electricity. I missed the satisfying purr of power but it was still an incredible car, especially for its age.

My father shrugs further down into his coat, clipping his seatbelt in place. 'Most of them are bracket C and some B's. They deserve some hope.'

My heart is thundering in my chest. Irrationally, I am more afraid of the potential for failure now that people will be left disappointed than when the only risk was my death.

By the time I've left my father and Hooch drunkenly rustling for ice cream, the dessert course at the charity ball has finished. The crowd has dwindled somewhat and the remaining attendees sip tea and coffee or port, eating expensive real cheese. All of the internal lights that make up Orion's emotions are dimmed as I bring Art a cup of tea. His nails clack furiously against the screen as he types.

'Art,' I say. 'Give it up. Vega will be leaving soon and the algorithm is enough proof.' He ignores me as he punches in a new set of commands.

'I have tried speaking with him,' Orion says, her voice flat. 'He will not listen.'

Art's assault on the screen slows as he lays his head on the desk. 'I can't do it,' he says, voice muffled. 'Everything I try leads me to another wall or another trap.'

'It's fine,' I say. 'Have some tea. As I said, the algorithm is proof enough.'

'How can I make something as amazing as Orion but I can't even break into Vega's personal comms,' he moans. Orion's face lights up again and she seems to preen in the praise.

'You made Orion over the better part of a decade,' I remind him. 'And Vega is five times your age, with five times the experience and probably five times the resources and equipment. You said it yourself, you'd only ever heard about ocularcomms theorised and to suddenly be confronted with them in reality is a huge hurdle.'

'But I'm letting down my dad,' he whispers as exhausted tears seep from his eyes.

'You're not,' I say firmly. 'Nothing you could do could ever let down your dad. Pack up your things, I'll drive you home.'

I'm not quite sure how we manage to fit all of Art's equipment into my dad's Vette, but somehow we do. With Orion in the front seat enjoying the high speeds and Art cramped into the backseat, we make our way home.

Chapter Twelve

Four days later sees me arguing with Ana as we traipse up the stairs to Art's apartment. I've just killed someone and Ana has just woken up from a twelve-hour sleep. It's the first time she's had more than eight hours off from work in over three months.

'I'm just saying he needs to begin packing up the apartment and looking for a smaller one-bedroom place,' she says. 'The credits dad left him aren't meant to be squandered on rent and I'm only going to support him for so long.'

'I know,' I say as Ana waves her comms at the sensor and the apartment permits us entry. 'But he needs time. You wouldn't consider getting a place with him?'

'Not likely,' she says. 'The difference in what I can afford in rent and what he can afford doesn't make for good roommates. Besides, as much as you like your parents, would you want to move back in with them?'

'No,' I admit, closing the door behind us.

'Exactly,' she says. 'I don't want to live with my brother.'

'And I don't want to live with you,' Art says. He has his programmer's glasses on and Orion's plastic left hand is dissected in front of him as he makes minute repairs.

'I could get a job,' Orion offers. 'I could pose as Art and work online. No one would ever know.'

Ana and I exchange glances. 'It's actually not a terrible idea,' she admits. 'But it's not why we're here at the moment.'

'For your information, Nova wants to pay me for the opportunity to study Orion. Obviously the choice is Orion's and we'll discuss how we would split the credits later but I was waiting for a better time to bring it up.'

'I'm going to shower,' I announce. 'Talk amongst yourselves, children.'

After I've stripped and scrubbed myself clean I can't help but notice the small changes my body has gone through over the last few months. Living with Art, I've put on a little weight. I'm still thin, my belly still a concave but I no longer look so skeletal. The burns on my face have mostly healed, other than a pale blaze across the bridge of my nose where I've scarred.

'We walked Hooch,' Orion says when I return. Her metal fingers gently tease at his ears and her faceplate glows with pleasure.

'Thank you,' I say. 'Did he behave?'

Orion nods emphatically as I take a seat.

'So,' Ana announces. 'You failed to break into Vega's comms.'

'Annie!' Art whines. 'That's not fair. I haven't failed in a long time.'

'I didn't say it was anything to be ashamed of, just that it has happened and we need to work around it. I was so tired yesterday I accidentally bogged one of the automated forklifts after I broke a sewage pipe. There was piss and shit everywhere and the forklift is going "Alert, alert, this machine is not to be submerged." So it happens to the best of us. On the plus side, I got a day off.' Ana shrugs. 'Shit happens, you clean it up and move on. We don't have Vega's plans for the food shortages but we have proof she's killing the poor. Now we expose it.'

'How?' Art says.

'Are you familiar with spam?' I ask Art.

'Like the canned synthetic meat?' he asks. 'It's really good fried.' Art rolls his eyes at me. 'Yes, of course I'm familiar with spam, what about it?' 'I was thinking we should spam the city with the information about the algorithm. If we're careful about how it can be traced back to us we should be able to avoid a lot of legal backlash.'

'What,' Ana says sarcastically. 'Like send everyone a message that says, "Want a Longer Lasting Life? Click Here!""

'No,' I say in exasperation. 'What is with you two today? Be serious for a moment, the city is covered in screens and literally everyone has at least one form of comms. If we can mass-target some of the major servers we can begin distributing the message about the algorithm.'

'I've got some retrans stations left,' Art says hopefully. 'I can repurpose them to take over some of the billboards and info-stations with the information. Plus they already have the remote-detonation built into them.'

Ana begins scribing on a new page on her lap-comms. She writes in precise, blocky capitals. 'You've got the five major chip manufacturers,' she begins.

'The three universities,' Art adds.

'The EEO server,' I say. 'And the public transit and emergency services servers. Maybe the Military Police, too?'

'The Gen One registry,' Ana says. 'All Gen Ones and their parents get periodic messages about the program.'

'The ten biggest hospitals,' I say. 'Everyone who works at or has received medical care at one of those hospitals will receive the message.'

'Whoa,' Art interrupts. 'That's enough for now. That's more than twenty servers you're going to want me to break into, as I assume it will be me doing this.'

'I will help also,' Orion says, making us jump. We seem to have a habit of forgetting she's in the room.

'I'll take a couple of weeks off work and do anything I can to help,' I say. 'It'll be the first proper vacation I've had in at least five years.'

'No,' Ana says. 'You can't go acting out of the ordinary now.'

'I guess I'll just stick to killing then,' I mutter. 'That vacation can wait.'

'Do you have any idea what you're asking me to do?' Art says. 'I'm going to have to turn the servers for each of these into a zombie comm and then turn all of them into a botnet. Which is fine, I guess, but I also have to protect the botnet from attacks. All of this alone is weeks of work.'

'I believe I can help,' Orion offers again. 'As I have said previously, I connect to the network and look at things when you are sleeping.'

'You're not designed for this,' Art argues. 'It's too dangerous for you if you get caught.'

'I may not be designed for this but one third of me is drawn from you,' Orion counters. 'I'm sure I could learn quickly. I've been studying how you worked on decrypting the EEO network signal and I would like to try.'

'Let her help for now,' Ana urges.

Art waves Orion's dismembered hand in defeat. 'Fine, she can help for now.'

'How long will it take you to get everything done?' I ask.

Art gnaws his lip, resting his chin in Orion's dismembered hand. 'I don't yet know how secure each of these are. A generous estimate puts me at a week for each server, setting up the botnet as I go. You've got,' he quickly tallies. 'Twenty-three servers here.'

'Six months,' I say, dizzy. 'It will take six months to get this done. Once we launch the attack, we have less than two months for the laws to be overturned before

my father, before it's too late,' I finish lamely. I at least have eight more months with my father, unlike Art and Ana.

'Six months is the generous estimate,' Art says. 'It could take me a lot less. We'll aim for six months as the final deadline but I think I can do it in four or maybe less. Some of these servers won't be as secure as others.'

'What do I do in the meantime?' I ask, slumping in defeat.

'Kill people,' Ana says bluntly.

'Help with the retrans stations,' Art corrects, frowning at Ana.

'Pack up this apartment and find Art a smaller one,' Ana teases.

'I'm not moving,' Art says firmly.

Though working on the retrans stations feels like a step backwards, especially in the aftermath of Vincent's death, the first month passes fairly smoothly. Even the explosions seem to have lessened to about once a fortnight.

'Do you think it's because Vega was at your charity ball?' I ask my mother. 'So now she thinks people are onto her and has slowed down with the mass-murder?'

'Mm,' my mother muses, but I can tell from her tone she's just humouring me. 'Maybe.' She's distracted by Orion's body completely splayed open on the table in front of her. The faceplate has swung up and the chassis cover has been removed and set to one side and each of her four limbs has had its exoskeleton removed, revealing all of Orion's internal components.

'Maybe she grew tired of murdering people herself and has chosen to leave it to the algorithm,' Orion says helpfully. Without a faceplate, or any discernable feature, I'm unsure where to look when addressing her.

'Do that again,' my mother says.

'Do what?'

'Think about something you're uncertain about.'

My mother peers at a screen connected to the inside of Orion's skull as some wavy lines oscillate across it. She makes another wordless sound and directs Orion to think about wiggling her fingers.

'And you've been learning?' my mother asks.

'Yes,' Orion says. 'Art has been teaching me how to make the retrans stations. Now that we've distributed five into some of the power grids we'll be able to make a coordinated attack and display the information everywhere simultaneously when it is time. He says once we've finished them he'll start teaching me about server infiltration and setting up the botnet of zombie comms.'

'Amazing,' my mother says, pointing at a different screen. 'I can see the change in your emotions. Are you proud?'

Several of Orion's pieces on the table rock slightly, I think she was trying to shrug. 'If feeling pride is a sense of success and joy, then yes, I am proud.'

'You'll have to show me on a map where all the stations are going,' my mother says. 'I might be able to pinpoint some of the other power grids you can access for others.'

Orion's faceplate wobbles as she nods.

'Now since you're not technically able to open a credit account in your name, I've transferred the agreed sum to Art for now. I trust he will do right by you in making sure you get your fair share.'

Orion wobbles again. Briskly, my mother begins packing actuators back into Orion's internal structure, replacing her cleaned joints and reattaching her limbs. The connections slot neatly back into place and limb covers snap back into their sockets. Orion's chassis cover is riveted back on and finally her faceplate is permitted to close.

'Everything in the right place?' my mother asks.

'Yes thank you,' Orion says, swinging her legs off the table. 'I sent you the locations of the stations we have placed while you were reassembling me.'

'Thank you,' my mother smiles. 'You must have got your manners from Art because as lovely as Ana is, she's a little more spirited than you.'

It takes Art just two weeks to put my mother's credits to use. When I wake on my usual Wednesday off, I can hear him arguing over a call with Ana.

'After everything I've done, I think I deserve this!' he's yelling.

There's silence as he stomps from his bedroom into his father's room.

'Well, it's too late,' he says. 'I've already done it.'

My neck is hurting from sleeping on the couch with my giant dog.

'Hey,' I whisper, shoving Hooch. 'We're meant to be sharing the couch.'

Hooch grumbles and flops further onto his side, his tail hitting me in the knees. Twisting, I can just see Orion sitting on the armchair. From the dimness in her eyes, I know she's connected to the network and reading.

'What's going on?' I ask her.

'You will find out soon enough,' she says.

'Ana, I'm an adult, I earned these credits and I'm guaranteed many more on the way. I've made my choice.'

There's a heavy *fwump* as Art presumably sits on his father's bed and then silence. 'You're spoiled,' I whisper to Hooch, wriggling to free myself from the squashy couch and his weight.

It takes just three steps to round the corner from the living space to Vincent's doorway. Politely, I rap my knuckles on the open doorframe. 'Everything okay?'

He's been crying again. 'Better than okay,' he says with a watery smile. 'I just bought this apartment. Now I don't have to move.'

'Oh,' I say. 'Congratulations, you must be so relieved.'

'I am,' he says, wiping his eyes. 'I just wish Ana was happy for me too.'

'I'm sure she is,' I say, crossing the space to sit beside him. 'She's probably just worried about you spending all your credits on the apartment and then not being able to pay for other things.'

'I have more than enough credits left over to keep me for a year,' he says stubbornly. 'I'm an adult. I managed my father's finances for years before he, just before.'

'If you are concerned,' Orion says from my recently vacated spot in the doorway. 'Art has already opened a second credit account for my half of the credits.'

'It's not my place to tell you what to do with your credits,' I say. 'But I will say that you and Ana have been pulling some extremely long hours and perhaps you're both a little short tempered from it.'

Art flops onto his back, arms akimbo. 'Maybe,' he says quietly. 'I just wish my dad was here. I wish I could have been better, done this all faster and maybe he'd still be here.' His eyes close as he begins to fall asleep. 'There's three retrans stations on the table for you and Orion, she knows where they're going. I'm almost into the ninth server, I just have to keep working.' All the tensions in his face ease as he passes into unconsciousness. 'Perhaps you can explain what's going on,' I ask Orion once we've gathered Hooch and the stations. Checking my comms, I can see Winter's on base. He's hardly tailed me for the last week. I can only hope he's been reassigned back to active duty.

'Nova has given Art a significant sum of credits,' she says simply. 'She will patent my creation and claim responsibility as Art is not licensed to do so. In return, she is sending Art the vast majority of profits to arise from studying me and will pay for him to become accredited in all the necessary fields. He will be her student.'

'Oh,' I say. 'Is that all?' Boarding the MagRail, I tap my comms against the ticket machine three times, for three tickets.

'You know I have credits now, I can buy my own ticket,' Orion says pointedly.

'You don't have a fi-card or comms-wallet,' I tell her. 'You can pay me later.'

As we walk to the first power-grid of the day, my mind keeps niggling at the problem of Winter. Where is he? Have the higher-ups decided I'm no longer worth watching? Or do they have enough evidence to arrest me?

Orion leads us down an alley between two buildings. Burnt out machines are heaped against the walls and a dumpster steams in the sunlight, reeking of rot and fried electronics. Opening the mains box for this grid, Orion connects the modified retrans station to the mains power and then screws it to the inside bottom of the box. Part of our plan depends on the stations looking like they're meant to be there. Tucking the cable behind the station as best she can, Orion closes and relocks the hatch.

'You don't even need me here,' I smile. 'Between having the access code algorithm for the hatches and being faster at connecting it than me, I may as well be at home enjoying my day off.'

'Nonsense,' she says. 'I draw too much attention by myself and have no pockets with which to carry the stations.'

'Reduced to walking talking pockets,' I muse. 'Thanks.'

'The talking is not necessary,' she retorts.

We connect the twelfth modified retrans station almost three months after the first. On that same day, Art adds the sixteenth server to his botnet. I'm still permitted every third Wednesday off so I'm at his apartment when he whoops with joy.

'I'm in,' he says, grinning. 'I finally made it into the Military Police server. I only have seven of the hospitals left now. They're moderately simple but time consuming. Oh, wow,' he says, running his hands through his hair. 'I can't believe I've done it.' He wriggles out of his desk chair and collapses on the floor, stretching out a kink in his back. He grins at me from his place on the carpet, his hair fanning out around his features. Reading on my comms on his bed, I have to smile at his pleasure.

'Well done,' I say. 'What would you like to do to celebrate?'

'Ice cream,' he says. 'There's an ice cream parlour my dad used to take Ana and me to when we were little for our birthday. It's very expensive but I think we've earned a treat. I'll call Ana,' he says. He pulls his earpiece from his pocket and punches Ana's info into his comms, laying the hand-held device on the floor beside him as it requests connection to Ana's comms.

'Hey,' he says as the connection confirms. 'It's me. When are you free next? I want to go get ice cream tonight.'

'Surprise, bitch,' I can hear Ana entering the front door. 'I'm here now. Let me go boil myself in the shower, and then we can get ice cream.'

'What are you doing here?' Art say, scrambling to his feet.

'I came to check on the progress,' Ana replies. 'And I've got a proposition for you lot.'

We leave the apartment just as the temperature is starting to drop with the onset of night. Orion's faceplate is dim and secretive as we walk toward the MagRail station. As I go to tap my comms for my ticket, she stops me.

'Allow me,' she says, the shadows on her face curving. She places the palm of her plastic hand over the scanner, which gives a confirmatory beep. She repeats this action four more times, purchasing a ticket for each humanoid and Hooch.

'Well isn't this a merry fucking party,' Ana grins as we find a place to cluster on the MagRail. 'We've got a certified killer, a gynoid, a dog and probably the only set of twins on the planet.'

'I'll do anything for ice cream,' I joke.

The ice cream parlour of the twins' childhood is in the basement level of a food-packing factory. The heavy freezer door shutting behind us abruptly cuts off the dull roar of the machinery.

'Welcome to The Cool Spot,' a man smiles, only the tiniest frown creasing his brow at the sigh of Orion and Hooch. 'What can I get for you?'

'Rum Raisin, please,' says Ana.

'Cookies and Cream for me, please,' Art says, turning to me.

'Mint Carob-Chip please,' I finish, watching my breath frost on the air.

Hooch is loving the frosty environment of the walk-in freezer business, his coat puffing out in insulation.

'Four hundred and eighty credits, please,' the man says, handing over the last of the cones. 'Here, this one is on the house,' he offers, passing a bowl with a few shards of shattered ice cream cones and carob chunks. 'It's for the big fella. My Pa had a dog years and years ago. They can't have chocolate but they can have carob.'

'So what's this proposition,' I ask, once Ana's led us to a small table.

'I think you should move in with Art. Now hear me out,' she holds up her hand as Art and I both choke trying to protest. 'You've barely spent a night in your own apartment over the last five months. You're as poor as fuck so there's no need to pay for an apartment you're not living in. You're old, so sleeping on a couch is probably causing you all sorts of troubles.'

'I'm not that old,' I protest. 'I'm not even near middle-aged yet.'

'Art, I know for a fact you're still struggling to sleep, having someone else in the apartment will be good for you.'

'What about Orion?' I ask. 'There are only two bedrooms in the apartment and three people. I'm sure she'd like her own space.'

'Correct,' Orion says. 'Hence why I am purchasing the single room apartment next door.'

'Someone lives there,' Art argues. 'And you're not legally allowed to purchase property.'

'Hence why I am purchasing it on her behalf,' Ana says.

'You want to leave me?' Art asks Orion. The hurt in his voice is evident.

Orion softens her voice in return. 'I do not wish to leave you, I wish for my own space. That's why I'm purchasing the next door apartment and not the next district apartment.'

'Sounds like you have it all sorted,' I say. 'Though I still don't see why I need to move.'

'You're as poor as fuck,' Ana repeats. 'You can move out again once all of this blows over.' She gestures with her ice cream cone. 'In the meantime, save yourself some fucking credits and save your fucking back.'

I bite the lip of my cone as I think it over, taking in first Orion's neutral faceplate, Art's thin figure and Hooch's happy crunching. 'Fine,' I say. 'But only for one reason: because it's nice for Hooch to have people around while I'm at work. Art?' I turn to him. 'Does this work for you?'

He takes a deep shuddering breath and I can tell from the look on his face that he's thinking of his father. 'It works for me.'

It takes me two weeks to finalise the termination of my rent agreement and a further two weeks to move all my things to Art's apartment. He was initially adamant that I would take his father's room, but as it is the larger room it would not be right for me to have it. The terrarium he gave me is the last thing to make it to my new home and it takes pride of place on my desk. Orion carries it for me, the rubber grips of her hands secure around the huge glass bottle as she marvels at the tiny plants inside.

'I will have to ask Art to make me one,' she says. 'Once the tenant of my apartment is gone, I will have many nice things.'

Small traces of Art and Ana remain in the room that they once shared. There are burns in the desk from Art's early attempts at soldering and his storage boxes used to hide a mark on the wall where Ana stole her father's liquor as a teenager and kindly regurgitated it onto the plaster.

Ana had laughed at the revelation. 'I'll strip and repair this wall for you when I'm not so doggone tired.' No longer confined to a small lap-desk, I've got enough room to organise the hard copies of all my work records onto the shelving above the desk and I can't believe that all my possessions are laid out in this single room. Even my armchair made the move, now taking up a sunny spot in front of the window where Hooch can sniff the breeze. For now, Orion will continue to share rooms with Art until the sale on the next-door apartment is finalised.

Vincent's room is different also, now that it is Art's. His storage boxes line shelves that run the breadth of the room and he has the space to work at a long desk that spans the wall with the window. Ana's excavation finds already have prime positioning on the top shelf with a framed print of their parents. That's as far as Art has gotten in terms of moving, with the rest of his possessions dumped in the tiny space between the doors for the two bedrooms and the bathroom; navigation is difficult. Art himself is sitting at the part of the desk with his main set-up wearing just a towel, rapidly typing on one of the control consoles.

'Uh,' I clear my throat. 'Knock knock.'

Art jumps at the sound and twists guiltily to look at me. 'Sorry, I thought you and Orion would be longer. As soon as I finish breaking into this university's server, I'm down to the last two.' He points to another screen at the far end of the desk. 'This one shows the progress, it shouldn't be more than a few hours.' He gets to his feet, clutching the towel to his hips, his body half turned from mine in modesty, wet tendrils of hair hanging to his waist.

'Uh, I'll give you a minute,' I say. 'I just came to say Orion and I have brought the last of my stuff over. I'm about to Ding something up for dinner, do you want anything?' 'I'm not hungry just yet,' he says, hitting the eject button on one of his drives. 'I'll be out in a while, I'm working on something.'

'Okay,' I say and smile, searching his eyes. I close the door behind me as I leave and return to the living space where Orion is sitting on the couch, faceplate blank as she reads something on the network.

'What are you up to?' I ask her, as I input my selection into the DingDinner.

'Art built me a server to practice infiltrating,' she says. 'I am busy.'

'Oh, okay,' I say, taking my food from the machine. 'Happy housewarming to me,' I mutter, retreating to my new room where Hooch has already claimed the bed.

Orion making the most horrific squealing siren awakes me in the middle of the night. Hooch buries his face under my pillows and I clap my hands over my ears with a grimace. Struggling out of my linens, I'm momentarily disoriented by the new environment until I can remember the commands for the lights. Stumbling over Art's things in the hallway, his door is open and Orion stands by his bed emitting her ear-piercing alarm.

'Orion,' I yell over her noise. 'What is i-'

The connection of the back of her plastic hand to my face knocks me to the ground but at least she stops wailing. She goes to speak, but she's in some sort of hyper-speed and I can't understand the words she's saying.

As I stagger to my feet, I hit the command for the lights and catch sight of Art on the floor behind her. Blood covers his face and chest and bits of his shaved hair litter the ground. His body is rigid.

'Oh, fuck,' I say. Crawling to his body, I press my fingers into his neck and faintly detect his pulse. Fumbling, my fingers slick with blood, it takes me several attempts to do the only thing of which I can think.

I call my father.

Somehow I manage to communicate to Orion to carry Art downstairs to the street level, wrapped in a blanket to protect him from the freezing night air. She comes close to tripping multiple times, her toes scraping along the grills of the steps.

My father's Vette is whisper quiet as it ghosts along the street at an extremely illegal speed. Smoke pours from his tires as he crunches to a stop in front of us. Leaping from the car he stumbles only once, catching himself with his good leg as he helps me get Art into the back seat. Orion is close to unresponsive as she climbs into the front seat and I clamber in with Art, his head in my lap. In the dome light of the car, I can see most of the blood seems to be coming from his mouth. I'm pressed into the seat by the speed of the car taking off and it's a struggle to raise my head against the force. Streetlights throw Art's face into a staccato of sharp relief as we pass from dark to light, dark to light until I'm almost thrown into the back of the driver's chair by my father mounting the curb outside the front of my mother's shop and braking suddenly.

My mother is in her surgical scrubs with her operating chair ready and waiting for Art's stiff body when we deliver him.

'Mm,' she says from behind her mask. 'I thought so.'

She shaves the side of his head with one motion; his cinnamon locks are now more red than brown, then she scrubs the area with a sterilising agent. Palpating the bloody flesh, she grabs a pair of forceps from her tray and slips the pincers under the skin of his scalp. As she pulls out a chip, Art's body goes limp.

'Go to the office while I stabilise him,' she commands.

Orion is a mess of twitching and seems unable to talk when I ask her what happened and in the sharp lighting of the office I can see the gold and silver metal of her body is tainted red from carrying Art.

Fetching polishing cloths and a cleaning solution, I tilt her face towards me and begin to clean away the blood, working carefully around the metal plating of her neck, joints and waist. For an hour I work to clean her, buffing the bloodstains out of her surface. Slowly, she begins to twitch less as fewer random commands are fired off from her processors. The internal lights in her faceplate are dim.

'I apologise for striking you,' she says, her voice flat. 'It was not my intention.'

'It's fine,' I tell her. 'It was a scary situation.'

My father limps out of the hallway, some clothes in hand. 'We've still got some of your old things. They're not in the best condition but you're covered in blood. Go shower while your mother finishes stitching up Art.'

Orion's face has the particular configuration that says she's connected to the network as I head into my parents en suite and strip, leaving my bloody things in a biohazard bag that was draped over the toilet. After I've scrubbed off the blood that's beginning to flake on my skin and redressed, my mother has joined Orion in the office. Art is nowhere to be seen.

'This one,' my mother says pointing at a diamond in a chain-bracelet. 'The tech in this one monitors my high-blood pressure and this one, oh you're back.' She presses the bracelet into Orion's hands and stands to hug me. She's changed out of her scrubs and she's overpowering with the scent of antibacterial swabs. 'So do you want the good news or the bad news?'

I glance at Orion but she's utterly captivated by the way the clear gems reflect the light. 'Give me the good news first,' I say.

'He'll live,' my mother. 'Most of his wounds are fairly superficial.'

'That's it? That's the good news?' I say, rubbing my face. From the view afforded by this part of the city, I can see the sun will rise soon. 'What's the bad news?'

My father brings a pot of tea as my mother nods at me to sit. The coffee table grows opaque as she pulls up a scan of a brain on its surface. Several parts of the brain are highlighted.

'Brain chips don't impart knowledge like most people think, they just activate certain parts of the brain associated with the area used in certain activities. To put it simply, I have a chip that stimulates a precise part of my temporal lobe. It increases my ability to remember my scientific and medical knowledge. Your chip is in the frontal lobe and stimulates your reasoning and emotions. Obviously it's a lot more precise than that, but you can see certain parts of the brain being activated depending on what the chip is designed to increase.' She pulls up a new scan of a brain and this one is far more highlighted than the previous. 'Artemis had four chips and it seems sometime in the last few hours he implanted a fifth chip. This over-stimulated his brain and he suffered a grand mal seizure.'

Relief floods through my body. 'And so now he'll be okay?' I ask.

'Where did all the blood come from?' Orion interjects.

'He bit his tongue during his seizure and almost severed the tip,' my mother explains. 'Now for the bad news, during his seizure I believe he's hit his head. He's suffered severe brain swelling and I've had to temporarily open his skull to relieve the pressure. He's avoided brain death but I've induced him into a coma for now. We won't know the extent of his injuries until it's safe to bring him out of the coma.'

'How long will that be?' I ask. 'Is he... is he a meltdown?'

'It could be a few days or a few months, I don't know enough yet. He's not a meltdown. He'd be conscious if he were. And now for the really bad news,' my mother takes a sip of her steaming cup of tea and I can see by the shake in her hands that she's exhausted. 'Unlicensed insertion of brain chips is illegal as it's considered too likely to result in severe injury. The injury Art has sustained paired with his illegal activities is enough to have him terminated. He can't go to hospital, so he's going to have to stay here.'

'I,' I sweep my hand over my scalp. 'I'm going to take some time off work.' The skin around my jaw feels stretched and thin and my hand shakes as I try to enter the request for personal leave. Somehow, my fingertip still leaves a smear of blood on the screen; it must have been in my hair. 'I, I have to tell Ana,' I say, sinking into the couch. 'What am I going to say?' I whisper. I'm furious to feel tears seeping from my eyes.

My mother places a hand on my shoulder. 'You and Orion saved his life. You just have to give him some time.'

Hot, angry tears leak down my cheeks. 'We don't have time. Dad is going to die in less than three months.'

Chapter Thirteen

I spend a week at my mother's office, sleeping on the floor of my childhood room. Every morning when I wake up, I hope to see Art awake too, but he never is. My parents fetched Hooch for me, my mother making the long trek up to the now abandoned Wynne apartment to bring me my dog.

Orion chose to switch to standby for the first three days. When Art was not awake when she powered up, she took up my mother's offer to learn about the science of combining nanotechnology with neuroscience, but she hardly speaks more than a sentence a day.

I haven't seen Ana. Though I called her on the day of Art's accident, her voice was unreadable and abrupt and she has yet to visit.

My father wakes me around noon on the seventh day since Art's accident.

'Are you going to get your ass out of bed?' he growls.

'No,' I say. Inside my chest, it feels like my heart is in a vice. I know I need to get up and keep working on the plan but I'm paralysed with the fear of failure.

'Too bad,' my father says. He reefs the blanket off me and pulls me to my feet by one arm. 'If you're going to lay around and let everyone's hard work go to waste you can do it somewhere else.'

I stink, I know I do; I haven't showered since the accident. In the main room of my mother's office, her clients politely pretend not to see me skulking past, reeking of body odour. Orion's faceplate swivels to follow my progress, her expression unreadable as she toys with Hooch's ears.

I'm halfway back to my old apartment before I realise my mistake and readjust to head towards Art's. I've hardly eaten and my legs shake with the exertion of the sweltering heat and the multiple levels of stairs. As I reach the door I stop, my forehead against the warm exterior. With a weak punch I collide my comms with the sensor, permitting me access.

The inside of the apartment smells stale and boozy. Ana sits in her father's old recliner, glass bottles littering the floor around her. She's drunk, dangerously so.

'Well look who fucking returns,' she sneers. 'Where the fuck have you been?'

'Me?' I say, slamming the door. 'I've been with your brother while he fights for his life. Where the fuck have you been?'

'I've been here trying to work on the plan to save *your* father's life,' she hisses, throwing a half-empty bottle at me.

I duck, the bottle shattering on the door behind me. I'm not sure if it was halffull of piss or beer. 'Oh I can see that's going real well,' I scoff, nodding at the dozens of empty bottles strewn around her chair. 'At least I'm not drunk off my fucking tits.'

'At least I've never killed anyone,' she retorts, struggling to her feet.

'I do what I have to do to survive,' I tell her.

'Oh?' she slurs. 'At what expense? You kill fifty people a year and you've been an officer for over fifteen years. You've killed over seven hundred people.'

'Some of them wanted to die!' I bellow at her.

'And most of them didn't!' she yells back. She picks me up by my shirtfront and slams me into the door. Her breath reeks of stale whiskey and fresh beer. 'And now at the slightest hint of a setback, you're going to roll over and show your belly and keep killing people like their pet murderer. You're going to let them kill your father!' she spits.

'I'm not going to let them kill my father,' I grip her wrists.

'Then what the fuck are you going to do?'

'I don't know,' I yell. 'Art was the one getting everything done and now he's gone!'

Her grip on my clothes loosens. 'He's dead?' she asks, allowing my feet to regain total contact with the ground.

'No,' I say. 'He's not dead. I don't know what he is, but he's not dead or a meltdown. My mother put him in a coma and removed part of his skull to relieve the pressure from brain swelling.'

Ana's hands lose all strength but remain against my chest. 'Will he live?' she asks. Her eyes don't make contact with mine. With the amount she seems to have drunk, I'm not sure she can make much eye contact at all.

'Yeah,' I say. 'He'll live. We just don't know what condition he'll be in when he wakes up.' I tilt my head back against the door, dropping my hands from her wrists, my eyes screwed up to hold in tears.

Ana lets her hands fall and staggers back to the armchair. Kicking bottles, she finds two full of liquid and hands one to me. 'Here,' she mumbles. 'It's probably beer.'

Cracking the top, it's definitely beer but barely cooler than body temperature.

Ana waves me over to the couch, and then lays her legs in my lap after I sit.

'You smell like shit,' she tells me.

'So do you,' I tell her. 'When was the last time you showered?'

'A week ago.'

'Me too,' I say, remembering that smear of Art's blood left on my comms screen. I close my eyes against the memory but it lingers in front of me. 'I'm surprised you haven't trashed the apartment,' I say, to change the subject. 'What kind of person to you think I am?' she looks at me oddly, frowning to focus her eyes on me.

I open my mouth and then close it again. 'Never mind,' I say, and take a long pull from my beer.

Ana finishes her drink and pulls another from the trash on the floor. 'So what do we do?' she says quietly. Her eyes drift close and her head falls against the back of the couch.

'I don't know,' I tell her. 'I just don't know. We can't wait for Art and I don't know if we can do it without him.'

'Of course we can,' she mumbles. 'Didn't I tell you I'd been working on a plan?' Eyes closed, she guides the mouth of her bottle to her lips and takes swallow after swallow.

'What have you got?' I ask hopefully.

'Sweet fuck all,' she says and drops the now empty bottle onto the ground with the others and rests her hands over her eyes.

'Just how much have you drunk?' I ask her, concerned.

'Too much,' she groans, and vomits over the both of us.

'Oh,' I say as warm beer and unidentifiable chunks soak into my clothes. 'That much. Can you stand?'

Ana's only response is another torrent of frothy vomit.

Sidling out from under her legs, I scoop her under the armpits and walk backwards down the hallway into the bathroom, dragging her. Stumbling, I step into the bathtub, struggling to heave Ana over the side. I have no idea how she carried both Orion and me that day I fought Winter. Just as I succeed in pulling her into the bathtub, she whimpers and I have a split second to tilt her face toward the toilet.

Ana and I are both soaked to the skin in the contents of her stomach and I briefly hesitate before beginning to undress her and switching on the antibacterial spray. My feet receive two baths at once as I pull Ana upright to take off her shirt.

She moans in distress and fumbles to undo her pants. I barely manage to stop her face smashing into the ceramic tub as she slips in the liquid and falls to one side. Once she's completely naked, I prop her against one end with her face between her knees as she shudders and expels more and more foaming vomit. Adjusting the spray to a gentle warmth, I position it over her head to clean her and keep her warm.

'Is there any water?' she slurs. Her gingery hair is plastered to her skull and clinging to her face.

'I'll find some, don't drown,' I tell her. Out in the main space of the apartment, there's no stored water anywhere I can find and I have to Ding some. After I've filled two beer bottles with water and set two more to fill, I return to Ana who seems to have almost reached the bottom of her stomach. She heaves, but nothing comes out and she clumsily tries to spit.

Ana takes a bottle from me and the clink of glass colliding with teeth makes me wince. Directing the spray to just hit her back I begin to lather her hair, cleansing away the smell of bile and vomit, being careful to scoop the spray so it doesn't get in her eyes.

'Do you wash many drunken idiots?' she mumbles.

'I have a dog,' I explain. 'It's remarkably similar. Tip your head back, no one likes soap in their eyes.'

Ana heaves again, making an alarming noise but nothing comes out. 'I've got some clothes in my dad's wardrobe. I mean, in Art's wardrobe.'

With a bit of effort on her part, I manage to get her first standing, then out of the tub, then wrapped in a towel.

'Sit,' I say, directing her backside to the toilet. 'I'll get your clothes.'

Hitting the light command reveals Art's dried blood still on the floor of his room. With a bit of rifling, I find Ana's spare clothes and I'm careful to turn off the lights and close the door as I leave.

Dressing a drunken Ana is a lot easier than undressing her, especially as she's no longer vomiting or slipping around in a tub. After she's dressed, I direct her into my room and lay her in the bed, her face toward an empty bucket. Once I've cleaned up the vomit in the living room and hallway, thrown our clothes into a sink full of disinfectant, cleaned up Art's blood and showered off my own stink I return to the living room. Sorting through the bottles littering the floor I find five that are still full of beer. They're room temperature, but I'm not going to be drinking them for the enjoyment.

After I ran out of beer, I went and bought liquor, which kindly left me passed out and drooling on the couch. I was in a pleasant place where nothing existed except the faint promise of a hangover when a furious banging started on the front door.

I lay on the couch for almost a minute, hoping it will go away.

'I will fucking murder you,' Ana cries hoarsely, sounding like she's been dragged backwards through a recycling plant.

Heaving to my feet, I take another swig from the bottle of the cheapest rubbing alcohol labelled "whiskey" I could find and squint at the security screen.

'Oh, fuck off,' I say and wrench the door open. 'If it isn't Sergeant Winterfucking-Walker,' I glare. 'Come to rub it in my face?'

Winter pushes me inside, slamming the door behind himself. 'Rub what in your face?' he says. 'Where's your boyfriend? I need to see him.'

'He's not my boyfriend,' I snarl just as Ana appears.

She looks like death, hanging onto the doorframe and clutching a bucket containing cold vomit. 'This cunt,' she rasps as she recognises Winter. 'You've got one chance to explain what you're doing here before this bucket becomes yours.'

'I've come to see the boy,' Winter says, holding his hands up in a sign of peace. 'Where is he?'

'Wrong answer,' Ana growls and begins to draw the bucket on a backswing.

'Wait,' I say. 'You don't know?'

'Know what?' Winter cries. 'Where is Artemis?'

'He's dead,' Ana snaps.

Winter's face blanches. 'He's dead?'

'Close enough to it,' she says, bucket still poised in a backswing.

'Oh, fuck,' Winter says and sits heavily at the dining table. 'Oh fuck, oh fuck,

oh fuck. They got him?'

'He got himself,' I say, quizzically. 'Why are you here?'

'I need your help,' he answers. 'It's my mothers, they've been selected.'

Ana looks at me and rolls her eyes. 'I'm tipping out my bucket and going back

to bed,' she says. 'You deal with it. Don't wake me up unless there's food.'

'What makes you think we can help?' I say. 'Both of our fathers were selected too.'

'Yes but you're trying to stop it, aren't you?' Winter says and I'm shocked to see pain and tears mingling in his eyes.

It's my turn to blanche as the meaning of what he just said sinks in. 'You know?' I ask him, taking a seat at the table.

'I suspected,' he admits. 'But I wasn't certain.'

'Why didn't you turn us in?'

Winter smiles ruefully. 'As has become apparent tonight, I thought I might need your help if one of my mothers was selected. I just didn't expect they'd both get selected at the same time.'

'Bit of a dick move,' Ana says, reappearing from the bathroom. 'Selecting both of them at once.'

'You're the only Gen One twins and you only had your father left. They selected him,' he says and then turns to me. 'Your mother is bracket A and one of the most powerful women in the city and they selected her husband.'

Ana grunts, closing herself back into the bedroom.

From my jacket on the back of my chair, I pull my service weapon and press it against Winter's head. 'If you have been sent here to deceive me, I will kill you right now,' I say coldly. 'I am at the end of my rope.'

'I swear to you,' Winter says, his voice shaking. 'I am here because I want to save my mothers. You have nothing to gain by shooting me except having to explain my disappearance and why you fired your service weapon. If you kill me, you expose yourself immediately. Not killing me at least leaves a chance I'm telling the truth and gives you a little bit more time.'

For a moment I hold my position as tears roll down his cheeks.

'Fine,' I say, lowering my weapon. 'But I don't know how you'll be able to help. Plus,' I squint at my comms. 'It's after midnight and I'm brewing a hangover. We're not doing anything until tomorrow. Has anyone been appointed to follow you?' Winter folds his arms onto the table and collapses onto them, weeping. 'I don't think so, no,' he voice is muffled. 'It's been almost a year since the first family members of officers were selected. There hasn't been any trouble yet, that's why they've escalated to the family members of higher ranks. You knew I was assigned to tail you?'

'Yes,' I say. Conscious of the fact that I'm still not certain he's telling the truth, I don't mention the GPS in his belly or the jammers this apartment is equipped with. Rising, I chug one of the bottles of water. 'You're on the couch,' I instruct. 'You're not to leave without me or Ana's permission.'

Winter nods thankfully and immediately rises to cross to the couch.

At the intersection of the two bedrooms, I hesitate. It seems wrong to sleep in Art's room when it's hardly even become his room yet. However, Ana is in my room, though it's hardly become mine yet.

'Stop fart-assing around and just get in here,' Ana growls.

Ana is the first to wake and she's not shy about smashing around in the kitchen. When I blearily make my way to glare at her incredulously, she has the gall to say "good morning".

'There is nothing good about it,' I croak.

'Ah the joys of youth,' she winks. 'I feel fine.'

'I'm not old,' I bristle. 'Make me some breakfast.'

'I made coffee. You know where the DingDinner is.'

'I hate you,' I say, sitting at the dining table and putting my face on its surface.

Ana raps her knuckles sharply on the table. When I sit up to glower at her, she places a plate of syrupy pancakes in front of me.

'I hate you less,' I say.

She pulls her comms from her pocket briefly. 'Orion will be here once your dad drops her off so try to wake up. Hey, fuckface,' she yells to Winter. 'Stop drooling on my brother's couch and get over here.'

'I do not drool,' Winter says. His eyes are red and raw.

'If you want breakfast, the DingDinner is obvious,' Ana says. 'I don't want to hear anything about its credit balance.'

Winter mimes pulling a zip closed across his lips just as Orion lets herself into the apartment. She takes a seat at the table silently. Ana sits beside her and I think I can see her sliding her hand into Orion's. Whether it's in apology or for comfort, I'll never know because at that moment all three of them turn to look at me.

'Oh,' I say, swallowing my forkful of pancakes. 'I see; this is what we're doing now.' I lay down my cutlery and rub my eyes. 'Alright, we've lost Art but we can do this. I've got a rough idea of a plan, I just need to know when everyone is ready to wreck society as we know it.'

'As soon as possible,' Orion says. The internal lights of her face have barely appeared since Art's accident.

'Just tell me what to do,' Winter says.

'You're the boss,' Ana smiles ruefully.

'Great,' I say as I push away my plate of pancakes. 'All this pressure is just going so well with my hangover.'

Chapter Fourteen

We make our attack two days later on a Saturday morning.

Orion stands on the rooftop of the revolving ballroom, more than ninety-six stories above the street. With a little help from my mother, we implanted a modified earpiece in her head and now she speaks to me at my position at Art's desk.

'I am ready when you are,' she says simply.

'Ditto,' Winter says from his office on-base.

'Me three,' Ana yells over the sound of machinery.

'Alright, wait for my cue,' I say. Turning to Hooch lying on Art's bed, I wish I were he. Not a care in the world and oblivious to what's about to happen. He lies on his back, enormous paws twitching as he dreams.

Turning back to Art's main console I access the commands for the twenty stations currently connected to power grids throughout the city. I take a deep breath after I've ensured all twenty are synchronised.

'In three, two... one,' I say and tap to activate the stations.

The effect is immediately obvious but the retaliation is not. Every billboard I can see from Art's bedroom window suddenly turns a stark white, showing Vega's face and the information about the biased selection algorithm. It's a simple, easy to read design but the fact that every screen is displaying the blinding white information at once is disconcerting.

'And now for the zombie computers,' I say, half to my self and half in warning for the others.

We have twenty-one servers of hospitals, universities, emergency personnel and chip manufacturers all sending out the same message to their client lists. I know Art partially deactivated each server's keyword recognition software to bypass the spam filtering but beyond that I'm not sure how he's achieved it.

My own comms buzz three times with three new communications. I've got one copy of our message from the manufacturer of my chip, one from the EEO office and one from the hospital I visited twenty-five years ago when I broke my leg.

'I've got it four times,' Winter mutters. 'You can expect a shitshow any minute now.'

'I have not received it at all,' Orion says, sounding miffed.

'If I didn't know better, I'd say you were jealous,' I say to her.

'I just wish to be included,' she sulks.

I'm glad some of her old personality is returning. Standing and peering into the street below, I can see throngs of people stopped in their tracks, looking at wristcomms and handheld comms and pointing up at the screens littering this part of the city.

'There's an emergency summons for the Military Police personnel,' Winter says. 'The upper ranks of the EEO's will probably be summoned soon after that. I'll keep in touch.'

'I'm two minutes from the destination,' Ana yells.

'Get out of there fast once it's done,' I tell her.

Even over the deafening sounds of machinery I can hear her laugh. 'Yes mother, right away mother.'

'There is movement,' Orion says and I rush to pull up the list of power grids.

'Where?' I ask.

'Tyson District; at his current speed, a man wearing a Military Police uniform will reach the power grid in three minutes.'

'Tell me when he's forty-five seconds out,' I say.

'I've been summoned,' Winter says, dread in his voice. 'Switching off my earpiece for now. Hopefully this won't take too long. I fucking hate bureaucratic bullshit.'

The connection with Winter goes dead.

'Things might get louder on my end,' Ana roars just before she smashes the wrecking ball into the office building from which we stole our data.

'Fifty seconds,' Orion announces. 'Forty-nine, forty-eight, forty-seven.'

As I tap the remote detonation for the station in the Tyson power grid, Orion makes a satisfied sound. 'Explosions are pretty,' she says. 'The man is uninjured. The Tyson District has reverted to emergency generators. All screens are blank.'

A shrill alarm pierces my ear before the volume-adjust kicks in.

'Ana,' Orion says. 'Your building is drawing attention. Emergency personnel are on route to your location'

'No shit,' Ana laughs before an enormous rumbling crash is heard. The alarm goes silent.

Before I can open my mouth to tell Ana to get out of there, Orion interrupts me. 'Three more officers are moving toward the following stations: Nye, Pei Li and Henderson-Sellers.'

I flick those three locations onto the second screen and prime the detonators. 'Just tell me when.'

Winter suddenly rejoins the connection. 'Well, that was easier than expected,' he says. 'Before orders could arrive from dispatch the connection died and they can't get it working again.'

'You're welcome,' Ana says. From the change of sounds I can tell she's set the wrecking ball and crane on fire and begun running away. 'I'll be back at the apartment in hopefully an hour, unless public transport has already been suspended.'

'Keep safe,' I tell her just before she shuts off her connection.

'Forty seconds for the Henderson-Sellers grid,' Orion announces and I scramble to confirm the detonation. 'Military Police are approaching the Dresselhaus and Yun Districts. Fifty seconds for the Pei Li grid.'

I detonate the Pei Li grid before things get more hectic and flick the Dresselhaus and Yun grids onto the screen for primed devices.

'Foot patrols of Military Police and K9s have been dispatched,' Winter says. 'Those are some big fucking dogs.'

'Thirty seconds for the Nye grid,' Orion interrupts.

'Fuck,' I say and hit the detonator. We don't want to injure anyone unless we can't avoid it.

'Riot and surveillance drones have been released from four points of the city,' Orion says. 'I am returning inside. From now on my view will be limited. You have one minute for the Dresselhaus grid and a minute and a half for Yun. Personnel are approaching the Gates grid.'

'Noted,' I tell her. 'Stay safe.' The Gates grid joins the list of primed devices.

All of a sudden I realise I can hear things over the sound of my earpiece. For just a moment I take my eyes off the screens to peer down into the street. Armoured Military Police equipped with riot shields are beating their way through the screaming crowds. Windows and shop fronts have been smashed and pedestrians are brawling in an enormous throng. 'Forty seconds for the Dresselhaus grid,' Orion reminds me and I detonate it with a shaking finger. 'I am patrolling the perimeter of the ballroom as best I can but I now only have intermittent views of the Kaiser, Hopper and Brash grids and no view of others. From the response rates I've seen so far, I might be able to predict when to explode each further grid.' Her voice turns wistful. 'I will regret not seeing the explosions.'

Ana suddenly rejoins the conversation. 'All public transport has been suspended. I'm stuck in this part of the city.'

'Detonate the Gates district within the next seven seconds,' Orion commands.

'What are you going to do?' I ask Ana as I set off the Gates station.

'Hide out in one of my sites or rent a hotel room, I guess,' she says.

'Prime the Hopper station and be prepared to detonate on my word,' Orion says and I follow her instructions.

'I've been summoned again,' Winter says with dread. 'Back soon, team.'

'Immediately detonate the following stations: Gates, Hopper, Brash, Kaiser, Zhao,' Orion cuts in.

'Shit,' I whisper, rushing to follow her orders. 'That's now half our stations.'

'Riot drones are approaching your location,' Orion says matter-of-factly.

'Fuck,' I say. 'They might not be for me, there's rioting in the street outside.'

'Please prime the Blumenthal and McKeating stations. Immediately detonate the Blumenthal station.'

A drone hovers outside my window as I blow up the Blumenthal station. I take care not to look at it or act alarmed but my mind is focused on my service weapon beside me. After a tense moment, the drone flies away just as my comms buzz with a new communication.

'That's from me,' Winter's voice cuts back in, startling me. 'Don't bother checking it just yet.'

I release a breath I didn't know I was holding as Orion instructs me to prime the Welch station. A deafening siren starts in this part of the city and is abruptly silenced as I detonate the Welch grid. Every screen I can see outside flashes and goes blank. An electrical hum I didn't even realise I could hear is suddenly gone.

Hooch begins a low throaty growl behind me and gets to his feet, rough paws padding to look out the window. His lip lifts, baring a glossy canine.

'Prime all remaining explosives in preparation,' Orion tells me. 'By my calculations there will soon be a flurry of activity. Soldiers are approaching each of the final six stations.'

'Ready when you are,' I tell her.

'In five seconds, detonate the Whitelaw grid. Ten seconds after that, the Helin grid.' My earpiece auto-adjusts to cover the background noise of Hooch's growling.

'Done,' I say, my eyes glued to the timer.

'Now fire the Elmegreen and Antoniadou grids. Then in thirteen seconds, fire the Ray grid. Finally, the Sanchez grid.'

'That's it,' I say. 'Twenty grids detonated in just over half an hour.' Hitting the detonator for the last station I lean back in my chair, stretching my spine. Finally I can check my new communication, which is a forwarded missive from Winter. All Sergeants had received it from their overseeing Warrant Officers who had received it from their Lieutenants. The Lieutenants had received it from their Captains, who had received it from the Majors who in return received it from the Colonel. Finally I make it past all the extraneous forwards to the message itself, which simply instructs that EEO communications had been compromised and all EEO services have been suspended until further notice.

All officers were to inform their clients that terminations were cancelled pending further review.

'We did it,' I say, putting my head in my hands. My eyes are watering; I'm not sure if it's tears or staring unblinking at the screen but I can't stop grinning. 'All terminations are cancelled.'

'That's great,' Ana drawls. 'I'm currently hiding in a vertical farm. Let me know when the hubbub dies down. I'll send you my location'

'I'm stuck as well,' Winter says. 'No EEO's currently on base are to leave, allegedly for our protection.'

'How do I get back without drawing notice?' Orion asks. 'I am somewhat distinct in description.'

Before I can answer any of them, Hooch finally gets my attention with a snarl.

He's standing on his back legs, forepaws planted on the windowsill and staring down into the street seven levels below. His hackles are raised and his tail is beginning to creep between his legs.

On the street, a dozen Military Police K9's and their handlers are working to put the riot to rest. Where Hooch's head is as high as my hip, these dogs stand at chest height and where he is slender with a deep chest, these K9s are powerfully built through the forelegs and torso with downward sloping backs to their smaller hindlegs. Their fur appears as thick and dense as Hooch's but where his is a mottled patchwork of brown, white and black, theirs is an affair of shades of cream and brown, almost like stripes.

'Ana to base, come in base,' Ana says, snapping me out of my staring.

'Sorry, I'm here,' I say. 'Um. Winter, you're moderately safe where you are. Orion, it pains me to say it but you aren't an identifiable life form to the drones, so you're also safe. Ana, I'll, I'll figure something out, just hold on.'

Down on the flat, the unthinkable is happening as I stroke Hooch's back to calm him. The Military Police are wading through the riot, downing civilians with their batons and tasers. The civilians drop whatever weapons they've managed to make from bricks, metal pipes or even large shards of glass when faced with the threat of the massive Military Police K9s.

Scream are filtered from my ears by the distance and I'm mesmerized in horror until three massive explosions rock the entire city one after the other. Winter yells in my ear just as everyone on the street falls to their knees.

'Orion! What was that?' I ask.

'Fifteen explosions have just struck in three rounds of five,' Orion says calmly. 'I am compiling the approximate locations and sending them to you now.'

'Vega?' I whisper. 'Is she retaliating?'

'I am uncertain,' Orion says. 'Two of the explosions were her residence and office.'

'Could be faking her own death or trying to destroy evidence,' Winter says grimly.

'What can you see from where you are, Ana?' I ask her, but no response comes. 'Ana?' I ask again. 'Shit.'

Outside, on the street, many people have fled and others are comforting the injured. The formation of the Military Police seems to have fractured. One side has turned on the other and is attempting to defend the citizens. I balk when I realise

they're working to sort out the dead from the injured. K9s snuffle under refuse and debris, alerting officers when they find a body.

'Base to Ana, come in Ana,' I say, hoping she'll answer but her end remains silent. 'Shit, I'm going to have to go find her.' I rub my face and make a wordless sound of frustration. Looking at Hooch, there's no way I can leave him in the building if there's a possibility more explosions might strike. Rising, I cluck to him and gather his leash, slipping my goggles down the front of my shirt just in case. Hopefully no one recognises me as an EEO or if they do, hopefully Hooch's presence deters any attack.

As we slip down the stairs, Hooch's hackles remain raised, his ears are flat against his skull and his canines are bared.

'Behave,' I whisper, tugging the leash lightly. He flicks an ear toward the sound but remains hunched. It takes us almost two hours to make our way to my mother's office, avoiding areas of commotion and stopping to scan with my goggles for drones.

When I make it to my mother's shop, it's locked tight for security. I have to disconnect from Winter and Orion to call my father to let me in.

'I need the Vette,' I tell him as soon as I make it inside.

'You're still alive,' he says, feigning surprise. 'Good job, me too.'

'Thanks, glad to see it,' I tell him. 'Keys please.'

'Don't scratch it,' he warns. 'C'mere, dog,' he calls to Hooch, who cowers anxiously into my legs.

'I think he's frightened of all the commotion going on,' I say, passing my father the leash. 'He saw some Military K9s.' Though my father gently pulls the leash, Hooch presses firmer against my knees.

'He wants to stay with you,' my father says. 'What are you going to do?'

I rub my face as I reconnect to Orion and Winter. This isn't a complication I foresaw. 'I should hopefully only be a few hours. I guess he can come. Thanks for the car, dad. I'll be in touch.'

'Wait!' he calls as I turn to leave. Turning back, he envelopes me in a hug. 'Despite everything that's going on, I'm really proud of you. You've done well.'

Accelerating out of the underground parking garage, the Vette gains a second of airtime before bouncing back onto its wheels. Strapped into the back seat with his dog safety belt, Hooch whines periodically, his nose creeping over the back of the headrest to snuffle at my ear. Gaining speed all the while, we're on high-alert, conscious of the debris littering the road.

Swerving around a fire spilling into the road from a building, my heart-drops as I glance in my rear-view mirror and see the drone tailing me.

'Fuck,' I whisper, dashing the sweat off my upper lip.

I make a few turns but the drone continues to follow. No others have arrived and it hasn't activated its lights and sirens, which is a good sign but I can't let it get any worse. Easing my foot off the accelerator I allow the car to slowly come to a stop.

The drone hovers behind me, watching.

Slipping on my goggles, I draw my service weapon and step out of the car, face turned away and weapon hidden behind my side. Hooch howls in panic, alone in the car.

The drone rotates slightly, to maintain its view of me, and draws back so that I can't get underneath it. For the first time since my training fifteen years ago I raise my weapon and fire. The time it takes my goggles to lock onto the target and assist me in

adjusting my aim is infinitesimally longer than the ten microseconds it takes for my plasma gun to obliterate the drone. It falls to the ground, a semi-melted smoking wreckage.

'Was that necessary?' Orion's voice in my ear surprises me.

'Maybe, maybe not,' I say. 'How did you know?'

'I have been attempting to follow your journey since you left the apartment,' she explains. 'It is difficult when buildings obstruct my view but I have enjoyed testing the capabilities of my eyes and trying to predict your movements.'

'That's not creepy at all,' I tell her as I duck back into the Vette.

'Do you think you could collect me, please?' Orion asks. 'Seeing as you're out and about?'

'Once I've grabbed Ana,' I say, gaining speed down the street. 'I need to make sure she's okay first.'

'This is fine,' she agrees.

'Er,' Winter interjects. 'If I can get off base, can you collect me too? I want to get to my mothers after those explosions. I haven't heard from them and they're both disabled.'

Internally, I swear. 'Yes of course, I'll add you to the list,' I say and floor the accelerator.

It takes me over two and a half hours to reach Ana's last known location, partly because the Vette can't reach the same speeds as the MagRail and partly because of the debris, burning buildings and dead littering the street. Despite the efforts of the emergency personnel, the fires are getting worse in the afternoon swelter. Mounting the curb I'm out of the Vette in a flash and almost as quick to unbuckle Hooch. The vertical farm has sustained damage from the exploded building next to it. The façade of the farm is peppered with shrapnel and the windows are shattered but the building itself is still standing.

'Ana,' I tell Hooch hopefully. 'Find Ana.'

Hooch pants, continuing to press himself against my legs, tail curled between his legs.

'It was worth a shot,' I mutter, rubbing his ears to comfort him.

Inside the lobby of the farm, it becomes apparent most of the damage was cosmetic. I draw Hooch further into the artificial humidity lit by the back-up lights from the emergency generator, his hiking booties crunching harmlessly over the broken glass.

'Ana!' I yell, urging Hooch into a trot toward the stair well. 'Ana!'

'What?' Ana yells back as she comes down those same stairs. She's covered in a myriad of small cuts and grazes. 'What do you want?'

'You're okay,' I say in relief as I hug her. Hooch's tail wags ever so slightly.

'Of course I am,' she says irritably, patting my back. 'Why wouldn't I be?'

'Your line went dead,' I say. 'Did you not notice the exploded building next door?'

'Of course I noticed,' she says pushing me away. 'I briefly took my earpiece out to rest my ear. The explosions struck, making me drop it and I stupidly stomped on it running from all the glass heading straight for my face. It's how I got this,' she says, thumbing one earlobe which has been sliced in half. Blood coats her neck and shoulder but she seems unconcerned. 'Come,' I instruct, leading her and Hooch outside to the Vette. 'We have to collect Winter and Orion.'

I cringe when Ana gets into the car. She's coated in blood and dirt and sitting on my father's tan leather seats.

'I'll pay for any cleaning or replacements,' she says, rolling her eyes. 'Now go already.'

It's another two hours until we reach Orion and the sun is beginning to get low in the sky. Fires continue to ravage the city as emergency personnel struggle to contain the blazes and locate signals of life.

'I need night-vision cameras or software or something for my eyes,' Orion announces as she climbs into the back with Hooch. 'My current specifications are inadequate for long-distance viewing.'

Hooch dances from front-foot to front-foot, licking his lips anxiously. Orion immediately smoothes one hand over his head and shoulders, calming him during the drive to the outskirts of the EEO base where Winter is hiding in a street-sweeper receptacle.

'Get in,' I hiss, conscious of the security cameras lining the perimeter of the base.

'Where?' Winter hisses back from the bushes.

'In the back with Orion and the dog,' I whisper-scream. 'Hurry up.'

'There's no room,' Winter whisper-screams back. 'Make one of them get in the boot.'

'I'm not putting my dog in the boot,' I argue.

'You are welcome to try and make me move,' Orion says. 'But I am also not riding in the boot.'

'Fuck all of you,' Winter's voice filters into my ear. 'I'm older than you and your girlfriend combined and your android stuffs me into the boot.'

'She's not my girlfriend,' I say.

'The term is gynoid,' Orion corrects.

'Man, sure is comfortable in the front seat,' Ana grins as we swerve around a corner.

'Sure is nice still having parents,' Winter snaps back.

'Speaking of which, we've almost reached their apartment building,' I interrupt before someone else can say something that will get them killed. 'Be prepared to jump out.'

'Thank you,' Winter says gruffly. 'If any investigation starts leading toward you, I'll do my best to clear your name.' There's a rustle and then a slam as Winter exits and closes the boot. We waste no time waiting to see him inside and speed down the street back toward my mother's shop.

As we pull into the underground parking garage I can't help but lay my forehead against the steering wheel as I exhale a breath of relief. 'Home sweet home, or at least close enough for now,' I smile at the others.

Ana's face is stony as Orion, Hooch and I clamber out of the car.

'Are you coming?' I ask her.

'I'm working up to it,' she says.

Glancing at Orion I nod as she jerks her head toward the building and tilts in question. Passing her the leash, she and Hooch head inside. Orion stumbles over Hooch as he presses himself against her legs.

'What is it?' I ask her.

'Art,' she says through a clenched jaw. 'I don't like seeing him helpless. I didn't like seeing my father helpless so I moved out. Now he's gone and now Art is an even worse condition.'

'Did you want me to take you to your apartment?' I ask her.

'No,' she says, eyes staring sightlessly forward. Slowly her hand creeps to release her safety belt and she takes a deep breath. 'I have to do this.'

Opening the door for her, I notice her hands are shaking slightly but she waves away my offer of assistance.

Finally, her eyes meet mine and I'm surprised at the naked pain. 'How bad is it?' she whispers.

'It's not pretty,' I say honestly. 'My mother had to shave his head to open his skull. It's all dressed in bandages but it's still surprising. He's hooked up to a few machines but it otherwise looks like he's sleeping.'

Ana laughs wetly. 'He'll hate that. He loves his hair.'

As we climb the stairs to the platform and wait for our landing Ana squares her shoulders and sets her jaw. Inside the office, Orion cuddles Hooch on the couch, smoothing his ears and feeding him dog biscuits by hand. Her faceplate reads concern for Ana when we pass.

Art looks exactly as I left him three days ago. Maybe a little thinner in the face, maybe a little more colour in his cheeks but otherwise the same. Tubes lead from his elbow to a drip and a nasal cannula delivers oxygen directly to his nostrils. A sterile screen, keeping the wound in his skull clean and dry, hides everything above his eyebrows. Under the sheet covering him to his armpits is a second wound in his abdomen, when the removed portion of his skull has been placed in a subcutaneous pouch to keep it warm and supplied with blood.

Ana makes no reaction as she stands in the doorway. For over a minute she just watches Art until finally she moves to sit beside him and take his hand in hers.

Closing the door, I slip away to join Orion and Hooch, the latter of which places his head in my lap as I sit, tail wagging.

My mother places a cup of tea in front of me. She looks exhausted and tired, but she smiles at my thanks as she passes Orion a necklace made of amber beads to study. My father limps behind her, carrying a cheesecake.

'I made a cheesecake,' he states needlessly.

'Thank you,' I say.

'Yes, well,' he flaps a hand in dismissal. 'I had to do something while you were off gallivanting around in my car.' He eases himself onto the low couch with a grimace, his bad leg stiffly held at a particular angle.

Now that I have the time, I finally send out a mass-message to all of my clients, informing them their terminations have been cancelled. As soon as I hit send, the complex mechanism holding my comms releases and it falls off my wrist and turns blank. I release a lot of tension I didn't realise I was holding, flexing my bare wrist and pull my handheld comms from my pocket.

'That'll take some getting used to,' I say.

'What are you going to do now?' my mother asks.

'I guess wait for all the riots and fires to be contained. Wait until the future of the EEO program is decided.'

'You're going to stick with it?' my father asks and I briefly hesitate.

'Yeah,' I say. 'There are people who want to die and I want to be able to help them but I think it'll take a while to start, with everything that happened today.'

My father nods his approval.

'Has anyone seen or heard from Vega?' I ask.

'She's been dead for over two days,' Orion answers, flicking her fingers at the glass coffee table; an image grows on its surface.

I don't know if I could personally identify the burned remains as Vega, but forensics had already made a positive identification. 'Over two days? How? The explosions went off not even half an hour after we released the information. Was she aware of our plans and timed the explosions perfectly?'

'I am beginning to suspect she is not the one responsible for the explosions,' Orion says. Her faceplate is dim in thought.

I'm suddenly overcome with exhaustion from the day's activities. Yawning, I place my plate back onto the glass table, over Vega's disfigured face, before I drop it.

It takes a week for the estimated death tolls to slow in their climbing. When all is said and done the number sits close to half a million deaths, not including those who have not yet succumbed to injuries and those still lost in the rubble.

I sit on the floor of my childhood room, my chin resting on the bed in which Art's condition is at least stable, if not improving. The fingers of one hand are linked with his, the fingers of my other hand scroll through the newsfeed on my handheld comms. I pause when I see the new headline.

GEN TWO CANCELLED.