Understanding Heroism: Transdisciplinary Perspectives

Olivia Efthimiou

Bachelor of Arts (ANU); Master of Letters with Distinction (CQUniversity)

School of Arts
Murdoch University
Perth, Western Australia

This thesis is presented for the degree of

Doctor of Philosophy

of

Murdoch University

2017
Declaration

I declare that:

a) The thesis is my own account of my research, except where other sources are fully acknowledged by referencing or footnotes.

b) The thesis contains as its main content work which has not been previously submitted for a degree at any tertiary education institution, and complies with the Graduate Research Degrees Thesis by Publication Guideline.

c) Where work has been done in conjunction with other persons, my personal share in the investigation is clearly stated. These statements are certified by my Principal Supervisor.

d) The thesis includes work that has been approved by the Murdoch University Human Research Ethics Committee (Approval No. 2016/028), and conducted in accordance with University ethics and fieldwork guidelines.

Olivia Efthimiou
Abstract

The past decade has seen an uptake of research on the topic of heroism spanning an increasingly wide range of disciplines. This has resulted in the birth of the emerging field of “heroism science.” Nascent research on heroism, however, is confined to specific disciplinary perspectives.

The purpose of this thesis was to address this gap by undertaking a transdisciplinary approach, highlighting the value of synthesising various theoretical frameworks in the study of heroism and transcending traditional disciplinary boundaries. The thesis was guided by the following research question: How can a parallel reading of cultural, biological, psychological and social narratives enhance our understanding of heroism as a persistent phenomenon in lived experience in contemporary Western societies?

This thesis sought to: (a) identify common narrative structures in culture, biology and psychology, and consider strategies for finding common ground between them; (b) contribute to the broader discussion of developing critical, multi-perspective and dynamic wellbeing frameworks; (c) revisit and emphasise the importance of story and metaphor in the early 21st century; and, (d) explore the presence of heroism in specific applied contexts through the use of mixed methods, including in-depth interviews with experts across disciplines, ethnographic data, and analysing extant data sets through emerging heroism theoretical frameworks.

I argue that a critique of heroism lends well to this transdisciplinary approach given the historical permanence of the phenomenon and its broad uses in a range of contexts. I apply this transdisciplinary approach to the study of heroism in several settings, which include embodiment, classical Greek philosophy, leadership, sustainability, career identity, playful participation and research practices. The thesis shows that the emerging field of heroism science can make important advancements in personal and community sustainable development in increasingly complex social landscapes.
# Table of Contents

**Title Page**.................................................................................................................. i

**Declaration**.................................................................................................................. ii

**Abstract**......................................................................................................................... iii

**Table of Contents** ........................................................................................................ iv

**List of Figures and Tables** ............................................................................................. xi

**List of Publications** ....................................................................................................... xii

**Acknowledgements** ...................................................................................................... xiii

**Introduction** .................................................................................................................... 1

  **Aims**............................................................................................................................... 2

  **Glossary of Terms** ......................................................................................................... 4

  **Overview of Chapters** ................................................................................................... 7

  **A Note on Thesis by Publication Style, Formatting and Referencing** ................. 14

**Literature Review** .......................................................................................................... 15

  **Transdisciplinary Theory and Consilience** ............................................................... 15

  **Story and Science** ....................................................................................................... 20

  **The Hero’s Journey in Scientific Enquiry** ................................................................. 25

  **Embodiment** ............................................................................................................... 27

  **Heroic Leadership** ...................................................................................................... 29

  **Leadership Embodiment** ............................................................................................. 30

  **Wellbeing** ................................................................................................................... 33

  **Playful Participation and New Media Studies** .......................................................... 38

  **Career Identity** ............................................................................................................ 42

  **Sustainable Development** .......................................................................................... 44

  **Conclusion** .................................................................................................................. 46

**Chapter 1: Heroism Science: Frameworks for an Emerging Field. 2017.**


**Attribution** ..................................................................................................................... 48
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>vi</td>
<td>An Artificial Line? Humanities/Sciences and the Two Cultures Debate</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>The Hero’s Journey, Story, Metaphor and Human Evolution</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Culture, Storytelling, Biology and the Hero’s Journey</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Metaphor in Science; Science as Metaphor</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>The Hero’s Journey as an Evolutionary Narrative</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Master of Two Worlds: Bridging Science and Story as a Hero’s Journey</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>Conclusion and Future Directions</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Acknowledgements</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Summary and Link to Next Chapter</td>
<td>81</td>
</tr>
<tr>
<td>3</td>
<td>Chapter 3: Heroic Ecologies: Embodied Heroic Leadership and Sustainable Futures. <em>Sustainability, Accounting, Management and Policy Journal</em>.</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Accepted Manuscript June 2016. Forthcoming</td>
<td>82</td>
</tr>
<tr>
<td>3</td>
<td>Heroic Ecologies: Embodied Heroic Leadership and Sustainable futures</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Author Details</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Acknowledgements</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Structured Abstract</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Keywords</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Article Classification</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Embodied Heroic Leadership: An Imperative for Holistic Wellbeing</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Heroic Futures, Sustainable Futures: The Call for New Models of Sustainable Wellbeing</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Heroic Leadership in the 21st Century: An Emerging Social Movement</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Toward a Sustainable Model for Promoting Embodied Heroic Leadership</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Heroic Consciousness</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Heroic Imagination</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Heroic Zones</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Adaptive Management</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Anticipatory Governance</td>
<td>97</td>
</tr>
</tbody>
</table>
A Case Study of Sustainable Action and Heroic Leadership Embodiment: The Hero Construction Company and the Heroic Imagination Project ............................. 99

Sustainable Futures: Leading Heroic Wellbeing into the 21st Century and Beyond ......................................................................................................................... 102

Notes ............................................................................................................................................... 103

References ....................................................................................................................................... 104

Summary and Link to Next Chapter .................................................................................................. 110


Attribution ....................................................................................................................................... 112

Heroism and Eudaimonia: Sublime Actualization Through the Embodiment of Virtue .................................................................................................................. 113

Introduction ................................................................................................................................... 113

Section 1: The Skill Set of Heroic Eudaimonia .............................................................................. 114

Intrinsic Goal-Setting and Lived Experience .............................................................................. 115

Independent and Self-Directed Behaviour ............................................................................... 115

Mindfulness and Self-Awareness ............................................................................................. 115

Self-Efficacy and Pro-Sociality .................................................................................................. 116

Prudential Wisdom and Phronetic Action ............................................................................... 116

Section 2: The Heroic, the Good Life and the Tragic: Suffering as Pathway to Eudaimonia and the Impacts of Unrequited Heroism ........................................... 117

Section 3: Heroism as the Embodiment of the Sublime ............................................................ 119

Discussion: Developing a Framework to Explore Heroic Eudaimonia ...................................... 121

References ....................................................................................................................................... 122

Summary and Link to Next Chapter .................................................................................................. 125


Heroic Play: Heroism in Mindful, Creative and Playful Participation .................................... 127

Abstract ........................................................................................................................................ 127
Keywords ................................................................................................................. 127
Introduction ............................................................................................................ 128
Emerging Perspectives: Heroism in Digital, Online and Playful Technologies .......... 129
The Heroic Imagination in Mobile, Locative and Social Play .................................. 132
The Cyberhero Archetype, Collaborative Heroism and Mindful Play ..................... 134
Conclusion ............................................................................................................. 140
Acknowledgments .................................................................................................. 141
References .............................................................................................................. 142
Appendix 1: Cyberhero Questionnaire (Klisanin 2012) ........................................... 144

Summary and Link to Next Chapter ....................................................................... 145


Attribution .............................................................................................................. 147

Creative Careers: A Heroic Leadership Perspective .............................................. 148

Abstract ................................................................................................................ 149
Keywords .............................................................................................................. 149
Introduction .......................................................................................................... 150
Emerging Research: Career Identity and Heroic Leadership .................................. 151

Heroic Leadership ............................................................................................... 153

Psychological Heroic Leadership ....................................................................... 155
Social Heroic Leadership .................................................................................. 158
Physical Heroic Leadership ............................................................................... 159

Heroic Leadership, Career Identity and Creative Practice .................................... 160

Procedure ............................................................................................................. 160

Recruitment and Sample ................................................................................... 160
Instrument .......................................................................................................... 161
Analysis ............................................................................................................... 161
Inspiration ........................................................................................................... 162
| Physical Intelligence, Embodied Agency and Leadership in the Ecological System of the Hero Organism | 201 |
| Flow, Deep Embodiment and the Hero’s Journey—the Conditions and Mindset of Heroism-as-Process | 204 |
| Heroism: The Final Frontier | 206 |
| Note | 208 |
| References | 208 |
| **Conclusion** | 211 |
| Key Findings | 211 |
| Limitations and Future Directions for Heroism Science | 217 |
| Heroism Science Futures 1: Toward a Biopsychosocial Model of Heroic Wellbeing | 221 |
| Heroism Science Futures 2: Toward an Open, Story Driven and Transdisciplinary Science of Heroism | 223 |
| Concluding Remarks | 224 |
| **Bibliography** | 225 |
List of Figures and Tables

Chapter 1

Table 1. Contemporary Heroism Science Research Across the Three Knowledge Cultures (p. 57)

Chapter 3

Figure 1. Heroic Leadership Embodiment and Sustainable Development (HLES): An Ecosystem Model of Wellbeing (p. 98)

Chapter 5

Figure 1. *SuperBetter*, ‘SuperHero’: Gaming as a Means of Playing out our own Hero’s Journey in the Everyday (p. 130)

Figure 2. Playing the Heroic Imagination in Rocksmith (p. 133)

Figure 3. *Cyberhero League*: An Innovative Style of Playful, Mindful and Collaborative Heroism (p. 135)

Chapter 7

Table 8.1. The Parameters of the Hero Organism, the Heroic Body and their Ecological Landscape (p. 207)
List of Publications


Acknowledgements

This thesis would not have been possible without the support of a number of people who have been instrumental to my doctoral journey. Words cannot fully express my gratitude, but a formal acknowledgement is necessary.

My principal supervisor Associate Professor Ingrid Richardson's guidance, flexibility, patience and expertise have been invaluable to help me grow as a writer and a researcher. I am in her debt for teaching me new skills and opening me up to new theories and areas of research that have had a big impact on the way I view the topic of heroism, and beyond. Her belief in me and what I could do as a "matter of fact" from the start made many things that seemed impossible at the time, become possible. I look forward to continuing to work with and learn from her. Ingrid, you are an inspiring, strong woman, scholar and female role model.

My co-supervisor Associate Professor Mick Broderick has been with me on this journey from the beginning, as I navigated my way through the uncertainties of a transdisciplinary and curious mind. His belief in my vision of uniting the sciences and the humanities in the context of heroism gave me confidence to persist when there was no precedent for it.

My adjunct US advisor, Professor Scott Allison, has been an instrumental part of this journey. Our mutual passion for the topic of heroism, popular culture, the mysteries of life, the humanities and the sciences, has resulted in various collaborations and a friendship that I hope we maintain for the years to come. It would certainly have been a far less interesting journey without his influence and support of my ideas which I am deeply grateful for. But more so, I am deeply grateful for knowing such a special and rare scholar, and human being. Thank you, Scott.

A special mention must go to the following:

Associate Professor Zeno Franco – his unwavering commitment to high standards and quality have helped make me a better writer, a more professional researcher and balanced thinker. He has helped me learn a valuable lesson that working within boundaries and constraints can in many ways produce a better product than pure unfettered thinking. I know that I, and many others, would likely not be here if not for the seed of divine inspiration that his original work with Professor Philip Zimbardo on the banality of heroism planted.
Dr Dana Klisanin – her spiritual energy, creative vision and innovation in frontier areas of heroism continue to inspire me. She has my deepest respect as a colleague, scholar, creative practitioner and woman. Thank you for being a wonderful role model and inspirational cyberhero warrior.

My continued gratitude goes to Professor Dawn Bennett, who has opened up doors for me in areas of research that I could not have thought possible. Her belief in me and my work have been just as invaluable.

Professor Julie Ann Pooley and Professor Wei Wang – in my brief stint in the psychology and genetics program of heroism I embarked on at Edith Cowan University, their belief and support of my idea of a “hero gene,” something that I hope to continue to work towards, was never lost on me. Their ongoing support and interest in the field has made a great difference as I work through this maze that is heroism and transdisciplinarity.

There are other scholars and educators who have been a part of this journey, supported me in many different ways, encouraged and inspired me to continue on this path; a journey that feels like I have been on for many years, yet has only just begun. These include: Professor Graham Seal, Dr David Coall, Professor Alan Bittles, Dr Peter le Breton, Matt Langdon, Ellie Jacques, Hanne Viken, Sylvia Gray, Shawn Furey.

There are many others who have helped me and inspired me in seemingly small ways who will go unnamed here, but these have never gone unnoticed.

I need to pay homage to the transdisciplinary giants and scholarly heroes who have inspired me beyond the work of heroism, and the mammoth task of uniting the sciences and the humanities which I firmly believe is the task of our century alongside heroism: Ken Wilber, E. O. Wilson, Paul Grobstein and Jeremy Narby.

And I must name one more scholar who will never know I existed, but speaks volumes to so many of us: Joseph Campbell. Joseph, wherever you are, I believe your spirit and legacy has somehow lit a fire in me that still burns. I still do not understand why, but I will heed its call and try to do my best to be of service to the grand plan of the hero’s journey. You are the Messiah of our generation and generations to come for deeply profound reasons I am convinced we are yet to discover.
Last, but certainly not least, my partner Rohan – it is unbelievable to think we have been together for nearly 20 years, and you have seen me at my best and at my worst. A big thank you for your patience throughout my many moments of uncertainty and self-doubt goes without saying. My intellectual quest would mean nothing if I did not have you by my side. You have taught me the greatest lesson, strength and hero’s journey anyone can go on – unconditional love. I seek to find a lost treasure throughout all this, but I never forget that the real treasure is right in front of me, in you. You are my destiny. You are my world.

I am excited to see what the future holds for all of us. This is truly a movement and a calling for us as human beings that will reach far beyond our lifetime. And we need that hope now more than ever. I do not know what this journey will bring, but I know it is one that we are destined to go on.

To end, if I could explain what heroism really means to me, I do not think I could ever say it more perfectly than the words of the great poet William Blake:

To see a World in a Grain of Sand And a Heaven in a Wild Flower, Hold Infinity in the palm of your hand And Eternity in an hour.

Heroism is only the beginning.
Introduction

The 21st century has marked a shift in research trends across a number of disciplines, especially due to the increasing relevance of technologies in our daily lives, and the demand for more complex and creative ways of thinking about our world. In particular, the focus in the sciences, psychology and the social sciences which have traditionally concentrated on the study of disease, evil, maladaptive and irrational behaviours, is now moving towards understanding positive behaviours and promoting personal and collective wellbeing. This has signalled an unprecedented rise in the study of such fields as resilience, spirituality, sustainability, leadership and more.

More recently, the academic community has witnessed a resurgence in the study of heroism. The roots of heroism are located in the mythologies and folklore traditions that human cultures have created and passed down through the generations, in both written and oral form (Allison and Goethals 2014; Campbell 1949). In the Homeric period the term “hero” was reserved for the Gods and mortals from noble lineage. This evolved to its ascription to demi-Gods, those who were part-mortal and part-Gods, in the Classical era. The morality of these figures was not a determining factor; the ancient Gods were often portrayed as corruptible and driven by vices. With the birth of the Christian era the ideas of courage, martyrdom and self-sacrifice for the greater good became synonymous with heroism, marking the beginnings of the modern incarnation of the concept. This shift was further enhanced by the accounts of brave and chivalrous medieval knights in Arthurian times (Isen 2010).

The present period signifies the entrance of the study of heroism into mainstream psychology, the social sciences and, finally, the sciences, culminating in “the rise and coalescence of heroism science” (Allison, Goethals, and Kramer 2017). Heroism and heroic individuals represent the pinnacle of humanity – what we can become, do, and experience. Heroism science seeks to uncover the many complex layers of this phenomenon which has fascinated us since the dawn of humankind, as we seek alternative interpretations of human behaviour in an uncertain future.

The purpose of this thesis is to undertake a transdisciplinary approach to heroism – that is, to highlight the value of synthesising various theoretical frameworks in the study of heroism, and transcend traditional disciplinary boundaries. The reason for this approach requires an understanding of the history and philosophy of science, the tensions that have existed historically between the humanities and the sciences,
and intellectual shifts gaining momentum since the middle of the 20th century. The Literature Review that succeeds this Introduction will offer a philosophical and pragmatic rationale for the adoption of this lens by the thesis.

It should be noted that due to the number of disciplines and theoretical perspectives employed, it is not possible to delve into each of their methods and epistemologies in depth. However, the basic tenets will be explored in terms of the extent to which they contribute to the investigation of the transdisciplinarity of heroism studies.

The thesis is guided by the following research question: How can a parallel reading of cultural, biological, psychological and social narratives of human behaviour enhance our understanding of heroism as a persistent phenomenon in lived experience in contemporary Western societies?

This enterprise involves both a critical analysis of literature in the emerging field of heroism science, and actively engaging with scientists, psychologists, educators and cultural analysts to identify bridges in approaches for the transdisciplinary study of heroism. This is deployed with methods such as ethnography and qualitative enquiry to illustrate the complementarity of stories of heroism across various fields.

Aims

The thesis aims to:

1. Identify common narrative structures in culture, biology and psychology, and consider strategies for finding common ground between them.

This thesis explores scientific and heroic discourse as comparable cultural narratives and products of human imagination and innovation. Kinsella (2012, 100) asserts the widespread contributions of the phenomenon across the "physical, social, and psychological" spheres. However, contemporary heroism research has been overwhelmingly focused on the psychosocial dimensions of these impacts. It is the scope and aim of this thesis to generate a definition across a broad range of contexts of heroism and its nuances. In doing so, it aims to shed light on the physical and biological aspects of heroism, in particular, which are nascent in contemporary research (Gray 2010; Kafashan et al. 2017; Preston 2017; Rusch, Leunissen, and van Vugt 2015; Smirnov et al. 2007). By setting the foundation for active collaboration across key disciplines, it seeks to promote research that identifies the broad psychological, social, spiritual, physical and biological aspects of heroism in everyday individuals.
In particular, the focus of this transdisciplinary thesis is to provide an outline of synergies between diverse fields which best capture novel and innovative interpretations of heroism. Therefore, the multiplicity of more traditional definitions and contexts of the phenomenon in specific literary works of fiction or films, ancient history, ethics and other such areas is not addressed. The fields chosen advance a transdisciplinary understanding of heroism. They have been targeted, in part, as largely neglected areas in emerging approaches on heroism and foreshadow the gaps this thesis aims to address.

2. Contribute to the broader discussion of developing critical, multi-perspective and dynamic wellbeing frameworks.

Heroism science is emerging as a field that is part of a broader movement which aims to foster holistic wellbeing, promote heroic awareness and action, civic responsibility and engagement, and build resilient individuals and communities in the face of increasingly complex social landscapes. Real-world social concerns such as school bullying, gang violence, workplace discrimination, bystanderism and debilitating diseases, are seeing heroism evolve into a tool for fostering community resilience and awareness. Specifically, this thesis explores the coalescence of heroism and leadership in the emerging concept of “heroic leadership” (Allison and Goethals 2014, 2015) and its forecasted benefits for individual, relational and community wellbeing.

3. Revisit and emphasise the importance of story and metaphor in the early 21st century.

In trying to find common ground between biology and culture in respect of heroism, story and metaphor are used as vehicles. A core aim of this thesis is to develop a deeper understanding of the role of complex narratives in our culture. This is couched in a broader awareness of the importance of story and narrative to wellbeing, and developing creative problem-solving and life strategies. A particular focus of this thesis is how hero stories and metaphors, and heroism science broadly, can contribute to rethinking “science as story telling and story revising” (Grobstein 2005); that is, viewing science as another story, but of a different kind and approach to observation. It is a framework that preserves the integrity of hero stories, presenting a baseline from which we can begin to dissect, review and expand on the mechanics of heroism, and story at large.
4. Explore the presence of heroism in specific applied contexts through the use of mixed methods, including in-depth interviews with experts across disciplines, ethnographic data, and analysing extant data sets through emerging theoretical frameworks of heroism.

This thesis aims to assess how heroism can be engaged with in the everyday through the analysis of qualitative and ethnographic data, using both extant, and new data sets collected during the doctoral candidature. Access to extant data sets was granted for Australian Research Council and local university funded projects.

The thesis assesses heroism in lived experience through:

(a) A qualitative enquiry of the function of story and metaphor in contemporary research practices across disciplines.
(b) Case studies of heroism education and promotion.
(c) An ethnographic perspective of individuals’ daily interactions with technologies, their personal devices and gameplay.
(d) A qualitative analysis of survey responses of creative workers’ career experiences in the creative industries post-graduation.

Through these applied contexts, this thesis attempts to address the gap in the absence of close readings of heroic life narratives from emerging research, both as a key observational tool and empirical methodology of such complex behaviours. These personal stories and lived insights showcase the centrality of transformative practice as a common denominator in the lived heroic experience.

Glossary of Terms

To help orient the reader in light of its reach, below is a glossary of key terms underpinning this thesis:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biopsychosocial</td>
<td>The biopsychosocial model of healthcare was developed in the latter part of the 20th century by psychiatrist George Engel. It is a model which maintains that clinicians must attend simultaneously to the biological, psychological, and social dimensions of illness.</td>
</tr>
<tr>
<td><strong>Consilience</strong></td>
<td>A concept that describes the fundamental unity of knowledge, and supports that the sciences and the humanities are essentially similar in their aims and scope.</td>
</tr>
<tr>
<td><strong>Embodied heroism</strong></td>
<td>A transdisciplinary understanding of heroism that embraces biology and evolution, but transcends it to consider the interrelationship between our bodies, our culture, our societies, perceiving, knowing and engaging with our broader environment, and metaphysical experiences beyond these.</td>
</tr>
<tr>
<td><strong>Embodied science</strong></td>
<td>A science focussed on the ethical use of technologies, diversity in human action and ethics, transformation, imagination and creativity, the integration of religion and science, and a shared vision for humanity.</td>
</tr>
<tr>
<td><strong>Hero</strong></td>
<td>(As understood in this thesis) Any person who has the ability, capacity or willingness to accept or endure – and in some cases impose on oneself and self-propagate – varying degrees of struggle throughout one’s lifespan; be shaped by this struggle and, under certain conditions, overcome or rise above it; resulting in its elimination or reduction at a particular instance of one’s life-cycle, and a deep irreversible transformation.</td>
</tr>
<tr>
<td><strong>Heroism/Heroic</strong></td>
<td>(As understood in this thesis) A process that describes behaviours manifested in the presence of a challenging event, morally, mentally and/or physically, calling the individual to rise to it, and culminating in some form of psychological, spiritual, physical and/or social transformation.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hero’s journey</td>
<td>The theory described by famed comparative mythologist Joseph Campbell in 1949 in the book <em>The Hero With a Thousand Faces</em>, that across cultures there is a similar concept of a remarkable individual who faces a challenge, experiences a revelation, attains new capabilities, overcomes the challenge and then brings the knowledge or benefit to the community.</td>
</tr>
<tr>
<td>Heroic leadership</td>
<td>Leadership that takes into account all the processes implicated by the hero’s journey and heroism science, and brings about numerous benefits to its actors.</td>
</tr>
<tr>
<td>Heroic leadership embodiment</td>
<td>Heroism as intelligent behaviour and a sustainable form of action and wellbeing based on the reintegration of body, mind and spirit.</td>
</tr>
<tr>
<td>Heroism science</td>
<td>The nascent multiple disciplinary field which seeks to reconceptualise heroism and its correlates through a close examination of the origins, types and processes of these interrelated phenomena.</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>The most radical form of interdisciplinarity which integrates the natural, social and health sciences in a humanities context, and transcends their traditional boundaries.</td>
</tr>
</tbody>
</table>
Overview of Chapters

This thesis is structured into seven interrelated but distinct chapters which examine heroism across the areas of enquiry outlined above. These chapters have been published (Chapters 1, 2 and 5) or accepted (Chapter 3) as articles for publication in peer-refereed journals following rigorous peer review; are undergoing peer review in peer-refereed journals (Chapter 6); or have been published as chapters in books with quality academic publishers following editorial review (Chapters 4 and 7).

These chapters are complementary and accumulate knowledge to address the thesis’ central research question: How can a parallel reading of cultural, biological, psychological and social narratives of human behaviour enhance our understanding of heroism as a persistent phenomenon in lived experience in contemporary Western societies?

Chapter 1, “Heroism Science: Frameworks for an Emerging Field.”

Background: Chapter 1 addresses the concept of interdisciplinarity, its distinct forms (including transdisciplinarity) and how they apply to heroism.

Aims: Outline the conceptual framework and preliminary definition for a new science focused on heroism, using interdisciplinary theory as a vehicle to generate an embodied science that is explicitly in service to humanity. This is used as a baseline to explore the value of promoting these connections in greater detail in Chapters 2, 4 and 7.

Methods: The chapter compiles a preliminary taxonomy of disciplines presently engaged in the study of heroism. Using interdisciplinary theory and select theories from the philosophy of science, it presents a preliminary definition of heroism science.

Findings: The preliminary taxonomy identifies underdeveloped areas of research activity and, importantly, a notable lack of communication between the sciences and the humanities (in respect of heroism).

Conclusions: Defining heroism science as an embodied science of story, serves as a foundation for viewing heroism as a vehicle for consilience and transdisciplinarity.

**Background:** Building on the notion that heroism research has begun to infiltrate contemporary research practices introduced in Chapter 1, Chapter 2 investigates interdisciplinary perspectives on heroism by drawing on in-depth interviews with experts in heroism science and other fields.

**Aims:** To explore story and science as products of human cultures, imagination and innovation, using the recent emergence of heroism research as a case study; and test the framing of heroism science as story telling and story revising presented in Chapter 1.

**Methods:** The chapter presents results from a qualitative study designed to assess the importance of heroism for research and education in the 21st century, through in-depth questions that were centred on the lived experience of researchers and educators. This study was approved by the Murdoch University Human Research Ethics Committee (Approval 2016/028), and conducted in accordance with University ethics and fieldwork guidelines. The purpose of this study was to develop a deeper understanding of the complex nature of heroism as a phenomenon that continues to be relevant in the 21st century, and evaluate its importance equally across the humanities, psychology and the sciences. These interviews were an opportunity for participants to reflect on their own perspectives on heroism, and research or training practices.

Experts were invited to participate in a 1-1 ½ hour long interview in person or via Skype (for overseas participants). Participants were provided with an information letter explaining the purpose of the study and asked to sign a consent form on or before the scheduled interview. Given that not all participants were experts in the field of heroism, they were instructed to answer the questions to the best of their ability. Participants were given the option to decline to answer, or state their opinion informally if there were any questions they did not feel they have sufficient knowledge of. They were also given the option to withdraw their consent to participate in this research at any time. The style of the interviews was generally structured around the questions. At the same time, it was open, allowing for a conversation style at points where the dialogic exchange was seen as benefiting the insights of both the interviewer and the interviewee.
**Findings:** Story and metaphor are found to be important methodological tools in participants’ contemporary research practices. The hero's journey, in particular, emerges as an interpretive apparatus that can inform interdisciplinary, novel and creative research practices, and facilitate the breakdown of increasingly dissolving disciplinary boundaries.

**Conclusions:** The compatibility of narratives of heroism and biology indicated in this qualitative study is a promising platform for re-introducing diverse ways of knowing and ameliorating the split between competing knowledge cultures in contemporary scholarship.

**Chapter 3, “Heroic Ecologies: Embodied Heroic Leadership and Sustainable Futures.”**

**Background:** Chapter 3 explores the wellbeing aspects of heroism touched on in Chapter 1 in greater depth. Specifically, it looks at heroism as an emerging broader movement within Western societies in terms of theories of sustainable development and heroic leadership. This builds on the notion of heroism as an embodied and philanthropic science presented in Chapter 1.

Chapter 3 takes a closer look at how emerging heroism research is beginning to translate into successful case studies of heroism education and promotion. Heroic overtones have always accompanied social movements and their discourse – the explicit use of everyday heroism as both a vehicle of social change and object of in-depth study across a range of disciplines, however, is emerging as a unique phenomenon. There is a renewed interest and increasing momentum being witnessed in a campaign to raise awareness of the phenomenon of heroism beyond the halls of academia and into numerous facets of society. This reflects the rise of an emerging social movement (Allison 2015; Franco et al. 2016).

**Aims:** How can approaching heroism as a 21st century case study for interdisciplinary research benefit society on numerous levels of human experience? What are the potential impacts from such research and who stands to benefit?

**Methods:** A rigorous literature review was used to develop a transdisciplinary framework informed by heroism, leadership, embodiment, sustainable development and wellbeing theories. This was then applied as a lens to an online review of two not-for-profit case studies. Discussion was additionally informed by personal
conversations with key actors and observations at research events in the field over the course of the candidature.

Findings: This chapter finds that heroic leadership is an emergent, dynamic and distributed form of sustainable development. It also finds critical connections between heroism, sustainability, embodied leadership and wellbeing, and how they stand to benefit each other, individuals and communities at large.

Conclusions: The application of heroic leadership in education, counselling, activism, organisations (and potentially more broadly) stands to offer important insights at both the community and policy level.

Chapter 4, “Heroism and Eudaimonia: Sublime Actualization Through the Embodiment of Virtue.”

Background: As with Chapter 3, Chapter 4 further explores the wellbeing aspects of heroism. This chapter considers the philosophical and psychological contours of a heroic mindset.

Aims: To look at how heroism and the Aristotelian concept of “eudaimonia” enhance each other and deepen our understanding of the good life, personal wellbeing and group flourishing.

Methods: A review of the literature on heroism, eudaimonia, story and wellbeing.

Findings: The inherent paradoxical nature of heroism means that personal and collective efforts toward heroic eudaimonia are intimately bound to the tragic. Suffering and the realisation of our own and others’ mortality is the pathway to heroic virtue and happiness. Heroism is defined as “wise pleasure” and satisfaction in a life or set of actions well executed, even if there are steep costs, marking moments of beauty/terror, life/death as pleasurable. This is a form of hedonic pleasure grounded in the personal embodiment of ethics and the achievement of the highest good for the “other.”

Conclusions: “Heroic eudaimonia” can be defined as a specific skillset that protects against the erosion of the actor’s principles and promotes virtue.
Chapter 5, “Heroic Play: Heroism in Mindful, Creative and Playful Participation.”

**Background:** Chapters 5 and 6 build on the notion of heroism as a skillset that can be applied in real-world contexts and foster sustainable development and wellbeing, discussed in Chapters 3 and 4. They look at its application in two settings: playful participation and career identity.

**Aims:** Chapter 5 aims to demonstrate how everyday individuals relay their daily interactions with technologies, their personal devices and gameplay as heroic, even though they might not be conscious of their own heroism (or even regard it as such); and how the creative, mindful and playful engagement with technologies may also be heroic.

**Methods:** This chapter analyses participant outcomes from Australian households drawn from an Australian Research Council project. This work was a result of interviews conducted outside the candidature in a paid research support capacity with participants in *The Game of Being Mobile*. This was the first national Australian study to examine the social uses of mobile gaming, funded by an Australian Research Council Discovery grant (DP140104295) and led by RMIT University, Melbourne, Australia. The chapter is based on fieldwork and interviews with participants in Australian households in Perth and Adelaide through ethnographic methods over three years (2014-2016). Households varied in age, gender, occupation, family structure and gaming practices. *The Game of Being Mobile* explored how mobile game consumption is reflecting, and being shaped by, complex social and technological practices integral to contemporary life. Given the prevalence of mobile, locative and social technologies in public and private spheres (Hjorth and Richardson 2009, 2014), examining heroism in relation to their use was an avenue of immediate relevance to the thesis. This provided a unique opportunity to build on emerging research in this field (Klisanin 2010, 2012, 2015, 2017) and view the data through the lens of heroism science.

**Findings:** Participant accounts indicate that everyday Australians are, to a certain extent, creatively using technologies to re-imagine and re-invent themselves and their environments, both online and offline. These are emerging examples of how people are beginning to embody the cyberhero archetype in their everyday lives, through the very tactile, strategic and imaginative use of their personal devices. The chapter finds “heroic play” as a type of transformative, mindful and creative playful participation, indicating the potential for the banality of playful heroism in the everyday.
Conclusions: Insights garnered from this chapter are drawn from a limited number of participants; further directed and systematic research will need to be conducted to determine how widespread these practices are.

Chapter 6, “Creative Careers: A Heroic Leadership Perspective.”

Background: In terms of scholarly inquiry, the exploration of heroism within the context of career development is relatively new. Whilst much career development and employability research has focused on graduate destinations and the development of requisite skills and knowledge, the factors that energize a graduate to persist remain an important and under-studied area of employability research. This makes career development an ideal area for the study and assessment of heroic leadership.

Aims: To extend the empirical assessment of everyday heroism, by exploring the presence of heroic leadership in graduate creative workers’ career attitudes and identity. This chapter is driven by the following research question: how might contemporary creative career aspirations and journeys be described as heroic, and benefit from emerging research on heroic leadership?

Methods: The analysis of qualitative extant data sets from the interdisciplinary Australian and international project, the Creative Workforce Initiative (CWI), led by Curtin University, Perth, Western Australia. This study aimed to assess what makes creative workers successful and employable, by capturing their intricate and diverse experiences through a workforce survey. Access to the survey’s qualitative responses was granted by CWI’s Chief Investigator and co-author for this work, Professor Dawn Bennett, Curtin University. The research here focused on a sample of 183 Perth practitioners from across the creative industries.

What made this survey especially appealing for the purposes of the thesis was its emphasis on life story and formative events, as well as the distinct challenges faced by the creative industries compared to other occupations. Thus, a qualitative assessment of these responses offered an ideal opportunity to explore how viewing the career journey as a lifelong hero’s journey metaphor relates to the presence of risk and transformation in graduate careers, with a special focus on employability in the creative workforce.
Findings: This chapter finds further qualitative support for the importance of heroic leadership in lived experience and its promotion of wellbeing. It supports the value of its assessment against qualitative data in diverse settings presented in Chapters 2 and 5. Qualitative responses from the cohort of Australian creative workers revealed alignment of the creative artist’s career journey with the hero’s journey, and with associated themes of suffering, dedication and rites of passage. Three types of heroic leadership are identified as essential to employability success: psychospiritual, social and physical.

Conclusions: Heroic leadership is beneficial for equipping creative workers – and potentially other graduates and job seekers – with the resources to better manage the increasingly precarious 21st century labour market. Future directions for research to advance knowledge of career identity and heroic leadership are needed.


Background: The final chapter is the most theoretically complex in the thesis, and rests on the foundations developed in the previous chapters. Its perspective is a reflection of intellectual shifts towards greater interdisciplinarity.

Aims: To contribute to growing heroism research by considering the role of embodiment in the heroic process and experience, which has hitherto been neglected in the literature.

Methods: The joint reading of contemporary and traditional phenomenological embodiment schools of thought – in particular Merleau-Ponty’s (1962, 1964) address of contemporary heroism and his legacy, together with Allison and Goethals’ (2014) Heroic Leadership Dynamic – is used to form an “embodiment of heroism thesis.” Heroism is mapped across five areas of embodiment: the biological; the ecological; the social; the cultural; and the phenomenological. Physical Intelligence and Flow theories are also used to develop this transdisciplinary understanding of heroism.

Findings: Heroism is defined as a distinct state of embodied consciousness accessible to all human agents in everyday lived experience.
Conclusions: The chapter concludes with the introduction of a transdisciplinary epistemological and methodological framework, the *hero organism*, as work in development alongside the discovery of the processes, functions and consequences of heroism and heroic leadership.

I conclude the thesis by drawing key insights from the various perspectives brought together herewith, a summation of the limitations of the present work, and indicative pathways for furthering heroism science research. In particular, I outline the rife and exciting opportunities that exist for the field in the spectrum of a biopsychosocial framework. I summarise the broad anticipated benefits and characteristics of a transdisciplinary, open and story driven science of heroism, before embarking on concluding remarks on the profound test that the question of heroism poses for humanity.

A Note on Thesis by Publication Style, Formatting and Referencing

This PhD thesis comprises a number of research papers which have been published, accepted for publication, or are undergoing review. These formatted documents are incorporated into the thesis along with additional text that has been provided to introduce and link the published (or forthcoming) work. It is hoped that the final amalgamation allows for the development of a cohesive body of research that can be easily followed.

The PhD thesis has continuous pagination, which can be seen at the bottom centre of each page. For published documents, the original journal and book page numbers are also provided.

Thesis chapters are presented in the format they have been published, accepted or submitted for publication, as per Murdoch University’s Graduate Research Degrees Thesis Style Guideline: Thesis by Publications/Manuscripts.

Due to the style of the thesis by publication, a reference list is included at the end of each chapter/publication. The referencing style and formatting differ from chapter to chapter, reflecting the specific guidelines for each publication outlet. A full bibliography is provided at the end of the thesis in the preferred referencing style for the School in which candidature was undertaken, and adopted herewith (Chicago, 16th Edition).
Literature Review

In the spirit of transdisciplinarity, the literature review that follows highlights interconnections between the fields that inform the investigation of heroism in the thesis. Each section in the review feeds into each other, forming a cohesive thread that supports the aims of the thesis.

It must be noted that this literature review involves some repetition of material that will also be covered in the thesis chapters, due to the nature of the thesis by publication format, and in order to comply with Murdoch University's Thesis by Publication Guidelines.

The purpose of the literature review is to orient the reader by serving as a comprehensive overview of the major fields that drive the transdisciplinary enquiry of the thesis, in preparation for the key discussions that will take place.

Transdisciplinary Theory and Consilience

This thesis is an exploration of the value of diversity in knowledge-making processes. Krohn (2012, 32) outlines the epistemic concerns and revisioning of scientific enquiry at the core of interdisciplinary enterprises:

> Interdisciplinary research constitutes a relationship between individual cases and more general knowledge bases … This relationship demands a new mode of knowledge … It calls for a combination between the ‘humanistic’ ideal of understanding the individual specificities of just one case, and the ‘scientific’ search for common features of different cases… [It] supports a critical reassessment of the received concept of scientific law and exemplary application [emphasis added].

The Western intellectual tradition has been historically steeped in dualism and disciplinary boundaries. It was not until the 19th century and the widespread scientific and social changes brought about by the Enlightenment, however, that this divide became pronounced (de Melo-Martín 2010; Easterlin 1999; Wilson 1998). Scientist and novelist C. P. Snow’s landmark Rede Lecture in 1959 spawned a heated debate on “the two cultures" of the sciences and the humanities that continues to this day – this was the idea that the sciences and the humanities are considered distinct areas of knowledge. Although Snow’s (1959) own predilections leaned towards science, his work addressed the dangers that we stand to face as a result of this divide (cited in de Melo-Martín 2010). Cohen (2001) outlines a brief
history of the enduring resistance towards the unification of the two cultures, up to and including present day assertions that a case for the divide is no longer valid. Arguments for the latter have been centred on shifts in attitudes and epistemologies such as the “development of interdisciplinary science studies programs and methodologies” (Cohen 2001, 10). These include the dual study of literature and science as a valid form of enquiry.

Such significant milestones have been instrumental in advancing the view that “elevating science above other forms of knowledge is untenable on a foundational level” (Cohen 2001, 10). Cohen (2001, 11) argues that the traditional two-cultures debate has evolved into a similar yet divergent version of “science wars” in the late 20th and early 21st century which questions whether the divide exists. These are now playing out in two camps: “hard” scientists who pit themselves against those who study and critique science; and science studies intellectuals who bridge, blur or deny the gap. However, scholars such as Barash (2005) maintain that this divide is still very real. Others (Wilson 2001) comment on how there has been increasing unification within the sciences, but not between “conflicting” disciplines such as the humanities and the sciences. Hence, some boundaries have gradually dissolved but the vaster ones remain.

Building on Snow’s (1959) lecture, noted biologist Edward O. Wilson (2001, 12) expounded on his “consilience program” which addressed the convergence of disciplinary silos. In his seminal keynote address, Wilson (2001, 12) revitalised the notion of “consilience” or “the fundamental unity of knowledge”; this was an attempt to bridge the perceived gap between the knowledge cultures of the sciences and the humanities that was the subject of Snow’s lecture and well-known book, The Two Cultures and the Scientific Revolution (1959). Wilson (2001, 12) asserts: “The central question of general scholarship is whether all of knowledge is intrinsically consilient, that is, whether it can be united by a continuous skein of cause-and-effect explanation and across levels of increasingly complex organization.”

It is important to acknowledge that there have been a number of critiques levelled at the theory of consilience, namely its biological determinism and reductionist characteristics, as well as its failure to address the “problem of psychology” (Henriques 2008). Garrard (2010, 25) explains, highlighting the value of bringing in story to the consilience conversation:

As Wilson’s weaker vision of consilience admits, the laws that apply at one level of explanation (e.g. physics or neurology) can be used to constrain but
not to *prescribe* or even *predict* what will be found at the next level of complexity (e.g. chemistry or psychology); literature as such has emergent properties that may make it blessedly resilient to the most reductive of accounts.

In highlighting both the fragmentation of knowledge and the convergence of the two cultures within the consilience program, it is the aim of this thesis not to suggest a singular method of enquiry as proposed by Wilson (1998, 2001), but rather to forward a more authentic and non-hierarchical union between the disciplines. By using heroism as a case study for consilience this thesis aims to identify common narrative structures in culture, biology and psychology, and strategies for finding common ground between them by developing and applying consilient theoretical frameworks.

There has indeed been increasing recognition of the role of interdisciplinarity to research and education practices (Frodeman, Klein, and Mitcham 2012). Choi and Pak (2006) and Klein (2012) distinguish between three forms of interdisciplinarity: “multidisciplinary,” “interdisciplinary” and “transdisciplinary” research. The broad targets of all these interrelated but distinct forms of interdisciplinarity are “to resolve real world or complex problems, to provide different perspectives on problems, to create comprehensive research questions, to develop consensus clinical definitions and guidelines, and to provide comprehensive health services” (Choi and Pak 2006, 351). Choi and Pak (2006, 351) propose that “[t]he more general term ‘multiple disciplinary’ is suggested for when the nature of involvement of multiple disciplines is unknown or unspecified.” As defined by Choi and Pak (2006, 351) multiple disciplinary research may employ:

- A multidisciplinary approach, which “draws on knowledge from different disciplines but stays within their boundaries.”

- An interdisciplinary approach, which “synthesizes and harmonizes links between disciplines into a coordinated and coherent whole.”

- A transdisciplinary approach, which “integrates the natural, social and health sciences in a humanities context, and transcends their traditional boundaries.”

The term “transdisciplinary” is arguably the most radical and creative (and the most difficult to achieve) of the three forms, as it integrates frameworks across the
cultures of knowledge. By its nature, it transcends boundaries and creates something entirely new in ways that are unexpected in a humanities context. These three branches of multiple disciplinarity may be addressed in relation to the degree of radicalism and innovation in transcending boundaries between disciplines – from lowest to highest these would be multidisciplinarity, interdisciplinarity, and finally, transdisciplinarity.

To clarify this radical nature of transdisciplinarity, le Breton (2014, 3) explains:

Transdisciplinary research is distinguished from traditional disciplinary, interdisciplinary, and multidisciplinary research, in many ways. Transdisciplinarity is driven by the inquiry, rather than by disciplinary agendas and methodologies. Informed by complexity theory and cybernetics, transdisciplinarity values holistic and integral knowledge, as distinct from reductionist and fragmentary knowledge. Transdisciplinary inquiry integrates the researcher into the research, thereby dispelling the illusion of objectivity. A transdisciplinary orientation is meta-paradigmatic, a paradigm about paradigms, for it questions philosophical assumptions underlying the construction and organization of knowledge, including its own paradigm. Transdisciplinary inquiry evokes a spirit of creativity and transgressiveness, for it is able to cross, ignore or transcend disciplinary boundaries.

This transdisciplinary thesis seeks out a new epistemology in the context of science as narrative, by revisiting heroism from cultural, psychological and scientific perspectives as a different kind of story, situated in lived experience. No other research in the emerging field of heroism is approaching study of the phenomenon in this manner, or with this degree of transdisciplinarity. This transdisciplinary pursuit aims to contribute to the agenda of the new humanism discussed by Easterlin (1999, 145) and its vision to help us “become much better knowers,” revealing the central role narrative plays in this enterprise. In the process, it aims to bring back to focus the “distorted image” the knowledge cultures of the humanities and the sciences have of each other, which Snow (1959) expressed in his famous debate with disappointment (cited in de Melo-Martín 2010, 6). The rethinking of heroism not merely as a superior state of humanity (or indeed as outside the scope of humanity in its superhuman ascriptions), but rather as something innate and firmly embedded within everyday life itself, will contribute to this re-focusing.
This thesis is novel in its attempt to examine in-depth the insights the humanities and the sciences can offer to heroism. The study of heroism as a bridging template could prove valuable for infusing the much needed “imaginative understanding” in scientific narratives sought by Snow (1959), reconciling the knowledge cultures (cited in de Melo-Martín 2010, 9). The inclusion of psychology as the “third” culture is a further asset to this endeavour. Bandura (2001, 12) champions psychology as “the integrative discipline best suited to advance understanding of human adaptation and change.” Through its parallel consideration of “intrapersonal, biological, interpersonal, and sociostructural determinants of human functioning,” it has the potential to articulate “a broad vision of human beings” in this era of accelerated globalisation (Bandura 2001, 12).

De Melo-Martín (2010, 6) observes that “[f]or Snow, … the main trouble is that this breakdown in communication between the sciences and the humanities presents a major impediment to solving the world’s problems.” Any venture in the nascent field of heroism science must therefore consider its impacts to some extent in real-world and community contexts. Krohn (2012, 31) presents three further types of interdisciplinarity: “interdisciplinary case work … interdisciplinary communication … [a]nd … interdisciplinary fusion.” Interdisciplinary case work or problem solving is cited as being of prime importance. Indeed, “most problems when they first appear are too complex for just one or two disciplines. … If complexity is added interdisciplinarity is needed” (Krohn 2012, 31). Krohn (2012, 31) adds: “The most complex problems are so-called ‘real-world problems’.” The need to tackle real-world problems has been a propellant that has resulted in, and continues to result in, the fusion and congregation of various disciplinary knowledges under the common platform of heroism.

Krohn (2012, 32) states that “research requires interaction between disciplines … Whatever drives people into highly complex interdisciplinary projects … the need for manageable objects and presentable results in their reference community drives them out again.” This is indeed being witnessed with the advent of the empirical observation and scientific era of heroism. The need for tangible results and data is driving the use of various psychological and broader scientific testing methods of heroism – such as prototype analysis (Kinsella, Ritchie, and Igou 2015a), the identification of lay concepts of heroic behaviour (Allison and Goethals 2013; Goethals and Allison 2012; Franco, Blau, and Zimbardo 2011; Kinsella, Ritchie, and Igou 2015b), and genome sequencing of resilient biochemistries of “genetic heroes” (Friend and Shadt 2014) – for the first time in the history of its study, confining
researchers momentarily back into disciplinary silos. But the implication of certain other factors drives such research a step further. As Krohn (2012, 32) adds:

> If … public and political concerns are strong enough to exert a more permanent pressure, the difficult process of discovering and shaping the components of a complex problem can continue and generate a complex field of interactive interdisciplinary research.

This marks a key turning point in the observation and analysis of heroism, as an instrument for the resolution of pressing global issues (Chapter 1).

Former US President Barack Obama has made references to the pervasiveness and relevance of everyday heroism on more than one occasion (NBC News 2013; Obama 2012). World renowned social psychologist Philip Zimbardo immediately saw the potential of this research avenue over a decade ago, and has since spearheaded such initiatives as the Heroic Imagination Project aimed at developing applied frameworks of heroism in the everyday (Chapter 3). Over the past decade, a strong sense of “curiosity” and “social responsibility” towards these “real-world cases” (Krohn 2012, 32) has fuelled growing collaborations between psychologists, other scholars, and passionate heroism promoters and educators. The complex “problem” of heroism has generated the complex interdisciplinary field of heroism science – this will be a major pre-occupation of the thesis within the broader fragmentation of the cultures of knowledge, and the value of their union for contemporary settings.

**Story and Science**

Myth and science have had an uneasy relationship, certainly in the evolution of Western thought. Segal (2009) provides an overview of the relationship between myth and science throughout history. Indeed, it is important to recognise that there has always been some kind of relationship between the two, whether at odds or in some degree of agreement with each other. Cummins and Burchell (2007, 1) argue that developing research is offering “new insights into the complex interaction of science, literature, and rhetoric in the emergence of new types of knowledge about the natural and human worlds in the early modern period.” They present emerging research evidencing how literature and rhetoric were in fact important in the rise of the scientific revolution and naturalism; this cultural revolution was marked by complex and at times competing social dynamics and philosophies. Notably, Cummins and Burchell (2007, 2) contend that “the impact of natural philosophy on
the early modern intellectual landscape depended on the effective use of rhetorical
and even dramatic techniques to communicate and develop new ideas.” This
reveals science as generating its own cultural mythologies, denoting the value of an
interdisciplinary approach to the study of science and story.

If both hero myths and the study of the universe and life are as old as humanity
itself, then studying the interrelationship between myth and science in the context of
heroism science is crucial. Segal (2009) outlines three broad themes of this
relationship in modern times. With the advent of science in the 19th century the role
of myth, which intersected with religion, was devalued; hence, “myth and science
were commonly taken to be incompatible” (Segal 2009, 337). In the 20th century
“myth and science were usually taken to be compatible, so that one could
consistently accept both”; this is “the ‘scientizing’ of myth” (Segal 2009, 337, 340). In
this view, science still has supremacy, as it is used to validate myth. The key
distinguishing factor here is that “[i]nstead of setting myth against science, this tactic
turns myth into science” (Segal 2009, 340). In the 21st century the trend “Myth as
True Science” is witnessed: here science is questioned as the paramount truth
(Segal 2009, 338). An illustration of this is the rise of religious fundamentalism
towards the end of the 20th century and now into the early 21st century, with biblical
scriptures taken literally as the absolute unquestionable truth. Some might argue
this is myth or the pre-modern consciousness fighting back, having been oppressed
and devalued for over two centuries.

Such categorisations of humanity into the “pre-modern” and the “modern” have
arguably resulted in enduring misinterpretations and flawed divisions between
philosophy in respect of this unduly turbulent relationship in human history. For Lévi-
Strauss (1966) myth is “no less scientific than modern science”; rather, myth and
science represent “two strategic levels at which nature is accessible to scientific
enquiry: one roughly adapted to that of perception and the imagination: the other at
a remove from it” (cited in Segal 2009, 348). This viewpoint is refreshing and
echoes Wilson’s (2001, 13) assertion in respect of the divide between the sciences
and the humanities:

The solution to this problem ... is the recognition that the divide is not a fault
line, and in fact is not a line at all. It is instead a broad domain of poorly
understood mental phenomena awaiting cooperative exploration from both
sides.
Our contemporary education has conditioned us to perceive human history in a linear ascending line, as different stages in the journey of human evolution in progress narratives across the disciplines, from the pre-modern to the modern to the postmodern. Viewing these commonly perceived demarcated lines of human knowledges as distinct stages causes endless disagreement between sides as to whether science or myth has priority over the other. This results in the upholding of certain narratives of human evolution in one camp, or completely devaluing the idea of evolution and championing the “primordial ways of the ancients” in the other.

Lévi-Strauss’ (1966) conception is arguably revolutionary in the sense that his thinking points to the idea of myth and science, and by implication the sciences and the humanities broadly, as but flip sides of the same coin. If both myth and science are grand narratives then we can think of myth as being on an equal footing to science – just spoken, interpreted and expounded in a different language to science. In ancient myth, language is used to define and analyse physical and abstract concepts. This is perhaps no less scientific, but an example of the use of different words (or their arrangement in different ways) that seem to be more “poetic” than scientific. It is also notable that the rising thread of 21st century thinking to denigrate science as myth is contradictory – it is using the mythic in a derogatory sense, yet myth is the very thing its proponents are trying to re-assert as superior. If we can start to re-conceptualise at their very core our perceptions of both the meaning of science and myth interchangeably we can start a dialogue in this consilience vision of heroism. This involves viewing myth as a form of science, and science as a form of myth, not in a derogatory sense but rather, as Landau (1984) suggests, as knowledge-making forms of story or narrative. We could start to view science as another story, but of a different kind and approach to observation.

Popper (1974) echoes this thinking: “what we call ‘science’ is differentiated from the older myths … by being accompanied by a second-order tradition – that of critically discussing the myth … A definite story was handed on.” In this sense, for Popper (1974) “science is myth-making just as religion is” (cited in Segal 2009, 349). This highlights the value in re-conceptualising both myth and science as different forms of stories, perhaps even of the same story of the universe and humanity, told by two kin authors. But at the same time, there is the assumption that pre-modern mythological thought was unquestioned and modern scientific thought is questioned. There is a danger in this assumption, which can again perpetuate illusions still so prevalent in our times, and does not adequately encapsulate Lévi-
Strauss’ (1966) philosophy of the co-existence of myth and science as strategic levels of perception, not stages.

The need for reconciliation of the two perceived warring worlds of myth and science is also aptly highlighted by Campbell (1972, 11-12):

Are the two, on every level, at odds? Or is there not some point of wisdom beyond the conflicts of illusion and truth by which lives can be put back together again? ... [W]e must now ask whether it is not possible to arrive scientifically at such an understanding of the life-supporting nature of myths that, in criticizing their archaic features, we do not misrepresent and disqualify their necessity – throwing out, so to say, the baby (whole generations of babies) with the bath.

In the midst of this divide, thinkers such as Landau (1984, 267, 268) have asked: “[a]re narratives testable?” and “whether narrative ... is an appropriate form of scientific hypothesis.” In an attempt to offer a critical rationale for the bridging of the sciences and the humanities, and instead of continuing to simply dismiss narratives (or the humanities) as inferior to scientific account, Landau (1984, 268) asserts that “a more realistic solution may be to treat narratives even more seriously than before. Rather than avoid them, scientists might use them as they are used in literature, as a means of discovery and experimentation.” As Kermode (1967, 24) argues, “[i]f we cannot break free of … [stories], we must make sense of them.”

Scientists such as Grobstein (2005) argue for the revisiting of the place of science in human culture, with both narrative and wellbeing taking centre stage in this emerging epistemology. Likewise, Freese, Li and Wade (2003, 233) argue for the “potential relevances of biology to social inquiry.” A consilient exploration of heroism can contribute to this agenda via the utilisation of unified perspectives and methodologies. Fensham (2001, 2) asserts that “behind every advance in science there is a human story.” If story lies at the heart of both heroism in its “epistemic function” (Allison and Goethals 2014) and science, then this shared foundation demands their dual examination and reveals them as consilient narratives. Further, if as Garcia-Lorenzo, Nolas and de Zeeuw (2007) propose, storytelling is essential to the “practice of collaboration,” this investigation provides an ideal platform to explore the broader issue of consilience and the unity of knowledge across disciplinary cultures.
The coalescence of this theme of the importance of effectively communicating scientific concepts and discoveries to the public, as well using them in ways that benefits public wellbeing, aligns with the shift underway in the revision of the role of science as open story. Grobstein (2005, 4, 10) cites Brockman’s (1991) notion of a “third culture” in which ‘scientists are communicating directly with the general public’; this is a call for “a less divisive and more widely engaging story of science.” Grobstein (2005, 4) is a staunch supporter of this open and participatory model of science:

the evolution of understandings of science is too important to be left solely in the hands of a closed community of scientists. What is needed is indeed an “army,” a more diverse array of human beings who have in common a shared sense of science as a valuable component of human culture and a willingness to shoulder the burden of making it into what it has the capability to become.

In the same vein, Nosek and Bar-Anan (2012, 217) argue that “[e]xisting norms for scientific communication are rooted in anachronistic practices of bygone eras making them needlessly inefficient”; the authors present “a path that moves away from the existing model of scientific communication to improve the efficiency in meeting the purpose of public science – knowledge accumulation.”

“Open science” is defined by “increased collaboration at numerous stages in the process – data sharing, code sharing and idea sharing” (Wolkovich, Regetz, and O’Connor 2012, 2014). In her exposition of the “Open Knowledge Foundation,” Molloy (2011, 1) supports that “[t]he more data is made openly available in a useful manner, the greater the level of transparency and reproducibility and hence the more efficient the scientific process becomes, to the benefit of society.” Grobstein (2005, 10) acknowledges that the lack of technical training and expertise is bound to be exclusionary in “particular activities within science, but the enterprise itself can be made broad enough to involve anyone interested in participating.”

Grobstein (2005) champions the need for story as an avenue for resolving the division between the two cultures. Quoting Snow (1963), Grobstein (2005, 2) sees this as an answer to the “practical and intellectual and creative loss” of this split. Grobstein (2005, 3) observes how Snow’s (1963) forecasts of this division are “increasingly significant in practical life worldwide, at scales ranging from international conflict to national policy to interactions between individuals in educational and other contexts.” The importance for scientists or those engaged
with science in some form to recognise how many different stories of science exist, as well as the sometimes unfavourable reception of science, is highlighted. As a prime vehicle in advancing this agenda, Grobstein (2003, 1) proposes an attitude that is the “embodiment of permanent skepticism.” This is exemplified in Grobstein’s (2005, 4) model of “science as story telling and story revising”:

Science has the potential to be what we all collectively need as we evolve into a world wide community: a nexus point that encourages and supports the evolution of shared human stories of exploration and growth, an evolution in which all human beings are involved and take pride … For this to happen, we all need to work much harder to not only reduce the perception of science as a specialized and isolated activity of the few but to make it in fact the product and property of all human beings.

Understanding the history of the tensions between story, myth and science will be an important consideration in the transdisciplinary investigation of heroism in this thesis, an approach which questions our assumptions within both scientific and humanistic inquiry.

**The Hero’s Journey in Scientific Enquiry**

Celebrated comparative mythologist Joseph Campbell’s 1949 work *The Hero with a Thousand Faces* on the hero’s journey, is now considered to possibly be the most famous text in the study of heroism. The hero’s journey model details the discreet stages that a hero undergoes to achieve hero status, as a common pattern informing the narrative structure of myths from diverse human cultures around the world and historical periods. According to Campbell (1949), the heroic journey commences with a call to adventure (which can be heeded or denied initially) demanding a physical and emotional departure from the protagonist’s reality. An initiation into an extra-ordinary and unknown world ensues, followed by rites of passage, the discovery of a boon and the return to the ordinary world, resulting in a deep personal transformation.

It should be noted that heroism studies implicitly tap into transformative enquiry and there are many facets of the heroic experience that are by nature transformative (Allison and Goethals 2017). Rather than identifying it as a separate field, aspects of transformative enquiry are embedded in the discussion throughout the thesis.
How can the hero’s journey enrich our understandings and interpretations of science? Landau (1984, 262) asserts, much like Campbell (1949), that we can trace “storytelling to the very roots of human history” and that “different versions of reality ... are shaped by these basic stories.” This warrants the investigation of a “new humanism” based on a “bioepistemological perspective, [that] reconnects literature with human life through scientific insight, and ... allows us to speculate on the function and meaning of literature within the entirety of human knowledge” (Easterlin 1999, 146). For Landau (1984, 263), the joint investigation of science and heroic tales is “a method which allows us to describe individual stories as variations on a basic narrative or deep structure.” On this basis, Landau (1984) illustrates how the hero myth and its various stages can be applied to the Darwinian, and most influential post-Darwinian evolutionary theories. Each translation of an evolutionary scientific theory into a hero narrative is a variation on the basic narrative structure. But what they all have in common is the point of origin, the “initial situation” and call to adventure, or “a shift from the trees to the ground (terrestriality)” and the ultimate end result – the “triumph” or the emergence of “technology, morals, and society (civilization)” (Landau 1984, 264).

As part of the undertaking of an exploration of the hero’s journey “as a means of discovery and experimentation,” heroism becomes a paradigm for putting narrative to the test. Is the hero’s journey an appropriate form of scientific hypothesis? Recent research such as Monteiro and Mustaro’s (2012) representation of the hero’s journey utilising bifurcation theory is a prime example of a scientific (in this case mathematical) analysis of the hero’s journey and the consilience of knowledge. Crucially, bifurcation theory relates to the change suffered in the equilibrium of time-dynamical systems – this links back to the idea of tests or ordeals being an integral aspect of the hero’s journey model and the very making of a hero. A hero figure’s evolution across “200 worldwide highest-grossing films,” is measured against the “cumulative suffering” experienced throughout the journey as the “control parameter” of the proposed context specific “discrete-time dynamical system,” rendering change inevitable (Monteiro and Mustaro 2012, 2233). It is notable that Monteiro and Mustaro (2012, 2234):

in the bifurcation diagram, the first critical moment of the hero’s journey coincides with the transition from fixed point to chaos; the second one with
the transition from limit cycle to fixed point. The two crucial moments in every hero’s journey are unique.

This reading of the hero’s journey is a unique way of telling a new story of science with “skill” and “imagination” (Landau 1984, 268), or enriching an existing story or stories. The cross-reference of both scholarly traditions – in this case, mythology and mathematics – helps inform each other and produce a rich novel hybrid narrative. A core aim of this thesis is to investigate the possibility of treating scientific theories as language we might re-interpret, or rather co-interpret, with the assistance of the humanities.

**Embodiment**

If we revisit human evolution as narrative we might ask ourselves: Do cells talk? Are they trying to tell us a story but we do not fully understand their language? If so, do we need to re-wire the way we conceive of science presently as testing something “out there,” disconnected from who we are? What is their message? Seminal feminist philosopher of science Donna Haraway (1988, 197, 198) in her exposition of the “apparatus of bodily production,” advocates that “[s]ituated knowledges require that the object of knowledge be pictured as an actor and agent.” This three-dimensional, interactive and unorthodox view of our own body as an “active entity,” a “witty agent” and “a most engaging being” (Haraway 1988, 198, 199), can greatly contribute to the (re)telling of scientific stories of regeneration via the lens of “heroic” biological and cognitive agents. Viewing our body in this way will be one of the methods employed by this thesis in the co-interpretation of the sciences and the humanities through story, in the context of heroism (Chapters 2 and 7).

The mind-body dichotomy, that is, the long-held view that the mind and the body are fundamentally distinct, is one of the enduring debates of Western philosophy. This was probably made most popular by French philosopher René Descartes in the 17th century (Young 1996). For centuries, this position assumed that the brain’s development remained fixed following our formative years. Tremendous advances in the cognitive sciences spanning a vast array of disciplines, however, have forced us to rethink these longstanding assumptions. This has resulted in a renewed interest in the centrality of the body since the mid-20th century, giving rise to the “embodiment” school of thought (Johnson 2008, 2010).

In this thesis, heroism is posited as a distinct state of embodied consciousness (Chapter 7). The core theories of embodiment on which this thesis draws are:
(a) French philosopher Merleau-Ponty’s (1962, 1964) phenomenology and its interpretation by contemporary embodiment theorists. Merleau-Ponty is widely known as the “father” of embodiment, and his work is used as a lens through which to address the corporeal aspects of contemporary heroism (Chapter 7). Merleau-Ponty (1964 and 2012) argued that “there is no hard separation between bodily conduct and intelligent conduct; rather, there is a unity of behaviour that expresses the intentionality and hence the meaning of this conduct” (cited in Moya 2014, 1). This is a non-reductionist view of the mind and body. It is this idea of an “embodied mind or a minded body” (Gallagher and Zahavi 2008, 153) that integrates and “transcends the physiological and psychological” (Merleau-Ponty 1964 and 2012, cited in Moya 2014, 1) dismantling the mind-body dichotomy. Accordingly, the concept of a “body” in this thesis is not confined to traditional biological interpretations. It is a transdisciplinary understanding that embraces biology and evolution, but transcends it to consider the critical interrelationship between embodiment, perceiving, knowing, the broader environment, and metaphysical experiences beyond these.

(b) Ecological psychology which addresses the agency of organisms within their broader environment (Chapters 3 and 7). The foundation of ecological psychology “is the question of how organisms make their way in the world (and not the historically popular question of how a world is made inside of organisms)” (Turvey and Carello 2012, 4), suggesting an “organism’s hero journey.” Based on the work of influential American psychologist James J. Gibson as one of its main proponents, ecological psychology joins embodiment literature in the battle against the mind-body dualist tradition and attempts to ameliorate its damage:

It is clear that for the past 50 years, an alternative paradigm has developed within psychology that does not suppose that the brain is the seat of intelligence … Once James Gibson became disaffected with the dominant paradigm (which really dates to the 1600s …) and questioned the assumptions on which it rested, a natural-physical approach to perceiving, acting, and knowing proceeded inexorably. (Turvey and Carello 2012, 25).

In line with this approach, heroism is proposed to be physically generic or embedded and embodied in the everyday.
As highlighted, the lived experience of heroism is a central focus of this thesis. Heroism largely remained the prerogative of myth and the humanities from the late 15\textsuperscript{th} century until the mid-20\textsuperscript{th} century, even as we witnessed the advent of science during the Enlightenment. This period, however, marked a shift in the hero in history from the Christian notion of sacrifice and the transcendental, to its grounding in the everyday individual with German idealist philosopher Georg Hegel (1770-1831). This central feature can be said to be characteristic of the increased infiltration of heroism as a form of core human action and civic engagement (Chapters 1 and 3). The concept of embodied everyday heroism is addressed throughout the thesis.

**Heroic Leadership**

Heroic leadership is a major theoretical framework used to assess the value of heroism in lived experience in this thesis – this concept is fundamentally informed by the hero’s journey and Joseph Campbell’s work. There has been some debate on the appropriation of heroism to leaders, with calls for a “post-heroic knowledge era” (Davis 2010, 43) of leadership. Lindsay (2013, 13) makes a case for the fallacy of the “leader-as-hero myth” in which our society has deep “cultural, historical and emotional investment.” McLean and Wells (2010, 54) note a significant “paradigm shift” away from a “Newtonian, reductionist, objective, one-dimensional, controlling, heroic model of leadership.” Similarly, Sinclair’s (2007) *Leadership for the Disillusioned* is a call to move *Beyond Myths and Heroes to Leading that Liberates* (as reflected in the title of her homonymous book). This position is arguably premature in its dismissal of the heroic, as is becoming evident by the impressive volume of scholarship amassing on heroism over the past decade. At the same time, the call to transform over-simplified and idealistic notions of leadership into a holistic process of learning that is rooted in everyday experience, is timely. It echoes the same call for the reconceptualisation of heroism as “banal” and *everyday heroism* made by Franco and Zimbardo (2006). This has served as a catalyst for an increasingly interdisciplinary body of work on heroism that is distinct from, and highly reflective of its place in relation to pre-modern notions of the phenomenon.

Allison (2015) notes the now widely acknowledged limitations of Thomas Carlyle’s (1841) “great man” theory of leadership. But Allison (2015, 5) is quick to caution:

> let’s not lose sight of Carlyle’s (1841) core premise that a single individual can exert a profoundly positive effect on one’s immediate family, set of friends, small community, or entire world. What Carlyle (1841) got wrong was his claim that only the gifts of great individuals can save our world.
Allison (2015, 2) proposes that research communities, and the world at large, are at a critical point of “initiation” into an age of heroism; an initiation which has been set back by a long-standing focus on the “dark side of human nature” despite the historical endurance of the phenomenon of heroism. Revisiting, and questioning, the notion of post-heroic leadership is thus warranted. This questioning centres not on the motivation behind this perspective to move towards an integrative and distributed model of leadership and wellbeing, but its dismissal of the heroic as no longer being a beneficial counterpart to leadership. As will be argued in Chapter 3, this appears to be based on a limited understanding of the inherent intricacy of heroism’s functions and healing properties evidenced in contemporary research, and the “power of myth” first expounded by Campbell (1988).

Emerging scholarly research on heroism is beginning to uncover critical connections between heroism and leadership, resulting in the integrative concept of heroic leadership. Allison (in conversation, July 31, 2015) defines heroic leadership as “leadership that takes into account all the processes implicated by the hero’s journey, and heroism science.” Allison and Goethals (2014, 170), have introduced the “Heroic Leadership Dynamic” to gain a deeper understanding of the universal profundity of heroism and hero stories through time. Allison and Goethals (2013) have outlined similarities and differences between heroism and leadership, noting that they are not mutually exclusive. The authors’ (Allison and Goethals 2014, 169) Dynamic is strategically framed around the notion of “heroic leadership” rather than as simply heroism” based on their focal premise expounded in previous works (Allison and Goethals 2011, 2013; Goethals and Allison 2012) that “although not all leaders are heroes, all heroes are leaders." This Dynamic encapsulates “various mechanisms underlying personal growth and developmental health” (Allison and Goethals 2014, 180), providing a solid basis for the integration of heroic leadership in wellbeing discussions. If “we are all developmentally equipped to pursue a lifelong hero-like journey,” as Allison and Goethals (2014, 175) suggest, then heeding – or denying – our very nature stands to have far-reaching consequences for our mental, emotional, physical and spiritual state of wellbeing.

**Leadership Embodiment**

Given the centrality of embodiment to the thesis, the exploration of heroic leadership is coloured by this lens and used to extend knowledge in both areas. A number of contemporary theorists are investigating the embodied dimensions of leadership (for examples see: Bathurst and Cain 2013; Burbank 2013; Illes 2015; Jankelson 2010;
Karssiens et al. 2014; Laszlo 2012; Ropo, Sauer, and Salovaara 2013). These have to date been sidelined in place of psychosocial evaluations of leadership and wellbeing, much like in the field of heroism. The emerging field of “Leadership Embodiment” (or “embodied leadership”) (Illes 2015; Yoon 2014), though in its early stages, is offering insights into the complexity of this important phenomenon, such as the importance of “lived story” to wellbeing (Burbank 2013, 1).

Ladkin (2013, 320) stresses that out of the “growing numbers of scholars [who] are studying the role embodiment plays in leadership, few attend to the most fundamental level at which bodies are involved: that of the felt experience of being within a leadership dynamic.” Reviewing Allison and Goethals’ (2014) Heroic Leadership Dynamic in tandem with Leadership Embodiment will illuminate a complex and robust appreciation of heroism in the 21st century – this is one of the core drivers and contributions of this thesis.

Allison and Goethals (2014, 170) assert that hero stories serve two core functions: “epistemic” and “energizing.” Basing claims of a post-heroic age of leadership on the notion of hero-as-leader as a “myth” (Lindsay 2013, 13) is to depreciate the “life-supporting” (Campbell 1972, 12) function of myth. The Heroic Leadership Dynamic is a science of story – but not one that pushes myth to the corner as a second order epistemology. It is a framework that preserves the integrity of hero stories, presenting a methodological baseline from which we can begin to dissect, review and expand on the mechanics of heroism, and story at large.

The epistemic function of heroic leadership is inextricably linked to the roots of heroism in myth and story. As discussed, Burbank (2013, 1) embraces the heart of the concept of leadership as lived story; this champions a “radically embodied presence” as “[t]he most direct way of developing the necessary flexibility and health for transformational leadership.” Burbank (2013, 1) notes: “[t]his kind of embodiment involves a fundamental reintegration of body, mind and spirit, involves developing evolutionary strengths that allow individual leaders to fully access their inner resources while connecting in the moment-to-moment, negotiated process of sustainable transformation.” Although Burbank (2013, 2) joins other authors in the association of the heroic with “individuation and competition,” her embodied reading of leadership highlights central convergences with the epistemic function of the embodied nature of heroic leadership and hero stories. Burbank (2013, 6) highlights the centrality of “embodied knowledge” in supporting “a healthier weaving of the web of stories and structures that shape a community’s response to inevitable
change.” This restores the unity of “physical experience” with “our emotional, spiritual and intellectual knowledge.” As she points out, “[o]ne radically embodied person can make a difference in a disembodied culture by simply being present, becoming a well-fueled, flexible force for transformation” (Burbank 2013, 4, 9).

An individual embodying heroic leadership is in a prime position to effect this authentic and radical transformation. The potentially profoundly transformative effect of the epistemic function of hero stories lies in their “transrational” qualities (Rohr 2011, cited in Allison and Goethals 2014, 170). Allison describes the hero’s journey as “a spiritual journey marked by encounters with transrational phenomena” (S.T. Allison, personal communication, November 7, 2014). Campbell (1988) defined a hero as “someone who has given his or her life to something bigger than oneself” – this transformative property and function of heroic action is captured by Joy’s (1979) conceptualisation of transformation as “a metaphysical event. Energy fields not only permeate the physical body, but extend for some distance beyond” (cited in Wade 1998, 714). This expansion of consciousness is a deeply regenerative event, felt across the physical and spiritual plane, illustrating a critical connection between heroic leadership and the transformative process. Goldman Schuyler (2013, 249) asks: “How Can Recognizing Wisdom Mind and Seeing the Moving Body as a Source of Knowledge Enhance the Study and Practice of Leadership?” The heroic body (Chapter 7) as a source of knowledge, and the innate transformative epistemic property of heroic leadership and the heroic wisdom mind, can contribute to the enterprise of embodied leadership and the enhancement of embodied knowledge.

Further, intelligence is as central to embodied leadership as it is to heroic leadership. George (2000, 1027) highlights the critical role of “emotional intelligence, the ability to understand and manage moods and emotions in the self and others” in embodied leadership. George (2000, 1046) adds that “leadership is an emotion-laden process, both from a leader and a follower perspective.” Among the benefits that George (2000, 1027) observes of emotional intelligence to effective leadership are “generating and maintaining enthusiasm, confidence, optimism, cooperation, and trust; encouraging flexibility in decision making and change; and establishing and maintaining a meaningful identity.” Similarly, developing emotional intelligence is a core function of hero stories and heroic leadership. Allison and Goethals (2014, 172) cite Bettelheim (1976) who “believed that children’s fairy tales are useful in helping people, especially children, understand emotional experience.” “Critical reflection” and self-awareness, commonly associated with emotional intelligence, is a “catalyst for sustainable leadership development” (Ralph 2015, 1)
and the development of “[s]omaesthetic [p]ractices” in embodied leadership (Hanold 2013, 89). The utility of hero stories in fostering emotional intelligence, and thereby heroic leadership, from a young age is immediate. This is achieved through the development of fundamental communication skills, a deep understanding of human relations, and establishing reflexive practices through the revelation of paradox and deep truths.

Finally, the energizing function of heroic leadership refers “to the ways that hero stories inspire us”; hero narratives achieve this function by “healing our psychic wounds, by inspiring us to action, and by promoting personal growth” (Allison and Goethals 2014, 170, 173). The energizing function of heroic leadership permeates all aspects of our interiority, transcending the mental and psychological arenas. It is a property innate to us all which we can learn to master until it becomes fully embodied and integrated into our corporeality, accentuating our “corporeal knowledge” (Merleau-Ponty 1964 and 2012, cited in Moya 2014, 1). The deeply inspirational property of heroism’s energizing function is central to embodied leadership. In her spiritual account of leadership Jankelson (2010, 12) asserts:

Leadership is not about what one knows or how much one knows; it is what one embodies and thereby expresses in oneself. To be inspired is to allow the breath, the idea, the meaning to penetrate into one’s body and then act. It is to take things into oneself, to question oneself and enable oneself, as substance, to be embodied. Inspiration moves one to action.

Though largely understudied, “self-leadership” is being increasingly recognised as a core propellant and instigator of behavioural change, and “a normative model of self-influence” (Manz 1986; Neck and Houghton 2006, 270; Neck and Manz 2010; Neck and Milliman 1994). The energizing property of heroism gives rise to the notion of heroic self-leadership as an imperative to “enhanced psychological, health and work outcomes” (Dolbier, Soderstrom, and Steinhardt 2001), as well as spiritual, economic, social and more. Positing heroism, heroic (self-)leadership and heroism science as embodied concepts will be core pre-occupations throughout this thesis.

Wellbeing

The reinstatement and recognition of the importance of heroism in the 21st century is significant in terms of redefining our concept of wellbeing in contemporary culture. The increasing prevalence of mental health disorders in developing countries has
been recognised as part of “public health’s 21st century mission” (Neugebauer 1999, 1309). Introducing the concept of the banality of heroism (Franco and Zimbardo 2006) escalates its centrality in everyday life, leading the way to a system in which everyone is a potential hero. A recent study conducted by Kinsella, Ritchie and Igou (2012) has highlighted “the importance of heroism in everyday life.” This study acknowledges the wide-reaching effects of the phenomenon across the spectrum of human experience: “[t]he term hero is universal and understood to provide important physical, psychological, and social benefits to people” (Kinsella, Ritchie, and Igou 2102). The development of transdisciplinary wellbeing frameworks fostering personal empowerment through everyday heroism and constructing a coherent and purposeful personal narrative, could therefore be central to the broader agenda of improving mental, physical and spiritual public health in the 21st century.

A growing body of research is illustrating the power of the hero’s journey model in its use as a counselling and pedagogical tool for self-transformation, the moral value of narrative and the heroic process of enquiry (Brown and Moffett 1999; Busick 1989; Champagnat, Delmas, and Augeraud 2010; Feinstein 1990; Goldstein 2005; Halstead 2000; Heinrich 1997; Holmes 2007; Hutchinson 2005; Krippner and Feinstein 2006; Lawson 2005; Randles 2013; Robbins 2005; Rozario 1997; Smith 2002; Zweben 1987). Brown and Moffett (1999, 104) expound the central role narrative and recalibrating heroism in the everyday could have on wellbeing in the classroom, education reform and reinvigorating learning in the face of failing models: “[u]ltimately, the ‘story’ we create in partnership with others is the narrative tapestry at the heart of the hero’s journey in education.” In one of the most poignant examples of the use of the hero’s journey as a wellbeing tool, Feinstein, Krippner and Granger’s (1988, 24) five-stage model “used in clinical, educational, and community settings,” demonstrates “the evolution of the individual’s mythology” in therapy and the potential “characteristics of the mythologies associated with higher levels of personality integration.” In light of the above, it is becoming increasingly evident how recentralising the role of the individual as narrator and heroic actor can be crucial to personal and community transformation.

The value of both heroism and leadership independently in advancing wellbeing at a holistic level is also becoming increasingly evident. The critical connection between leadership and wellbeing for individuals, organisations and communities has been well-documented (for examples see: Alimo-Metcalfe et al. 2008; McMurray et al. 2010; Munir et al. 2012; Purkiss and Rossi 2008). Allison and Goethals (2014, 169) point out that “[l]ifespan are longer and general health is better today than millennia
ago, but there seems little doubt that people today still seek out powerful hero narratives as a tonic for their anxieties and fears." A study conducted by Allison and Goethals (2014, 178) “showed a striking relationship between … respondents' needs and their choice of heroes. When they reported having a severe health problem, they chose heroes at that time who had overcome their specific malady.” This demonstrates a critical relationship between heroism, self-leadership and state of health.

Indeed, Kinsella, Ritchie and Igou (2015b, 5) hypothesised that “[g]iven the etymology of the word hero (meaning ‘protector’) … heroes would be the best protectors of psychological and physical well-being." The results of a series of consecutive studies clearly demonstrated the physical, social and psychological benefits of heroic action and perceptions of heroes as enhancers of wellbeing: “participants thought that heroes enhanced the lives of others, promoted morals, and protected individuals from threats,” and “rated heroes as more likely to fulfill a protecting function than either leaders or role models” (Kinsella, Ritchie, and Igou 2015b, 1). Notably, “thinking about a hero (relative to a leader or an acquaintance) during psychological threat fulfilled personal enhancement, moral modeling, and protection needs” (Kinsella, Ritchie, and Igou 2015b, 1). These results provide important preliminary evidence for the correlation between heroism and wellbeing.

This thesis takes a transdisciplinary approach to wellbeing informed by critical psychology. A critical psychological perspective aligns with the thesis in its address of the negative and deviant aspects of heroism (Chapters 1, 4 and 7 in particular). It adopts a broad and holistic view of the person, situating the environment as an important factor. In his definition of wellbeing, Koppe (2002) notes that “[t]he World Health Organisation defines health as: ‘a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity’. Critical psychologists Prilleltensky and Nelson (2002, 8), widely considered to be seminal authors in this area, propose that “[w]ell-being is achieved by the simultaneous and balanced satisfaction of personal, relational, and collective needs.” Prilleltensky and Nelson (2002) look at a holistic synergistic confluence of relationships between the person, group and society, and across the domains of politics, economics, culture, society, history and so forth. It is this interconnectedness that makes their model a sound fit with the transdisciplinary approach to heroism adopted by this thesis.

A second transdisciplinary paradigm which will be of central importance to the thesis in respect of wellbeing, is the biopsychosocial model developed in the latter part of
the 20th century by psychiatrist George Engel. Engel (1977) was critical of the dualistic and reductionist prevailing biomedical model in Western industrialised societies since the middle of the 20th century, which was founded on the Cartesian legacy of the separation of the body and mind as non-comparable dimensions of being (cited in Borrell-Carrió, Suchman, and Epstein 2004). In contrast to the ideology of his time, Engel (1977) maintained that “clinicians must attend simultaneously to the biological, psychological, and social dimensions of illness” in an attempt to create a model that would “reverse the dehumanization of medicine and disempowerment of patients” (cited in Borrell-Carrió, Suchman, and Epstein 2004, 576). In Engel’s (1977) “dynamic, interactional” model both the psychological and physical spheres of experience are mutually influential (cited in Borrell-Carrió, Suchman, and Epstein 2004, 581). Borrell-Carrió, Suchman and Epstein (2004, 581) argue that “[i]t is perhaps the transformation of the way illness, suffering, and healing are viewed that may be Engel’s most durable contribution.” The widespread psychological, social and physical impacts of heroism asserted by Kinsella (2012) suggest the requirement of this type of framework that is canvassed across multiple levels of heroic wellbeing and heroic leadership (Chapters 3, 4 and 6). The biopsychosocial model can be used to ascertain the properties of heroic wellbeing across a number of levels, and the factors that may influence the development of everyday heroism.

Borrell-Carrió, Suchman and Epstein (2004, 576) call for a revitalisation of Engel’s (1977) biospsychosocial model as a philosophical and clinical care tool by proposing certain refinements; these include the tempering of “models of circular causality ... by linear approximations,” “self-awareness,” centralising “subjective experience,” “educating the emotions,” and “using informed intuition.” By cross-analysing such transdisciplinary models of personal transformation and wellbeing, this thesis aims to contribute to this epistemological legacy. This thesis proposes the development of a consilient biopsychosocial model of heroism that is iterative and open, and centralises the potential for regeneration of every individual, regardless of their existing mental or physical condition.

The following question is considered in the development of this consilient model: what is the relationship between individual and collective transformation of consciousness and heroism, and how can the fostering of heroic behaviour on both a micro and macro level assist in this process? This thesis argues that a comprehensive and astute knowledge-building of the architecture and mechanisms
of heroism will be integral to the broader agenda of restoring balance across all dimensions of wellbeing.

Here, it is timely to revisit the intersection between embodiment, heroism and wellbeing. Being primed for embodied heroic leadership suggests that the heroic mindset is not simply mental in nature – it is a heroic “embodied mind or minded body” (Gallagher and Zahavi 2008, 63). Researchers such as Perlmutter (2013) and Coyle (2011, 3) advocate the centrality of holistic therapies in improving brain health and the physical body as “portal and path to wholeness,” resulting in the “simultaneous transformation of one’s consciousness as well as one’s physical and emotional being.” How can a transdisciplinary model of heroic leadership contribute to this path to wholeness? In his analysis of the “psychobiology of Jung’s constructive method,” Rossi (1997, 70) emphasises the central role Campbell’s (1949) hero’s journey model stands to play in the development of integrative therapies:

Joseph Campbell’s myth of the hero together with the creative cycle of discovery in the arts and sciences provide a starting point for this exploration, which can then be amplified by recent neuroscience research pointing to a new view of mind-body communication and healing. Along the way we will gather new insights about the nature-nurture controversy and the so-called “Cartesian gap” between mind and body.

The hero’s journey is a metaphor for the regeneration cycle, or the innate, and largely untapped, capacity of every organism to heal itself. The biological process of regeneration (whether it be cellular, genetic or other) captures the scientific equivalent of the concept of heroism in its transformative function, and the idea of a journey that alters the individual profoundly at the very cellular level. The energizing function of embodied heroic leadership heals the Cartesian split and reinstates the centrality of the mind-body continuum, linking transformative heroic action to mental, emotional, physical and spiritual wellbeing. As Burbank (2013, 7) states, “anyone can develop transformative leadership qualities. It is a practical result of radical embodiment.” The self-healing properties of heroic self-leadership could be testament to this radical embodiment. Arriving at a new understanding of the self as heroic leader in dialogue with our body could result in rewriting more creative and advanced stories of wellbeing.

The metaphor of the mythical superhero possessing unusual physical strength and resilience is now finding an unlikely home in “hard” science. In 2009 the gene
“KIFAP3 (Kinesin-associated protein 3)” that can prolong the lifespan of motor neurone disease sufferers was identified by British scientists. Significantly, this has been dubbed a hero gene. Chalabi (cited in Daily Mail 2009, 1) emphasises the importance of such findings that are geared towards exploring the less common scientific approach of identifying “survival genes ... [T]reatments need to be aimed at improving survival, not reducing risk.” Similarly, Dickie (cited in Daily Mail 2009, 1) notes: “[J]ust as there are genetic ‘villains’ that can cause or predispose people to disease, so there are undoubtedly ‘hero’ genes that help delay the onset of the disease or slow its progression.” “The Resilience Project” is a groundbreaking global study on the “hunt” for “genetic heroes” who have demonstrated unusual immunity to debilitating diseases and “genetic mutations” (Friend 2014; Giller 2014). It is an innovative approach by studying health to prevent disease.

These trends in the scientific community parallel the broader trends in psychosocial research and initiatives to combat pressing issues with prosocial and philanthropic heroism based approaches. Nascent heroism science research (Kafashan et al. 2017; Preston 2017; Rusch, Leunissen, and van Vugt 2015; Smirnov et al. 2007) indicates the potentially profound evolutionary, intergenerational, cross-cultural and biomedical impacts of a rigorous biopsychosocial analysis of heroism for human wellbeing. Emerging scientific findings, in conjunction with other multiple disciplinary investigations of the phenomenon, could contribute to a range of fields, including leadership and wellbeing, paving the road for opportunities in diverse and collaborative future research, as this thesis sets out to show.

Playful Participation and New Media Studies

As foreshadowed, one of the everyday contexts in which the application of heroism theories and their transdisciplinary value is assessed in this thesis, is the use of devices, technology and gaming. Playful engagement with technologies, people and our surroundings is an increasingly ubiquitous mode of interaction in everyday spaces. Play, creativity and gaming are “buzzwords” of contemporary culture defining our personal and social relationships, and our cultural identities. The significance of hero archetypes in popular culture, gaming and creative production in the 21st century has been discussed by a number of theorists (for examples see: Ardill 2008; Buchanan-Oliver and Seo 2012; Klisanin 2012; McLoone 2010; Viega 2012). The heroic use of technologies specifically, and representations of everyday heroic action in online, social and digital spaces is an emerging and innovative area of research (Klisanin 2015, 2017).
Franco and Zimbardo (2006, 32) have theorised four core features of everyday heroism in a 21st century world: the presence of “some type of quest”; “actual or anticipated sacrifice or risk,” which can be discretely “physical” or “social”; a “passive or active” preservation of an ideal; and, “a sudden, one time act, or something that persists over a longer period of time.” The founding premise behind the idea of the heroic imagination first theorised by Franco and Zimbardo (2006) is that:

heroism is much easier to engage in if the individual has already considered some of the situations that might require heroic action, if the actor has anticipated what some of the barriers to that action might be, and if personal consequences have also been thought through and transcended at least to some degree. In this sense, developing one’s heroic imagination primes the individual to take action if and when the time comes. (Blau, Franco, and Zimbardo 2009, 3).

The shaping and narration of the heroic imagination specifically in digital spaces is only just beginning to be studied. Blau, Franco and Zimbardo (2009, 4) speculate that the digital era and “our media-driven culture … presents new situations where evil can thrive, and yet also creates opportunities for individual and collective heroic action that were never before imaginable.” Klisanin (2017) concurs that this transition is producing a heroism that is “evolving, becoming more digital, complex, interdependent, collaborative, communal, and planetary” (cited in Allison, Goethals, and Kramer, 12).

McGonigal (2011) champions games as creative spaces that “make us better” and urge us to go on our own life-altering “epic journey,” aligning with the quest aspect of Franco and Zimbardo’s (2006) heroic activity and the heroic imagination. McGonigal (2010) supports play as a vital means to solve real-world problems and creative problem-solving – this denotes a crucial intersection between heroism science as an interdisciplinary study of real-world cases and play in gaming, and all its forms. Parkhurst (1999, 18) defines creativity as “[t]he ability or quality displayed when solving hitherto unsolved problems, when developing novel solutions to problems others have solved differently, or when developing original and novel (at least to the originator) products.” The creativity, self-confidence and resilience instilled by games inspires us to “collaborate and corroborate”; in play mode we are the “best version of ourselves” on an epic story and mission (McGonigal 2010). According to McGonigal (2010), through gameplay “we are actually changing what
we are capable of as human beings – we are evolving to be a more collaborative and hearty species”; she argues that the history of gaming is bound to our successful evolution as a species, alleviating suffering and resolving challenging and topical problems.

McGonigal (2010) proposes four core benefits of gameplay: “urgent optimism” to tackle a problem immediately with assertiveness; a sense of being intimately connected to a “social fabric,” building “bonds and trust and cooperation”; “blissful productivity”; and, “epic meaning” found in “human, planetary scale stories.” These “superpowers” result in the definition of gamers as “super-empowered hopeful individuals … who believe they are individually capable of changing the world.” McGonigal (2010) boldly asks: “are we on the threshold of our own epic game” and, by implication, a novel hero’s journey as a human species? Finding out how to translate this super-charged intrinsic playful motivation into real-world contexts is the driver of McGonigal’s (2010) research. Her “world saving” game designs are an innovative and interactive means of instilling the heroic imagination and preparedness in everyday individuals in the face of issues such as the oil crisis and global extinction, resulting in a “transformative experience” (McGonigal 2010). Heroic play is thus a form of creative and planetary-centred problem-solving.

The ubiquity and infiltration of these technologies in our everyday lives is giving rise to new social, digital and other forms of expression of human activities, as well as archetypes. One distinct such novel expression is the emergence of cyberheroism as the most “dedicated” form of digital altruism. This is:

the first incarnation of a new archetype: the cyberhero. Embodying a transpersonal sense of identity, as ideal forms, the cyberhero represents individuals motivated to act on behalf of other people, animals, and the environment using the Internet and digital technologies in the peaceful service of achieving humanity’s highest ideals and aspirations, e.g., world peace, social justice, environmental protection, and planetary stewardship. (Klisanin 2012, 1).

According to Klisanin (2012, 18) “the cyberhero is a viable embodied archetype poised to expand the heroic imagination into the new millennium.”

In her exploration of the emergent phenomenon of collaborative heroism through three social media initiative case studies, Klisanin (2015, 1) argues that “just as interactive technologies and social media have profoundly impacted the social,
economic, and political spheres, among others, so too are they impacting the mythic
and moral spheres – giving rise to a form of heroism described as collaborative.”
These are “digital altruists” who take their creative and interactive use of
technologies one step further (Klisanin 2015, 3). The core distinction between digital
altruism and cyberheroism, according to Klisanin (2015), is that digital altruism
involves concern for another but does not require prolonged dedication, or repeated
action. Collaborative heroism involves accomplishing “noble goals” that have
worldwide consensus. This is defined in terms of collaborative actions that aim to
accomplish the Articles of the United Nations, Universal Declaration of Human
Rights and/or Earth Charter (Klisanin 2015). It requires long-term commitment and
involves the sum total of collective actions taking place in the matrix of the cloud.
Klisanin (2015, 14) concludes that the “data cloud has become a situational factor in
our lives submersing individuals within an interactive matrix where clear dividing
lines between action in the ‘cyber’ world and the ‘real’ world disappear.” This
nascent research supports the rise of a “collaborative form [of heroism] that relies
upon the actions of millions of individuals. Those actions can be set in motion by the
efforts [of] an individual … a small group of individual[s] …or through collective
decision-making” (Klisanin 2015, 13).

A creative mindset is integral to identity formation; practicing a future-oriented
approach by heroically imagining “alternative future scenarios that might play out”
(Franco and Zimbardo 2006, 34) of our “possible selves” (Markus and Nurius 1986)
is an important aspect of heroic engagement with modern forms of play. Markus and
Nurius (1986, 954) first theorised the notion of possible selves as a representation
of “individuals’ ideas of what they might become, what they would like to become,
and what they are afraid of becoming, and thus provide a conceptual link between
cognition and motivation.” Parkhurst (1999, 14) notes the position of the
“widespread nature of creative abilities” – not limited to traditional creative pursuits
but as a mindset – and its concordance with wellbeing. In his exploration of German
critical theorist and sociologist Jürgen Habermas’ concept of creative
communication and practice, Crouch (2007, 107) states that “[i]t is the notion of the
‘critical’ and its location in a social, dialogic space that … is essential in the
examination of the communicative act.” He notes that Habermas’ idea of
communication implies mindfulness; “one is aware of one’s active role in the
construction of meaning” (Crouch 2007, 108). This thesis supports that the inclusion
of the heroic in this vital form of both intrapersonal and interpersonal mindful
creative communication and identity formation, has novel implications for the role of contemporary gaming practices and playful participation overall (Chapter 5).

**Career Identity**

Career is a second area in which the lived experience of heroism is explored in this thesis (Chapter 6). This domain intersects with creativity and imagination (Chapters 2 and 5), as well as biopsychosocial and holistic wellbeing (Chapters 3 and 4), as characteristics of the heroic discussed to this point. Contemporary scholars are beginning to assess modern career experiences as heroic experiences. Career identity is emerging as a critical and under-addressed aspect of contemporary work, largely because its development is increasingly challenging. The reason for this lies in heightened precarity across the labour market, which has resulted in more workers becoming responsible for their individual career development and management across multiple concurrent roles (Lippmann 2008). In their overview of “career development as a context for heroism,” Dik, Shimizu and O’Connor (2017, 319, 331) “explore the linkages between career development, a sense of calling, and heroism.” They conclude that “perhaps anyone can come to express heroic traits and engage in heroic acts within their chosen profession, even if quietly, in largely unsung ways” (Dik, Shimizu, and O’Connor 2017, 334).

In her investigation of pre-service student-teacher training and placements, Goldstein (2005) found that applying the hero’s journey metaphor was beneficial to participants, despite their resistance to identifying as heroes personally. Robledo and Batle (2015, 1) apply the hero’s journey model to participant experiences in the field of tourism indicating its transformative value: “[e]ight factors were identified: personal situation, being away doing unfamiliar activities, interaction with people, live the moment, difficulty, setting, reflection and integration.” The isolation and difficulty that females experience in the forestry industry in Norway is a further example. Follo (2002, 293) argues that this professional context “has some characteristics which are best captured in the metaphor of the hero’s journey: a travel in foreign country, a road of trials, some helpers, and a return as a stronger, wiser and more self-confident person.”

A quantitative study of engineering and science professionals highlighted “the importance of understanding the deep-seated archetypal values that seem to explain the individuals’ career choices and decisions, and how these values differ regarding these choices and decisions” (Du Toit and Coetzee 2012, 1). Using Pearson’s (1991) analysis of the archetypal hero’s journey “framework for insight
into the journey of long-term personal development within the careers context," Du Toit and Coetzee (2012, 3) support the value of this approach as a beneficial career counselling tool in the universal themes and challenges addressed. They conclude that “the values and qualities underlying the current active archetypal life themes, act as psychological forces that give impetus to the expression of the career self-concepts associated with the participants’ dominant career orientations” (Du Toit and Coetzee 2012, 13).

Specific to creative practice and education, the hero’s journey is being viewed as a discrete form of socialisation in professional development. Randles (2012) applies the hero’s journey model to music teacher socialisation. He contends:

The process of ritual, following the general theme of separation–initiation–return, where the protagonist leaves the ordinary world to enter the special world where adventure happens, followed by a return to the ordinary world in an altered – changed – state, is proposed to be akin to the struggles of the apprentice teacher. (Randles 2012, 11).

Randles (2012, 18-19) concludes that “[b]y viewing any life as a hero's journey, teachers and teacher educators can more meaningfully and heroically affect the world around them." The value of the hero’s journey and its application to career identity and development lies in the recognition of the career journey as a lifelong fluid process of growth and transformation. In their analysis of the “Skills for Tertiary Education Preparatory Studies (STEPS) pre-undergraduate bridging program at Central Queensland University” as a hero’s archetypal journey, Simpson and Coombes (2001, 164) argue that “an understanding of both the twelve stages of the Quest and the six main archetypes present in modern Western society," assists adult students “in the development of self-knowledge and self-awareness.”

The value of the hero’s journey metaphor for career development is not limited to professional practice but extends to volunteering. In their investigation of a cohort of New Zealand volunteer placements as development workers overseas, Hudson and Inkson (2006, 304) found that they displayed some of the core properties of the hero’s journey. These included “motivations of adventure and altruism, descriptions of trials and tribulations during the project, feelings of success, new skill and personal transformations in identity and values.” Further, in an investigation of voluntary search and rescue experiences drawing on a three-and-a-half-year ethnographic project, Lois (1999) reviews the importance of heroism and the hero’s journey. This is considered to be a key tool for the reconciliation of individual
interests with group interests and a beneficial socialisation process; one that “may hold great power in American culture” (Lois 1999, 134).

This thesis seeks to demonstrate the transdisciplinary value of the field of career studies as an aspect that is inextricably intertwined with all facets of our lives. This reveals the gravity of career decision-making for individuals, families and societies alike. The focus on creative, versus other types of careers in this thesis is strategic, and especially useful as a case study of the applied benefits of heroic leadership due to: (a) the link between the creative process (common to any activity) and the hero’s journey, with a deep connection in time stemming back to the mythical origins of creative design, creation myths, fertility and the evolutionary journey (Rossi 1997); and, (b) the widely recognised transience and harsh realities of employability of creative artists (Bennett 2012; Reid, Bennett, and Petocz 2016). Finding out what makes creative practitioners successful and employable thus stands to be of particular interest to both employability and heroism science researchers.

**Sustainable Development**

Ultimately, this thesis seeks to explore the value of heroism as a sustainable form of action and wellbeing (Chapter 3). While the relationships between the hero’s journey and wellbeing, as well as leadership and wellbeing have been extensively recorded, as discussed, the synergies between sustainability and these areas are only just beginning to be revealed. The emerging field of “sustainable leadership” is at the forefront of championing a bold and inclusive notion of global participatory leadership, with all of us “co-creating a sustainable future” (Ferdig 2007). The contribution of heroic leadership and heroic wellbeing to the promotion of sustainable leadership, and a transdisciplinary understanding of sustainability overall, could be crucial – Lin (2011, 1) suggests that what is likely “most important to the sustainability of human beings is virtues” including “altruism, honesty” and “heroism [emphasis added].” Likewise, Caselles (2012, 1, 16) proposes Salzman’s (2008, 326) “constructive heroism” as a potential solution for the promotion of improved human ethics and a sustainable “just globalization.” This emerging research is indicative of the links between leadership, heroism, wellbeing and sustainability, and the fruitful collaborative space that exists between them.

The transrational property of heroic leadership is a strength that will allow individuals and communities to meet one of the core challenges of sustainability outlined by Orr (2002), of a holistic education and awareness that is connected to
higher values and consciousness. Orr (2002, 1459) notes Schumacher’s (1977) emphasis that:

human problems, such as those posed by the transition to sustainability, are not solvable by rational means alone. These are what he called “divergent” problems formed out of the tensions between competing perspectives that cannot be solved but can be transcended. In contrast to “convergent” problems that can be solved by logic and method, divergent problems can be resolved only by higher methods of wisdom, love, compassion, understanding, and empathy.

This cements heroic leadership as a central tool for addressing divergent human problems and the challenges of sustainability. Allison and Goethals (2014, 170) support the function of heroic narratives as “far more than simple scripts prescribing prosocial action.” The authors (Allison and Goethals 2014, 170) state that “effective hero stories feature an abundance of transrational phenomena … [which] reveal truths and life patterns that our limited minds have trouble understanding using our best logic or rational thought.” This epistemically grounded and intrinsic transrational function of heroic leadership allows us to move beyond its competitive, self-serving and Newtonian ascriptions (McLeans and Wells 2010). It reveals itself as a unique exemplar of embodied transformative leadership, and a deeply personal, multisensorial and transrational experience.

The energizing function of heroic leadership is deeply related to Orr’s (2002) next challenge of sustainability. This involves revising and stabilising the capitalist agenda to “protect the Earth’s production of real wealth, and develop equity among nations,” as proposed by Odum and Odum (2001, 133). The unique capacity of heroic leadership to contribute to this new eco-friendly capitalist schema is reflected in Salzman’s (2008, 326) “constructive heroism” as a tool for promoting a reformed globalised society. This stabilising capacity of the energizing property of heroic self-leadership is further indicated by Korten (2013). Korten (2013, 4-5) calls for an extension of the personal notion of the “hero’s journey of self-discovery” to “collective self-discovery” of heroic action in the face of the pressing economic, social and environmental crises plaguing our planet and species. This is an embodied scientific story of a global scale; “a story of many trillions of individual choice-making living organisms cooperating as an intelligent whole to optimize the capture, organization, and sharing of Earth’s resources (Korten 2013, 4). It is an embodied reading of the planet, with humans and other species as its core agents
and mutually interacting organisms within the context of a broader hero’s journey, revealing a co-“narrative of human evolution” (Landau 1984) between us and our enveloping world.

This energized, ecologically minded and responsible global citizenry is primed to co-author a sustainable narrative of human evolution. The potential for “spiritual renewal” that is inextricably linked to both the energizing and epistemic functions of heroic leadership, and its inherent transrational properties, positions its capacity to meet “the … most difficult challenge of all.” This involves the “transition to sustainability” which “will require learning how to recognize and resolve divergent problems” or a “higher level of spiritual awareness” (Orr 2002, 1459).

Conclusion

In summary, this literature review foregrounds the central role the history of the tensions between disciplines will play in the discussion on heroism in the chapters that follow. Increasing evidence of the intersections between story and science – and other emerging fields – will play a significant part in the transdisciplinary study of heroism. As platforms for wellbeing they are ideal points of departure from which to investigate the lived and embodied experience of heroism in applied contexts, in contemporary academia, the workforce, new media and diverse community settings. Exploring how the body intersects with culture, society and psychology is set to illuminate the layers of heroism to a greater extent than these would in isolation. Coupled with a close reading of the mechanics of heroic leadership, the amalgamation of these key disciplines will help us build heroic communities as exemplars of sustainable communities.
Chapter 1: Heroism Science: Frameworks for an Emerging Field

Attribution

OE developed the concept, reviewed the literature, wrote the manuscript, and developed the preliminary taxonomy and definition of heroism science. SA contributed discussion on the contextualisation of heroism in the history of psychology, and the development of the preliminary definition of heroism science by identifying the subject and process of enquiry of the field. Both authors critically reviewed and approved the final version.

OE: 90%

I certify that the candidate's personal share in the investigation stated above is true and correct.

..................................................

Ingrid Richardson (Principal Supervisor)
Article

Heroism Science: Frameworks for an Emerging Field

Olivia Efthimiou¹ and Scott T. Allison²

Abstract
This article outlines the conceptual framework for a new science focused on heroism using multiple perspectives to generate a science that is explicitly in service to humanity. The role of heroism as a case study for deviant interdisciplinarity, heroism science as storytelling and story revising, and its impacts for research and communities are considered. The primary concern of the deviant agenda of heroism science is the unity of knowledge and the testability of narrative-driven scientific inquiry. In this agenda, science as “episteme” and heroism are unified in their core epistemic function. Heroism science is posited as a prime candidate for promoting science as enabler for improving the world, based on Hefner’s concept of embodied science, and a nonlinear, open, and participatory model of science. Contemporary heroism research trends across the disciplines are mapped in a preliminary taxonomy of peak, emerging, and low subfields of research activity. Heroism science is defined as a nascent multiple disciplinary field which seeks to reconceptualize heroism and its correlates through a close examination of the origins, types, and processes of these interrelated phenomena.

Keywords
interdisciplinarity, embodied science, story, inquiry, two cultures, hero's journey

¹Murdoch University, Perth, Western Australia, Australia
²University of Richmond, Richmond, VA, USA

Corresponding Author:
Olivia Efthimiou, School of Arts, Murdoch University, South Street Campus, Perth, Western Australia 6150, Australia.
Email: oliviaefi@gmail.com
Introduction

Increased recognition of the crucial role of interdisciplinarity to education and research together with the flurry of research on heroism over the past decade, have resulted in a critical interdisciplinary moment—the birth of heroism science. The purpose of this article is to (a) contextualize the nascent field of heroism science in broader shifts within and outside psychology, and the philosophy of science; (b) consider the role of heroism science as a case study for interdisciplinary research, and a means of developing innovative frameworks for addressing real-world problems; (c) introduce a preliminary taxonomy of emerging research trends in the study of heroism; and (d) offer a working definition of heroism science and its modes of inquiry.

Heroism Science as Deviant Interdisciplinarity

Campbell’s (1949) comparative work on hero mythologies marked the first critical interdisciplinary moment in the study of heroism, followed closely by its first major uptake outside the humanities by psychology. In this period, the study of heroism was largely applied to the humanistic psychological fields, such as analytical and transpersonal psychology, alongside popular culture and modern humanities fields more broadly. Chemero (2013, p. 145) observes that “there have been two ways to do psychology” since its inception; a scientific focused culture on the one hand, and a humanistic one on the other. This period also marked the beginning of the use of the hero’s journey (Campbell, 1949) as a tool for promoting holistic well-being in everyday settings, counselling, and pedagogy, complementing the rise of innovative fields such as narrative therapy.

After World War II, the humanistic approach to understanding human nature grew out of a dissatisfaction with psychoanalytic and behavioral orientations that portrayed humans as either self-destructive entities or as slaves to environmental forces beyond their control. Maslow (1948) and Rogers (1951), in particular, championed the idea that people are driven to fulfil their greatest potentialities and that these self-actualizations include the heroic ideal of devotion to service to the world. Frankl (1959) emphasized the importance of imbuing the world as a mechanism for enhancing psychological well-being. By the 1990s, positive psychologists were carrying the mantle of scientifically studying and promoting the most life-affirming aspects of humanity (Peterson & Seligman, 2004). The dedicated and consolidated study of heroism within psychology, however, was still curiously neglected.

Franco and Zimbardo’s (2006) “The Banality of Heroism” catapulted the study of heroism into the realm of scientific inquiry for the first time in academic
history and cemented its observation in everyday contexts. The article signified the entrance of heroism in mainstream and scientific psychology (e.g., cognitive, developmental, clinical, personality), the social sciences and, finally, the sciences. We are now witnessing attempts to deconstruct and illuminate the complexities of the phenomenon via the use of psychological testing and measurement methods and its rigorous scientific observation. These are resulting in the development of various interconnected but distinct notions of heroism, such as heroic leadership (Allison & Goethals, 2013), everyday heroism (Keczer, File, Orosz, & Zimbardo, 2016), collaborative heroism (Klisanin, 2015, 2017), and embodied heroism (Efthimiou, 2017; Gray, 2010). Recently, this radical shift has gone a step further leaping into the realm of hard science—the scientific initiative The Resilience Project is searching for “genetic heroes,” mapping the genetic structure of individuals who display unusual resilience to debilitating diseases (Friend & Schadt, 2014; Giller, 2014).

The history of the study of heroism reflects the journey across the cultures of knowledge—from the humanities, to the middle culture of psychology, and finally its infancy into the sciences. Campbell (1990, p. 242) anticipated the central role of hero mythology in bridging all the disciplines, noting that “it is the only thing that could unite science and humanity [as it] did in ancient times.” We may thus conceptualize heroism as a naturally occurring interdisciplinary phenomenon, leading into a discussion of heroism as a case study for the value of interdisciplinary research agendas.

The emergence of the field of heroism science, and the vast scope of disciplines that have historically been involved in the enterprise of heroic knowledge, instantly lends the function of heroism and its inherent interdisciplinarity to a questioning of the foundations of intellectual inquiry. Fuller (2012, p. 50) unpacks the notion of a distinct type of interdisciplinary engagement, “deviant interdisciplinarity”:

“Deviant interdisciplinarity” refers to a set of interdisciplinary projects that aim to recover a lost sense of intellectual unity [italics added], typically by advancing a heterodox sense of intellectual history that questions the soundness of our normal understanding of how the disciplines have come to be as they are.

Understanding the history of the tensions between the “two cultures” of the sciences and humanities (Snow, 1959), and critiques and resistance toward interdisciplinarity, is set to be instrumental to the research enterprise of heroism science. The ultimate contribution of heroism science as a paradigm of deviant interdisciplinarity is the recovery of the lost sense of unity between myth, story, and science, by challenging the soundness of the assumptions of our intellectual history and disciplinary barriers.
**Heroism Science as Storytelling and Story Revising**

The deviant interdisciplinary nature of heroism extends to the objectives and practice of “science.” More important, we must consider why a science of heroism? Interdisciplinary milestones have been instrumental in advancing the view that “elevating science above other forms of knowledge is untenable on a foundational level” (Cohen, 2001, p. 10). Krohn (2012) argues that integrating humanistic and scientific concerns in a novel form of inquiry is imperative to interdisciplinary research.

This critical reevaluation of the accepted understanding of scientific law bears direct relevance to heroism science—the incorporation of the term *science* may well be contested by disciplines within the field understood to be “nonscientific.” However, this question must provide impetus for a larger underlying issue—the problem does not lie with science per se, but our *preconceptions* of the term. The Merriam-Webster dictionary defines science as “the state of knowing: knowledge as distinguished from ignorance or misunderstanding.” The Ancient (and Modern) Greek translation “episteme” also signifies the pursuit of knowledge, and in its essence *to know*, or the pursuit of rigorous intellectual and experiential inquiry.

Under an interdisciplinary agenda for heroism, the unity of knowledge becomes a central preoccupation. The meaning and function of “science” in “heroism science” is therefore understood as inclusive and all-encompassing of *all* forms and vestiges of knowledge. By the same token, it is envisioned to be a flexible term—it is understandable that a heroism researcher in philosophy, for example, may not wish to or feel comfortable with identifying as a “heroism science researcher.” But if we are to undertake the use of the term *science* in its original meaning, that is, of the pursuit of knowledge, then all heroism researchers are in effect pursuers of heroic knowledge, and in essence, heroism scientists.

Grobstein (2005) proposes story as an avenue for resolving the division between scientific and humanistic inquiry. He highlights the importance of recognizing how many different stories of science exist, as well as their sometimes unfavorable reception. This is exemplified in Grobstein’s (2005) model of “*science as story telling and story revising.*” There is a crucial link between science and heroism in story—the unique roots of heroism in mythology and narrative, and the hero’s journey function as a universal vehicle for storytelling, find an immediate connection with the epistemic roots of science. A core function of hero stories is the *epistemic*; this “refers to the knowledge and wisdom that hero stories impart to us” by revealing “deep truths” and “paradox” (Allison & Goethals, 2014, pp. 170, 171). Kelly (2006, p. 8) states that “[t]he tools for managing paradox are still undeveloped” as
he speculates on the future of scientific inquiry—the innate properties of paradox and ambiguity in hero stories, strongly suggest that a science of heroism is in a prime position to serve as a science of paradox, healing the split between the two cultures. It is the return of episteme in her fullest sense.

Grobstein (2005) argues for revisiting the place of science in human culture, with narrative and well-being taking center stage in this emerging epistemology. This story-based scientific method is an open model for the observation and testability of phenomena. It is a flexible process of nonlinear scientific inquiry which encompasses a starting point with a “summary of observations,” the venturing out and collection of “new observations,” and a “return” or resummation based on the new experiences amassed (Grobstein, 2005, p. 6); this aligns well with the Campbell (1949) hero’s journey circular model. This new scientific sensibility is conscious of itself as a dynamic open-ended process and a “deeply social activity” (Grobstein, 2005, p. 10)—one that employs humility, accountability, and a sense of being embedded in the overarching story of human beings in universal creation and evolution.

A story-driven approach to a science of heroism carries a fundamental preoccupation and engagement with the process of knowledge-making and knowledge acquisition—the epistemic function of story is at the heart of science, as story facilitates learning no matter what its form. Scientific inquiry and hero stories are inexorably joined in their inherent epistemic function, property, and agenda. Both science and the hero’s journey are at their very core broad “form[s] of exploration” (Grobstein, 2005, p. 12). A science of heroism must engage with a critical reassessment of science itself and generate a new mode of knowledge that integrates the humanistic and scientific ideals.

**An Embodied Science of Heroism: Heroism as Enabler for Improving the World**

What does a science of heroism look like and what are its aims? Heroism science is a prime candidate for promoting “science as enabler for improving the world (SEIW)”; Hefner (2010) maps the contours of a science based on Frances Bacon’s (as cited in Ravetz, 1971, p. 436) concept of a “philanthropic science” in the pursuit of the improvement of the human condition, in contrast to a disembodied, impersonal idea of science, that stands removed from human affairs and other fields of knowledge. In the context of an “embodied science” (Hefner, 2010) of heroism, we may thus speak of heroism science as enabler for improving the world—this is a concrete framework for science as storytelling, revising, and ultimately, sharing. The emerging field’s agenda
may be outlined across science as enabler for improving the world’s five-part framework:

1. **Building a heroic world.** Heroism science is an inquiry into creative and expansive possibilities for individuals, communities, and the ecosphere. The notion of “constructing” heroes in everyday communities is the foundation of projects such as The Hero Construction Company (Langdon, 2013)—this is the idea of building heroes and heroic communities that care for others, our society, and the ecosphere, in action.

2. **A heroic technoscience.** The emergence of the field can be viewed as a means of arriving at a more evolved symbiotic relationship with “technoscience” (Haraway, 1997). The ultimate function of heroism science as a “critical science” (Hefner, 2010) becomes the advancement of the human species partnered with the mindful and ethical use of technologies. Initiatives such as the Cyberhero League demonstrate how “collaborative heroism” can shape a more ethical and responsible world, and embrace the conscientious use of technologies such as new media for the benefit of humanity (Klisanin, 2015).

3. **Diversity in heroic action and ethics.** Heroism science is grounded in the centrality of “human action and ethics” (Hefner, 2010, p. 251). This agenda must be met with an attitude of tolerance, in recognition of the ambiguity of both heroic and human action, and by implication its ethical nature, in the changing face of 21st-century human societies and new contexts of engagement with the world and each other. Balsamo and Mitcham (2012) highlight the importance of ethical considerations in interdisciplinary research, in particular. As the field moves further into the sciences, interdisciplinary collaborations flourish, and technologies are increasingly used to observe, measure and promote heroism, the necessity for ethical considerations and even policies (as in the case of genomic testing) to be put in place becomes more vital. The ultimate goal of an embodied science of heroism from an ethical perspective must be the promotion of a planetary consciousness, as advocated by Klisanin (2003), always based on a systematic, critical reflection of its intents and impacts.

4. **The transformative possibilities of the embodied heroic consciousness.** Heroism science reveals the transformative possibilities of the “embodied heroic consciousness” (Efthimiou, 2017, p. 148). Campbell (1988) defined a hero as “someone who has given his or her life to something bigger than oneself”—this transformative property reflects the necessary concordance of heroism science with the “big questions” of the meaning of being human and the origins of the universe. The
notion of possibility is tied to spirituality (Hefner, 2010); this aligns with the core epistemic function of hero stories in their “transrational” qualities (Allison & Goethals, 2014; Rohr, 2011), as well as the source of hero myths in creation myths and the world’s religious and spiritual traditions. Much of the integrative psychological literature on the hero’s journey spurred forth from Campbell’s (1949) model addresses this dimension and its interrelationship with other facets of human experience. This transformative property of embodied heroism science permits the integration of “nonscientific” disciplines such as philosophy and religion, making their contribution in the context of an integrative framework for heroism imperative, and placing heroism science in a prime position for “recentering religion-and-science” (Hefner, 2010).

5. Recovering the mythopoeic heroic imagination. Heroism science is inextricably linked with the recovery of myth—the centrality of myth at the heart of the origins of heroism necessitates revisiting its importance in 21st-century societies, and its interrelationship with science. Heroism science holds the possibility of realizing Paul Ricoeur’s (as cited in Hefner, 2010, p. 262) concept of “retrieving the power of myth” to achieve “a critical and reflective second naïveté.” The retrieval and centralization of the “heroic imagination” (Franco & Zimbardo, 2006, p. 31) in the everyday stands to be integral to this vision. This final clause of heroism science as embodied science realizes its function as deviant interdisciplinarity, fulfilling its agenda of “advancing a heterodox sense of intellectual history” (Fuller, 2012, p. 50), and providing evidence for myth and science as two distinct yet connected forms of inquiry.

**Heroism as a Case Study for Interdisciplinarity**

Any venture in heroism science must consider its impacts in a real-world and community context. The need to tackle real-world problems has been a propellant that has resulted in the congregation and fusion of various forms of disciplinary knowledge under the common platform of heroism.

Krohn (2012, p. 32) states that “[w]hatever drives people into highly complex interdisciplinary projects . . . the need for manageable objects and presentable results in their reference community drives them out again.” This is indeed the case with the advent of the empirical observation and scientific era of heroism. The need for tangible results and data is driving the use of various psychological and broader scientific testing methods of heroism—such as prototype analysis (Kinsella, Ritchie, & Igou, 2015b), identification of lay
concepts of heroic behavior (Allison & Goethals, 2013; Franco, Blau, & Zimbardo, 2011; Goethals & Allison, 2012; Kinsella, Ritchie, & Igou, 2015a), and genome sequencing of resilient biochemistries of “genetic heroes” (Friend & Schadt, 2014)—for the first time in the history of its study, confining researchers momentarily back into disciplinary silos.

But the implication of certain other factors drives such research a step further:

If . . . public and political concerns are strong enough to exert a more permanent pressure, the difficult process of discovering and shaping the components of a complex problem can continue and generate a complex field of interactive interdisciplinary research. The problem, thereby, turns into a case. (Krohn, 2012, p. 32)

Pressing issues such as school bullying, gang violence, workplace discrimination, bystanderism, and debilitating diseases, and the political concerns that accompany these at the policy level, have seen the cry for their resolution morph into the promise of heroism as a powerful tool for fostering community resilience and awareness. Over the past decade, a strong sense of “curiosity” and “social responsibility” toward these real-world cases (Krohn, 2012, p. 32) has fuelled growing collaborations between psychologists, other scholars, and heroism promoters and educators. The complex problem of heroism has generated the complex interdisciplinary field of heroism science, thereby becoming a case.

Table 1 provides a preliminary taxonomy of peak, emerging, and underexplored disciplinary avenues of research in heroism science. As interdisciplinarity marks “new modes of knowledge production” (Weingart, 2012, p. 11), so do these broad disciplinary groupings demonstrate the interdisciplinary case of heroism as generator of novel spaces of knowledge production—burgeoning, materializing, or latent. This table is by no means exhaustive; it serves as a starting point for mapping research trends of the breadth of work presently being undertaken on heroism and its correlates across the cultures of knowledge and identifying gaps.

The taxonomy indicates that work across the sciences is the most underdeveloped; nonetheless, the important progress made in these areas in only a short span of time and its impact must be noted, with ripples felt by other researchers taking up the mantle of the bold and intricate study of this phenomenon. Peak areas of activity are located in the humanities, social sciences, and psychology, with psychological research clearly having picked up momentum over the past decade; however, there is still scope for improvement with a number of key areas remaining underexplored. A more rigorous
<table>
<thead>
<tr>
<th>Peak activity</th>
<th>Emerging activity</th>
<th>Low or nil activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and social sciences</td>
<td>Popular culture, cultural studies, philosophy, mythology, creative arts, literature, film</td>
<td>Education, pedagogy, digital humanities, new media, human rights, political science, embodiment theories, history, consciousness studies, transformative studies, religion, international security and counterterrorism</td>
</tr>
<tr>
<td>Psychology</td>
<td>Social psychology, positive psychology, humanistic psychology, leadership psychology, transpersonal psychology, analytical psychology, personality psychology, community psychology, narrative therapy</td>
<td>Developmental psychology, clinical psychology, evolutionary psychology, organizational psychology, embodied cognition, abnormal psychology, experimental psychology</td>
</tr>
<tr>
<td>Sciences</td>
<td>Nil</td>
<td>Biological sciences, neuroscience, embodied cognition, global health genomics</td>
</tr>
</tbody>
</table>

**Note.** It is acknowledged that some of the above fields (e.g., integral studies, embodied cognition, transformative studies, radical embodied cognitive science) are inherently interdisciplinary and do not neatly fit into a single culture of knowledge, but are grouped for the purposes of this table.
survey of the bodies of literature in both contemporary and other periods of research could result in the generation of multiple subfields within heroism science. As researchers from various disciplines turn their attention to a greater number of real-world cases and discover the utility of heroism as an interdisciplinary tool, the gravitas of heroism science as a case for interdisciplinarity is likely to be amplified. The property of heroism as a naturally occurring interdisciplinary phenomenon indicates that heroism science research stands to be relevant to any real-world problem, be it enduring or emerging.

As the field is still in its nascent phase the degree of interactivity between these emerging heroic epistemologies is largely underdeveloped. The enduring barriers that exist between the knowledge cultures means interaction within, rather than between, disciplines is much more commonplace. However, these various branches and attempts at resolving seemingly isolated cases are all intrinsically unified under the common driver of advancing a heroic or improved mode of the human condition. As Krohn (2012, p. 33) states, “[a]ny research field or research project that addresses real-world problems is considered to be essentially interdisciplinarity.” Heroism, by its very nature, is rooted in a preoccupation with the human condition and its possibilities. In essence, any researcher working to untangle the concept of heroism or its correlates under the rubric of a particular discipline, can automatically said to be operating under the interdisciplinary umbrella of heroism science—under this framework, the disciplines of psychology, genomics, philosophy, and so forth, are “interdisciplines, or disciplines with interdisciplinary features” (Krohn, 2012, p. 33) in their acceptance of the case of heroism in all its complexity.

**Preliminary Working Definition**

A preliminary working definition of heroism science must address the interdisciplinary and real-world function of heroism research. Choi and Pak (2006) and Klein (2012) distinguish three forms of interdisciplinarity: “multidisciplinary,” “transdisciplinary,” and “interdisciplinary” research. Choi and Pak (2006, p. 351) conclude that “[t]he more general term ‘multiple disciplinary’ is suggested for when the nature of involvement of multiple disciplines is unknown or unspecified.” These three branches may be addressed in relation to the degree of radicalism and innovation in transcending boundaries between disciplines—from lowest to highest would be multidisciplinarity, interdisciplinarity, and finally transdisciplinarity. Individual enterprises within the field of heroism science may comprise either of the three, and the use of the more general term multiple disciplinary leaves the aim and scope...
of research activity inclusive of any and all methods aimed at shedding light on heroism, broadly defined.

In light of the above, heroism science can be defined as a nascent multiple disciplinary field which seeks to reconceptualize heroism and its correlates (the hero’s journey, heroic leadership, heroic imagination, everyday heroism, resilience, courage, altruism, etc.) through a close examination of the origins, types, and processes of these interrelated phenomena. With the use of a mix of traditional and cutting-edge epistemological and methodological frameworks, and their application in a wide variety of settings (e.g., pedagogy, crisis management, health care, counselling, workforce, community development, popular media, online activism, human rights, digital humanities), heroism science is part of a broader movement which aims to foster holistic well-being, promote heroic awareness and action, civic responsibility and engagement, and build resilient individuals and communities in the face of increasingly complex social landscapes.

Heroism science seeks to understand heroes, heroism, and heroic behavior. Heroism science distinguishes between the subject of inquiry and the process of inquiry:

**Subject of Inquiry.** Heroism science seeks to understand:

- The origins (formation, causes, and antecedents) of heroism.
- The nature of heroism.
- The different types, categories and expressions of heroism, and their impact on individuals and society.
- The functions and consequences of heroism.
- The variety of processes associated with heroism, including biological, social, cultural, psychological, and spiritual.
- Heroism as a dynamic phenomenon.

**Process of Inquiry.** Heroism science draws on all methods of inquiry in the sciences, social sciences, psychology, and the humanities. Illuminating the full range of phenomena associated with heroism science requires *multidisciplinarity, interdisciplinarity, and transdisciplinarity*, as defined by Choi and Pak (2006, p. 351). Specifically, heroism scientists may employ:

- A multidisciplinary approach, which “draws on knowledge from different disciplines but stays within their boundaries.”
- An interdisciplinary approach, which “analyses, synthesizes, and harmonizes links between disciplines into a coordinated and coherent whole.”
A transdisciplinary approach, which “integrates the natural, social and health sciences in a humanities context, and transcends their traditional boundaries.”

Epilogue

The advent of heroism science is a product of broader research shifts toward greater interdisciplinarity, marking a potentially critical moment in the history of science. Heroism science becomes a baseline for building a heroic world and an inquiry into creative and expansive possibilities for individuals, communities, and the ecosphere. This inquiry should be accompanied by an active reframing of research practices and the foundations on which our intellectual training rests. We acknowledge that not all researchers will be willing to transgress disciplinary boundaries as radically as transdisciplinarity allows, for example, with the degree of transgression varying according to the needs of projects engaging with heroism, researchers’ disciplinary training and attitudes to interdisciplinarity, and institutional or funding constraints. Nonetheless, all three forms of interdisciplinarity have their place in research and will suit individuals and teams to varying degrees across institutions, even within single projects as they evolve. The use of the term science will also likely be problematic to some extent. A gradual shift in preconceptions over time, and the practice of heroism as a critical, philanthropic, and inclusive science stands to reshape research and community opinions. If we can develop a science that honors the legacies of individual disciplinary heritages in the humanities, social sciences, psychology and sciences, yet draws on their combined epistemological and methodological strengths to generate new areas of strength, heroism science is well poised to transform individuals and communities alike, and surface the heroic—or the best of human nature.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research has been supported through an Australian Government Research Training Program Scholarship.

Note

1 The term interdisciplinary in this article is understood as being synonymous with Choi and Pak’s (2006) open term “multiple disciplinary” as all-encompassing of
the three types of research, or Klein’s (2012) threefold taxonomy of interdisciplinarity (interdisciplinarity, multidisciplinarity, and transdisciplinarity) in “The Oxford Handbook of Interdisciplinarity.”

References


Author Biographies

Olivia Efthimiou is a transdisciplinary researcher based in the School of Arts, Murdoch University, Australia and an associate researcher at the Australian National Academy of Screen and Sound. Her current research focuses on transdisciplinarity, heroic leadership, embodiment, the philosophy of science, well-being, innovative methods, and sustainable futures.

Scott T. Allison is a professor of psychology at the University of Richmond, Virginia. He has authored numerous books on heroism and leadership, including Heroes in 2011; Conceptions of Leadership in 2014; Frontiers in Spiritual Leadership in 2016; Handbook of Heroism and Heroic Leadership in 2017; and Heroic Humility in 2017. His work has been featured in media outlets such as National Public Radio, USA Today, The New York Times, Los Angeles Times, Slate Magazine, MSNBC, CBS, Psychology Today, and The Christian Science Monitor. His “Heroes” blog has attracted over a half million visitors.
Summary and Link to Next Chapter

Chapter 1, “Heroism Science: Frameworks for an Emerging Field” introduced the concept of heroism science as an embodied science of story, and a foundation for the enterprise of consilience and transdisciplinarity. This is explored in greater depth in Chapter 3, and later in Chapter 7 where the notion of embodiment and the “heroic body” is unpacked as part of a transdisciplinary framework for heroism.

The tensions between the humanities and the sciences discussed in Chapter 1 are explored further in Chapter 2, “Breaking Disciplinary Boundaries: Heroism Studies and Contemporary Research Practices.” Here, I qualitatively assess the function of heroism science as story telling and revising against the lived experience of contemporary researchers.

Breaking Disciplinary Boundaries: Heroism Studies and Contemporary Research Practices

Olivia Efthimiou
Murdoch University

This article explores story and science as products of human cultures, imagination, and innovation, using the recent emergence of heroism research as a case study. Drawing on in-depth interviews with experts in the field of heroism studies and beyond, the paper investigates interdisciplinary perspectives on heroism, and explores synergies between language used in the biological sciences and the hero’s journey story arc. Story and metaphor are found to be important methodological tools in participants’ contemporary research practices. The hero’s journey, in particular, emerges as an interpretive apparatus that can inform interdisciplinary, novel and creative research practices, and facilitate the breakdown of increasingly dissolving disciplinary boundaries. The compatibility of narratives of heroism and biology indicated in this qualitative study is a promising platform for re-introducing diverse ways of knowing and ameliorating the split between competing knowledge cultures in contemporary scholarship.

Background and Aims

There has been increasing recognition of the role of interdisciplinarity in education and research.\textsuperscript{1} The 21\textsuperscript{st} century has marked a shift in research trends across a number of disciplines, especially due to the increasing relevance of technologies in our daily lives, and the demand for more complex and creative ways of thinking about our world. In particular, the focus in the sciences, psychology, and the social sciences which have traditionally concentrated on the study of disease, evil, maladaptive, and irrational behaviours, is now moving towards understanding positive behaviours and promoting personal and collective wellbeing. This has signalled an unprecedented rise in the study of such fields as resilience, flow, spirituality, sustainability, leadership, faith, and many more.

More recently, the academic community has witnessed a resurgence in the study of heroism. Heroism and heroic individuals represent the pinnacle of humanity—what we can become, do, and experience. This has resulted in the beginnings of a science of heroism.\textsuperscript{2} But, as researchers are discovering, decoding the heroic process, its antecedents, and impacts is far from simple. The emerging field of ‘heroism science’ seeks to uncover the many complex layers of this state of human consciousness which has fascinated us since the dawn of humankind, as we look to the future in both awe and fear of what we might achieve.\textsuperscript{3}

\textsuperscript{3} Allison, Goethals, and Kramer, pp. 1-16.
What is heroism? A recent study finds that ‘the definition of what it means to be a hero has changed over time’. Highlighting the elusiveness of the concept, Harrison Weinstein states that ‘The lack of an accepted standard definition is a major hurdle’. Leading studies agree that heroism can vary significantly in context, type, and degree, pointing to the wide range of its contemporary manifestations. However, research seems to converge on the notion that heroism manifests in the presence of a moral, mental, and/or physical challenge, calling the individual to rise to it, which culminates in some form of psychological, spiritual, physical, and/or social transformation.

Constituting the heroic as a deeply transformative process was first conceptualised by celebrated mythologist Joseph Campbell. His cross-cultural comparative analysis evidenced a common pattern in heroic narratives, regardless of local and period manifestations, the hero’s journey. The model details the discreet stages that a hero undergoes in order to achieve hero status. The heroic journey commences with a call to adventure (which can be heeded or denied initially) demanding a physical and emotional departure from the protagonist’s reality. An initiation into an extra-ordinary and unknown world ensues, followed by rites of passage, the discovery of a boon, and the return to the ordinary world, resulting in a deep personal transformation and gift to society. The concept of transformation is interdisciplinary at its core with its application across diverse areas and professions in the humanities and the sciences, such as nursing, education, and psychology—this conceptualisation lends itself readily to an interdisciplinary analysis of heroism as transformative.

The need to tackle real-world problems has been a propellant that has resulted in the congregation and fusion of various disciplines under the common platform of heroism. Wolfgang Krohn states that ‘Whatever drive[s] people into highly complex interdisciplinary projects...the need for manageable objects and presentable results in their reference community drives them out again’. But the implication of certain other factors drives such research a step further:

If...public and political concerns are strong enough to exert a more permanent pressure, the difficult process of discovering and shaping the components of a complex problem can continue and generate a complex field

---

of interactive interdisciplinary research. The problem, thereby, turns into a case.\textsuperscript{11}

The complex problem of heroism has generated the complex interdisciplinary field of heroism science, thereby becoming a case.

The purpose of this article is to examine the role of heroism as a case study for interdisciplinarity and transformative enquiry through the breakdown of disciplinary boundaries, based on a qualitative pilot study examining interdisciplinary perspectives on heroism. The purpose of this study was to develop a deeper understanding of the complex nature of heroism as a phenomenon that continues to be relevant in the 21\textsuperscript{st} century, and evaluate its importance across the humanities, psychology, and the sciences. It aimed to provide an outline of synergies between disparate fields, whether explicit or implicit, in the momentum that is presently building in the study of heroism, which best capture novel and innovative interpretations and linkages of the phenomenon. Therefore, the multiplicity of more ‘traditional’ definitions and contexts of heroism in specific literary works of fiction or films, ancient history, philosophy, classics, ethics, and other such areas will not be addressed.

A core objective of this work is to highlight both culture and science as narratives, and how their joint reading can illuminate our understanding of heroism, and the production of knowledge. It aims to explore how the hero’s journey, metaphor, and story, broadly, are tools for conducting and interpreting research for scholars and educators across a range of disciplines in the humanities and the (biological) sciences, facilitating creativity and innovation.

In-depth interviews with 12 experts from the following disciplines were conducted: positive psychology, social psychology, digital humanities, education, leadership, integral studies, workforce studies, evolutionary biology, and genomics. These were specifically selected as they represent areas in which key studies on heroism are taking place. The interviews were an opportunity for experts to critically reflect on their own research and education practices, and draw out commonalities between disciplines and different perspectives. These commonalities were most apparent in the way researchers used stories and metaphors to explain their perspectives; participants were specifically questioned on their use of story and metaphor in their work. In particular, scientists interviewed were asked if they consider themselves to be storytellers, and in what ways they think scientists tell stories.

To preserve the anonymity of participants in compliance with the study’s ethics conditions, first-name pseudonyms have been used in this article (indicated in quotations), with only the areas of expertise disclosed. In instances where a participant referred to specific research projects during the interview which might identify them, this information has also been removed.

I will discuss participants’ responses in the context of the ‘two cultures’ debate, in which the sciences and the humanities are considered distinct areas of knowledge.\textsuperscript{12} First, I will briefly introduce this debate. I will then present responses that demonstrate the value of story and metaphor in the way in which participants conduct research. Third, I look at how the hero’s journey metaphor is used as a vehicle for interpreting our world, our biology, and

\textsuperscript{11} Krohn, p. 32.
our evolution. Fourth, I discuss a key outcome of the study that the hero’s journey as a mode of enquiry can serve as a bridge in the development of a story-driven science, and research practices more broadly. The article concludes with proposed future directions and a discussion on how the study of heroism can help with promoting science as storytelling that is in service of humanity and more robust research practices. Developing research practices that are committed to shared histories, collaborative dialogue, open knowledge exchange, and creative problem-solving stands to be of great value, by promoting positive transformative change in the researcher, their institution, and the broader community as benefactors of the research.

An Artificial Line? Humanities/Sciences and the Two Cultures Debate

There is clearly great diversity within the humanities and the sciences, with much research operating within unclear boundaries, and showing a breakdown in traditional disciplinary norms that is characteristic of postmodern thought. Emerging research is revealing how literature and rhetoric were important in the rise of the scientific revolution and naturalism; this cultural revolution was marked by complex and at times competing social dynamics and philosophies. This reveals science as generating its own unique culture(s), denoting the value of an interdisciplinary approach to the study of science and story.

Such milestones have been instrumental in advancing the view that ‘elevating science above other forms of knowledge is untenable on a foundational level’. Known as the ‘father of sociobiology’, noted biologist Edward Wilson has addressed emerging evidence for the convergence of disciplinary fields in the presentation of his ‘consilience program’. Wilson proposes that the ‘key to bridge-building is the discovery and analysis of human nature, which consists of the epigenetic rules—the hereditary regularities in mental development’, in which culture and biology share an equal footing, and offers examples such as incest avoidance and aesthetic judgment. Nonetheless, Snow’s landmark lecture which fuelled a heated debate on the two cultures of the sciences and the humanities continues to this day—Snow’s work addressed the dangers that we stand to face as a result of this divide, including the pressing problem of science advancing at an exponential rate at the expense of human rights, resulting in inequities between first-world countries and developing nations. Scholars maintain that this divide is still very real. There has been increasing unification within the sciences, but not between ‘conflicting’ disciplinary groups such as the humanities and the sciences. Hence, some boundaries have gradually dissolved but others remain.

---

16 Wilson, pp. 12, 15-16.
For the purposes of this article, the sciences and the humanities are postulated as two competing disciplinary clusters, in order to more easily examine the theoretical debate of their continuing division. By sciences, I refer to disciplines that are traditionally driven by verifying ‘fact’ and ‘truth’ through precise objective methods, observation, measurement, and quantification, followed by a detailed and precise analysis and discussion of the findings. By humanities, I refer to disciplines that are traditionally occupied with the observation of the world through subjective experience, qualitative methods, narrative, imagination, creativity, and the communication of these findings through more interactive and creative channels (for example, drama, image, poetry).

Given the roots of heroism both in stories of human greatness and human evolution, heroism was anticipated to be an ideal field of study to make an enquiry into the value of narrative across the knowledge cultures of the humanities and the sciences, and how contemporary heroism studies may facilitate the breakdown of the perceived boundaries between the two cultures. As a means of examining the two cultures debate and its application to the study of heroism, interviews aimed to identify: (a) how participants viewed the broad psychological, spiritual, social, and biological impacts of heroism; (b) commonalities in the way different disciplines talk about heroism, science, story, and metaphor; and (c) how researchers today across different universities, settings, and disciplines view interdisciplinary research and its value, and if they are already undertaking such work.

The Hero’s Journey, Story, Metaphor, and Human Evolution

This study revealed links between the way participants think about biology and culture, not only in their interpretation of heroism but the way they conduct research. The hero’s journey as a narrative structure is discussed in relation to biological processes. Researchers interviewed in the study used story as a means of describing and understanding their own bodies at the cellular level.

This section will first consider the link between evolution, scientific discoveries, the hero’s journey, and story more broadly, and then the use of metaphor and storytelling in scientists’ practices more explicitly.

Culture, Storytelling, Biology, and the Hero’s Journey

The hero archetype is firmly embedded in deep time. Popular constructions of heroism are being generated and shaped at a rapid pace across a range of media forms. This persistence of the hero archetype and its cultural tropes is obvious in oral and written hero traditions. Heroism is either explicitly or implicitly invoked in television cultural products such as

---


21 Allison and Goethals, pp. 167-183.
reality shows, news commentaries, and documentaries. Popular current affair shows such as ‘60 Minutes’, ‘Sunday Night’, and ‘A Current Affair’ frequently feature inspiring stories of men, women, and children who overcome adversity. For example, in the reality TV show ‘The Hero’ men and women compete against each other to be crowned a hero, in episodes aptly titled ‘Courage’, ‘Endurance’, ‘Heart’, and ‘Sacrifice’. The media undeniably play a critical role in publicising and celebrating heroic acts, resulting in the production of a common cultural knowledge base of heroism and hero stories.

All participants interviewed were asked to consider how story is important to both the hero’s journey and science, and why heroism and story are closely tied together with the history of human evolution. ‘Nyles’, an expert in heroism, argues that hero stories expand and transform our consciousness; ‘the first stories are hero stories’ which ‘have retained their value over millennia’. They ‘keep us all moving forward as a species’, he adds. This is cited as being the case in Western epic tales such as the Bible and the Iliad. ‘Nyles’ observes that storytelling cannot be separated from the hero’s journey, arguing that the hero’s journey has a ‘deep connection with evolution’.

The study revealed a link between culture and biology in the space of heroism. Participants were asked to share their thoughts on the ongoing impact of Campbell’s legacy and the hero’s journey in the emerging field of heroism science, and science more broadly. ‘Nyles’ comments: ‘the hero’s journey…is a blueprint for how life could be led and how it should be led. It’s an all-encompassing paradigm for growth, for evolution, for transformation’. In this sense, the hero’s journey is regarded as an evolutionary model of the cultural production of our knowledge and its communication through oral and written stories.

Similarly, ‘Susan’, an expert in digital humanities, offers a poetic description of the value of story by considering narrative and biology as equally vital to lived experience. ‘Susan’ views story as fundamental to humanity and embodied experience:

story is communication…from the moment that we’re conceived and we have a heartbeat, and we have ears that are hearing our mother’s heartbeat…so we have a story going on and being told to us…as a sensory being.

If ‘story is told through our whole sensory being’, according to ‘Susan’, we can argue that a ‘bioepistemology’ of story which draws on the fields of ‘evolutionary psychology, the philosophy of science, and cognitive psychology’ to illuminate its complexities is warranted.22 This approach suggests the investigation of a ‘new humanism’ based on a ‘bioepistemological perspective, [that] reconnects literature with human life through scientific insight’.23 Story thus becomes just as indispensable to science, as does science to story, promising new insights into the consilience program of the humanities and the sciences (at least the biological).

A story-based approach to science can refuel the imagination, and add creativity and clear theoretical frameworks to the process of enquiry. ‘Eddie’, an expert in global health genomics, supports the vital role that fiction plays and therefore the importance of establishing a multi-disciplinary team when conducting scientific research: ‘fictions…drive

23 Easterlin, p. 131.
science somehow’. Barry Bickmore and David Grandy concur: ‘the real essence of science is storytelling—creatively making up stories to explain what we observe in the natural world’. Both ‘Eddie’ and ‘Susan’ agree that these fictions are usually ahead of their time, and ahead of the science. Evidence-based research in traditional science, ‘Eddie’ asserts, is ‘somehow...too late’. A healthy imagination is cited as a critical forerunner to this process; as ‘Eddie’ states, ‘without the imagination you do not have a breakthrough. That is the start of innovation’. This echoes Frank Kermode’s view that the imagination is central to telling fresh stories of science. As an example, ‘Eddie’ recalls the discovery of the ring structure of benzene in organic chemistry by German chemist Friedrich August Kekulé which appeared to him as a vision or daydream. On the other hand, traditional scientific methodologies can fill the gap of objective measures often neglected by a story-driven approach. The combined strengths of this approach can achieve the goal of a science that contributes to culture by providing stories that serve ‘as a supportive nexus for human storytelling in general’.

This evolutionary link between science and story is further noted by ‘Felicity’, an expert in positive psychology: ‘story helps explain our story of species...[and] human nature; it is a cultural expression of our adaptiveness as a species. She refers to the most frequently used visual metaphor to represent resilience: a seedling growing out of inhospitable conditions, peering out of dry cracked earth. Another Eastern inspired metaphor similarly pictures a tree with its roots growing out of a rock. These visual metaphors mirror the capacity of a species and nature to ‘survive, and thrive, and grow’, according to ‘Felicity’.

These simple metaphors and visual stories are equally a representation of the hero’s journey and hero stories, as they are of evolution and adaptation, and knowledge-gaining itself. Adaptiveness implies that there is something stopping growth and a fundamental obstacle present; this is a hallmark of both hero stories and the story of human evolution. Adversity, risk, sacrifice, and a resulting irreversible transformation are all as essential for heroism to take root and grow, as they are in these visual metaphors of the evolution of life. Misia Landau illustrates how the hero’s journey and its various stages as a narrative structure can be applied to the Darwinian and most influential post-Darwinian evolutionary theories. Each translation of an evolutionary scientific theory into a hero narrative is a variation on the basic narrative structure. These metaphors are a reflection of the paradox of life, so central to hero stories and human understanding, that life exists despite all odds.

Metaphor in Science; Science as Metaphor

Participants were asked how important they think metaphor is to the heroic experience, and if they use metaphor in their own work. Metaphor features prominently as a core aspect of the work of our participants. Anne Dalke, Paul Grobstein, and Elizabeth McCormack argue

27 Allison and Goethals, ‘ “Now he Belongs to the Ages”’, p. 171.
30 Allison and Goethals, ‘ “Now he Belongs to the Ages”’, p. 171.
that interdisciplinary exchanges are marked by a ‘reciprocal loop’ between the metaphoric relations of one individual and the metonymic structures of another. Interviews evidenced this dynamic exchange of metaphors between the interviewer and the interviewees, as we both grappled with an exchange of the meaning of concepts in the grey area between biology and story, resulting in an alteration of each other’s metonymic awareness.

One conclusion from the study is that the more heightened one’s awareness and knowledge of a subject is, the greater the frequency of the use of metaphors is employed in one’s work. Participants use metaphor to communicate complex ideas, as well as inform and inspire their work, consistent with Scott Allison and George Goethals’ epistemic and energising function of hero stories. Some participants, for example, share experiences of dreams or visions and associated metaphors that have influenced their work, denoting the non-rational aspect of hero stories which cannot be explained using conventional reasoning, due to their spiritual or metaphysical nature. As a general rule, metaphors employed by participants draw on analogies from nature and its symbolism—one participant describes a vivid and detailed dream of an eagle being a harbinger of important information that leads to a realisation about their path as a heroism educator. Another describes the complexity of the concept of heroism by using the metaphor of peeling layers off a complex idea like peeling an onion.

In-depth interviews with scientists affirm the value of metaphor to communicate their work in various contexts. This use of metaphor is not only limited to communicating research to a non-scientific audience, but amongst scientists themselves. ‘Eddie’ confirms that metaphor is a common method of effective communication with his team, and to students when lecturing. He mentions an example of one of his most commonly used metaphors, ‘sweet molecules’, to describe glycans (biological substances attached to glycoproteins and proteoglycans). When asked what DNA means to him, beyond a scientific interpretation, he describes that reading our genetic structure as a story is the most basic metaphor in genomics:

I think it is just like reading a book. You read the letters, then, you’ve got different symbols...commas, full stop...and actually these letters give you a lot of information. When you read a book...all these letters have different meanings. When you put them together, they become a word. Then you put them together...they give you another meaning, phrase, sentence.

He extends this metaphor by describing a person’s DNA book as comprising 23 ‘chapters’ for each pair of chromosomes in a human cell. This narrative of the human genome as ‘information’ that can be read is also linked to the idea that it can be rewritten (i.e. DNA can be engineered). Interestingly, ‘Eddie’ refers to behaviour, the environment, and genes as the ‘three kingdoms’ of understanding the human experience, describing science in virtually fairy-tale like terms.

The use of metaphor is described as a means to effective dialogue, and science communication and education. ‘Glen’, another expert in global health genomics, also affirms

32 Allison and Goethals, “‘Now he Belongs to the Ages’”, p. 170.
33 Allison and Goethals, pp. 170-171.
the use of metaphor as a common way of communicating scientific ideas and his own work. He notes the responsibility that comes with this aspect of science communication: ‘you really got to think it through before you start using little examples, whether it’s metaphors or whatever…that they are appropriate for the context’. He acknowledges the complexity of science communication in the presence of ‘more than one interpretation’ of a single concept, which might have dire consequences on one’s reputation and credibility as a scientist if misappropriated. This is especially the case, he notes, when taking on a genetic counselling role for families from diverse religious, ethnic, and cultural backgrounds, in which attitudes can vary greatly on such matters as ‘termination of pregnancy…the value placed upon life, and] stem cell therapy’. A metaphor that is not relevant to the context in which it is used can result in the other party feeling offended and disrespected, not only personally, but about their deeply espoused religious and cultural education, and upbringing.

When asked to comment on the role of storytelling in modern science, ‘James’, an expert in evolutionary psychology and biology, observes: ‘I think scientists have forgotten to tell stories…but it’s coming back’. This is consistent with observations of the previously curious neglect but recent emphasis of story in science, reflecting a broader shift in academic culture toward storytelling. ‘James’ describes all his lectures and published research as a story; ‘that is the only way that it’s gripping’. He notes, ‘scientists have tried to separate themselves from that because there is this idea that it reduces objectivity’, an enduring attitude in the more traditional scientific circles. However, he reflects that the importance, and indeed necessity from a funding and metrics perspective, to be able to produce work that is communicable and understandable by an audience, makes writing research as a story a task of practical urgency.

‘Glen’ also agrees that science communication in lecturing and public speaking is, in essence, storytelling. He recalls his mother’s commonly used metaphor ‘blood is thicker than water’ despite its simplicity and obvious meaning, he notes what a powerful metaphor this still is when communicating science as an example of an enduring story that is passed down through the generations. He stresses the centrality of the use of metaphor in ‘science as story telling and story revising’.35

it reveals you as not just somebody who’s locked away in an ivory tower somewhere…and that in running your programs and designing your studies, and in analysing your studies can draw on your conclusion, you’re doing it from a much more widely based perspective than just coming up with some answers.

Thus a scientist who can communicate well and adapt their message accordingly to the needs of their audience is an effective storyteller; someone who is able to ‘translate their findings from the laboratory to the general public, not just to other scientists in their own field, but in wider fields, and to the general population’, in ‘Glen’s’ words.

The coalescence of this theme of the importance of effectively communicating scientific concepts and discoveries to the public in these interviews aligns with emerging

literature describing a broader shift underway in the revision of the role of science as story. Influential late biologist and interdisciplinary theorist Paul Grobstein cites John Brockman’s notion of a ‘third culture’ in which ‘scientists are communicating directly with the general public’—this is a call for ‘a less divisive and more widely engaging story of science’ aptly mirrored for example by the ‘citizen science’ movement.\textsuperscript{36} Peter Fensham asserts that ‘behind every advance in science there is a human story’.\textsuperscript{37} If story lies at the heart of both heroism and science, then this shared foundation reveals heroism and science as inherently consilient in their mode and method of communicating their narratives.

This section has offered examples of the centrality of metaphor and story in researchers’ daily practices and interdisciplinary exchanges. Researchers based in both traditional biological fields and humanistic fields borrow metaphors and language from each other’s knowledge cultures, and from broader collective knowledge about what it is to be human. This gives them a better understanding and ease of interpretation of the prevalence of heroism in human history and its continued relevance in our world today, as well as their objects of study outside of heroism. Conclusions drawn from this section include biology and culture as complex narratives we construct to grapple with our humanity, the personal importance of metaphor for researchers to effectively communicate their work and sustain its longevity, and the return of story in science practices accompanied by the recognition of science as metaphor itself and storytelling. These are particularly useful in deriving insights for the future of interdisciplinary work, consistent with emerging research that aims to advance interdisciplinary conversations and academic practices.\textsuperscript{38}

In the next section, the hero’s journey model is explored as an evolutionary narrative. Interview data is presented to demonstrate the intersection of examples of biological processes and specific stages of the hero’s journey.

\textbf{The Hero’s Journey as an Evolutionary Narrative}

In order to see if the language used in the traditional hero’s journey motif makes sense in a biological context, the scientists interviewed were asked to consider if there are any processes at the cellular and genetic level that they would describe as demonstrating any or all of the following:

i. Initiation (being guided or trained).


iii. Successfully passing the test.

iv. Returning to the original state but being different in form.

v. ‘Giving’ something at the end of the ‘journey’.

These stages are definitive aspects of the hero’s journey, as posited by Campbell.\textsuperscript{39}

Specific examples offered by scientists interviewed suggest that the hero’s journey narrative structure appears to be implicit in the way we understand and interpret biology. ‘Eddie’ provided the example of ‘genetic drift’ as an instance of genes being ‘guided’; genes that are not needed are ‘sent away’. These genes fail the test of nature and die out. However,

\textsuperscript{36} Grobstein, p. 10.

\textsuperscript{37} Fensham, ‘Science as Story’, p. 2.


\textsuperscript{39} Campbell, \textit{The Hero with a Thousand Faces}. 
the older, more stable genes serve as guides by retaining the stronger genes; Campbell noted the requirement of a ‘supernatural aid’ on the hero’s journey.\textsuperscript{40} In this case, the aid is firmly natural. This process is called ‘equilibrium’ to sustain the survival of the organism, according to ‘Eddie’, and ultimately the species. Restoring balance at the individual and collective level, therefore, appears to be a common theme in hero stories and biological interpretations.

In addition, this study highlighted the role of diversity in story and biology for sustaining life. These ‘ancient’ stable genes have a highly ‘protective’ and ‘oxidative’ function by producing multiple ‘back-up’ copies in case of a threat; ‘some cells survive longer under stress’, ‘Eddie’ notes. Elaine Kinsella, Timothy Ritchie, and Eric Igou support the protective function of heroism and its benefits for the optimal wellbeing of an individual psychologically, socially, and physically.\textsuperscript{41} ‘Eddie’ describes the ultimate gift of this protective process as ‘life’ itself; as an example, he notes the O blood group as the oldest and most effective ancestral gene, with the AB being the younger ones with their own distinct advantages. All must work together giving the diversity of life; ‘if you just have a single copy, you die’, he says. This statement is concomitant with ‘Susan’s’ point that all the way down, as far as we can go, we never get to just “one”. And if we could ever get to just one, then I guess we could say ‘there’s no story’, but as long as there’s “two”, there’s story [because] there’s some “dance” going on.

This aligns with the emphasis on diversity, cooperation, and duplication described by our scientists.

This diversity might seem as a contradiction to the uniform model of the hero’s journey—but the presence of a persistent narrative structure does not cancel out the nuances of specific settings and cultures. In no other example is this perhaps demonstrated more aptly than the creation of human life. ‘James’ considers the hero’s journey as an interpretation of one of the most basic biological examples: fertilisation and the race of the sperm to fertilise the ovum. All other sperm die, and in 90 percent of cases, only one sperm is successful in reaching the female egg. ‘James’ uses the hero’s journey metaphor to explain how this sperm undergoes a rite of passage through a number of trials and obstacles, including fighting off millions of other sperm and surviving the ‘acidity of the female reproductive tract’ which can be deadly to incoming sperm. So difficult and treacherous is this journey that ‘James’ agrees it is a miracle that fertilisation occurs. Interestingly, he notes that there is training or ‘initiation’ involved, as is definitive of the hero’s journey: ‘there are sperm that can’t swim, or swim backwards, or have two heads…and they somehow help the ones that are successful’. Once more, this is an example of natural aid (though no less miraculous than supernatural aid in narrative terms).

This interpretation further reveals the importance of diversity and cooperation in both hero stories and biology—the journey to fertilisation necessitates challenge and uncertainty. ‘James’ notes,\textsuperscript{40,41}

\textsuperscript{40} Campbell, \textit{The Hero with a Thousand Faces}, p. 57.
you do actually need the millions of sperm...if you had one and you were sure it would get there, that would not be as successful as a million and you just did it by chance.

These serve a ‘guiding’ and ‘supporting’ function. The importance of diversity in the hero’s journey is affirmed by ‘Nyles’:

life is full of multiplicity...Joseph Campbell was a champion of heroic diversity...the structure of the journey is set in place for us but how we define our place within that structure depends on what our unique gifts are.

This mirrors Grobstein’s ‘distributed interactive architectures’, that is, non-hierarchical forms of organising human and non-human activities which possess an almost self-conscious degree of innate cooperation and natural order; these are the most successful patterns of organisation evidenced in the social, and especially the biological domain, according to Grobstein. They are an ‘expression of coordinated collective behavior in the absence of a leader’. Although it would be bold to claim that sperm make conscious decisions as to what role they take on in the unfolding of evolution and reproduction, the assumption of different central antagonist and supporting roles of sperm, eggs, genes, cells, and other biological characters that find their ‘calling’—as would be observed at the social level—seems to be a key feature of how the story of the creation of life plays out at the biological level.

The end of our story completes the cycle of the hero’s journey. As soon as successful fertilisation occurs, ‘James’ continues, the egg ‘reacts’ by developing a ‘hard membrane...so no other sperm can get in’. Notably, ‘the DNA from the egg and the DNA from the sperm...comes together and starts one new cell’ with each of them having half of the DNA required and forming a whole when they come together—this is the ‘return’ stage in the hero’s journey marking a transformation into something that is similar to the original state, yet at the same time different (‘the same number of chromosomes but now they’ve changed’, according to ‘James’). It is also a representation of the meeting with the ‘Goddess’ and the joining of the female and the male as described by Campbell in the hero’s journey. Once again, the boon is the ultimate gift—the gift of life.

In this section, the application of the hero’s journey as an interpretive tool for biological processes such as reproduction and genetic equilibrium indicates the shared foundation of culture and biology in lived story and the ‘life-supporting nature’ of story proposed by Campbell. The hero’s journey provides a narrative structure that informs the way we understand our bodies, culture, and selves across disciplines.

In the next section, I consider to what extent the hero’s journey, as a metaphor and mode of enquiry, can facilitate the bridge-building exercise between story and science, and diverse knowledge systems.

---

42 Grobstein, ‘Interdisciplinarity, Transdisciplinarity, and Beyond’, p. 2.
43 Grobstein, p. 4.
44 Campbell, The Hero with a Thousand Faces, p. 91.
Master of Two Worlds: Bridging Science and Story as a Hero’s Journey

A notable outcome of the interviews was the underlying issue of competing methodologies and narrative perspectives in the sciences and the humanities, and how they can be reconciled in individuals’ work and bring about a broader cultural transformation in academic work. Participants agree that this shift needs to be ‘systemic and integral’ and embodied in the society, in ‘Susan’s’ words. The impact of Western culture in shaping and, in some ways, impeding heroism, as well as contributing to the devaluation of story as inferior to science was a concern for a number of participants. All heroism experts interviewed support that heroism is an inherently interdisciplinary concept. As ‘Bob’, an expert in transformative leadership and integral studies, notes, ‘of course anything in the human domain has got to be crossing boundaries’ and thus truly interdisciplinary.

The story-based scientific method is a circular model for the observation of phenomena. This dynamic approach to enquiry mirrors the paradoxical and cyclical nature of the hero’s journey, described by ‘Nyles’ as ‘counter-intuitive’, especially from a Western cultural perspective that sees progress as ascending and linear. This helps to explain in part the difficulty in adopting not only a heroic mindset, but a story-driven science. ‘Eddie’ and ‘Glen’ affirm the value of a ‘hypothesis-free’ and story-driven approach to gathering data; qualitative research is cited as being indispensable to science. Surprisingly, ‘Eddie’ admits that he does not agree with the use of a traditional ‘hypothesis-experiment-conclusion’ linear model of conducting science. He regards it as impractical. As an example, he cites the human genome project, which did not start out with a specific hypothesis. Both ‘Eddie’ and ‘Glen’ conclude that the two models should ideally work together. The story-driven scientific approach provides invaluable data through the repeated circular journey of observation and summation, which, once undertaken to a satisfactory end, can then lead to a hypothesis. In this reverse logic, the journey results in the scientific boon: the research question which can then be tested and validated through experimentation. ‘James’ agrees that ‘science is definitely an iterative process’ — the hero’s journey and science are both story models that reflect inherently evolutionary and iterative processes that involve change, challenges, and the unknown.

We are at a critical point in the 21st century where we are revising the meaning of science and how science is conducted:

Like other human institutions, the academy both resists and generates the seeds of its own change. Interdisciplinary conversations are, we believe, not only already well on their way to becoming the “center of the academy,” but have the potential to create a new, more productive, and more engaged relationship between the academy, broader intellectual activity, and human life in general.

‘Bob’ agrees: ‘we are already in the domain of questioning the so-called classical scientific methodologies’. A revision of scientific enterprise must involve a rethinking of ‘the way in which science is construed to include narrative, not just things that can be counted’, he states.

---

47 Grobstein, p. 5.
Acknowledging, and redeeming the value of story and qualitative observations in the process of enquiry, ‘Bob’ argues, is vital, reflecting the emerging science-as-story school of thought: ‘to brand qualitative research as unscientific is to relegate it to second-class status’.

One dominant theme, as discussed earlier, was the notion of equilibrium. Interviews suggest that the hero’s journey as a mode of enquiry with its roots in both the humanistic and the scientific traditions could serve as a counter-weight to the perceived imbalance between story and science. Revealing and effectively managing paradox is a core aspect of the epistemic function of hero stories. ‘Graham’, an expert in social psychology, comments on the unique ability of a hero to identify an alternate third path. In the hero’s journey sense, as Campbell observed of the achievement of hero status in the final stages of the journey, the hero scholar who can integrate story and science is a ‘master of the two worlds’. As a bridger of worlds and boundaries the hero has the capacity to balance any aspect of the journey she or he undertakes, and any dualism—science/story, mind/body, East/West, masculine/feminine, and so forth.

Conclusion and Future Directions

This article has hopefully provided a lens into the practical and lived insights of the theoretical two cultures debate, and how new understandings can be reached from a phenomenological perspective in the 21st century. Story and metaphor are central aspects of researchers’ and educators’ practices interviewed. The compatibility of the hero’s journey and human biology as narratives indicates optimism for the future of a story-based and iterative science, and the reconciliation of competing knowledge cultures. Consistent with emerging research, interviews suggest that ‘we may be entering a period which demands a new discourse on the relationship between human knowledge, understanding, and culture’. Story is the heart of knowledge production. The indicative overlaps between humanistic and biological knowledge-making systems might provide a preliminary ‘set of “procedures”’ to assist with extending a more evolved form of knowledge production that is compassionate, human, and planetary centred. A story-based science must be founded on a sophisticated literacy and interpretative proficiency of diverse layers of narratives, and importantly, a consideration of the specific social settings, activities, and relationships that have produced these stories.

Heroism research can contribute to an open, dialogic, and interpretive science. Interviews conducted as part of the qualitative pilot study discussed in this article indicate that a science as story informed by the hero’s journey is founded on the following key aspects: integrative language, collaborative dialogue, transformative enquiry, metaphor, diversity, and employing combined non-linear and linear research models (in succession or concurrently). This is science as a heroic storytelling process that is bound to the story of human evolution and lived experience, and the ‘ongoing individual and collective process of story creation, sharing, and revising’. In Grobstein’s terms, it is an ‘exemplary model’ of

49 Allison and Goethals, ‘“Now he Belongs to the Ages”’, p. 172.
50 Campbell, The Hero with a Thousand Faces, p. 196.
interdisciplinarity, organisation of human activity, and transformative collaborative storytelling.\textsuperscript{54}

Participants’ responses indicate that the resurgence in the study of heroism serves as a protest against the progress narrative underpinning Western civilisation and many of our pre-suppositions about our superiority, as a culture and as a human species. Researchers working beyond the boundaries of knowledge cultures should expect a tension and unease both on a personal and professional level as they navigate their way through these boundaries—a process that is difficult, but stands to be fruitful. Commitment to bearing the uncertainty that accompanies interdisciplinary dialogue and cross-cultural academic work is essential. As Bickmore and Grandy note ‘it is by trying to resolve contradictions between different stories, and between scientific stories and observations, that scientists make progress’.\textsuperscript{55} But just beginning to engage in this dialogue is an important step forward. At the very least, a story-based science infuses researchers and individuals as knowers with a healthy ‘skepticism’ that makes us question the underlying assumptions of our practices and habits, and the facts we take for granted, pushing us to unknown ground and greater heights as is definitive of the hero’s journey.\textsuperscript{56}

The hero’s journey, and the study of heroism as an inherently interdisciplinary enterprise, can be an effective research model which can help break down already dissolving disciplinary boundaries even further. But the realities of enduring divisions between humanistic and scientific language and vocabularies must be recognised—not to further emphasise their differences, but to begin to dissect them carefully and develop novel distributed ways of knowing that do not lose their original meaning, yet achieve a new understanding of the object of study. Both the sciences and the humanities need to be cognizant of each other and work together moving forward. The recovery of the value of story for science is set to not only bring back balance in academia, but our culture. A heroic mode of enquiry is well poised to promote a science that is open, diverse, and preserves storytelling as a vital part of knowledge production.

**Acknowledgements:** This research has been supported through an Australian Government Research Training Program Scholarship. The qualitative study has been approved under Ethics Approval No. 2016/028 granted by the Murdoch University Human Research Ethics Committee on 5 May 2016. The author also wishes to thank the participants of this pilot study for their time, invaluable insights, and willingness to engage with concepts often outside their disciplinary boundaries.

\textsuperscript{54} Grobstein, p. 2.
\textsuperscript{55} Bickmore and Grandy, ‘Science as Storytelling’, p. 13.
\textsuperscript{56} Grobstein, ‘Revisiting Science in Culture’, p. 1.
Summary and Link to Next Chapter

Chapter 2, “Breaking Disciplinary Boundaries: Heroism Studies and Contemporary Research Practices” highlighted the continued relevance of story and metaphor in the way everyday scholars are conducting research and teaching in academia, across the biological sciences, psychology and the humanities.

Chapter 3, “Heroic Ecologies: Embodied Heroic Leadership and Sustainable Futures” takes an in-depth look at how emerging heroism research is beginning to translate into successful case studies of heroism education and promotion. In doing so, it introduces the idea of heroism as a broader social movement, extending thinking on the real-world impacts of the “case” of heroism proposed in Chapter 1.
Chapter 3: Heroic Ecologies: Embodied Heroic Leadership and Sustainable Futures

Heroic ecologies: embodied heroic leadership and sustainable futures

Olivia Efthimiou
School of Arts
Murdoch University
Perth, Australia

Corresponding author: Olivia Efthimiou
Corresponding Author’s Email: oliviaefi@gmail.com

Acknowledgements:
This research has been supported through an Australian Government Research Training Program Scholarship.
Heroic ecologies: embodied heroic leadership and sustainable futures

Structured Abstract:

**Purpose:** This paper seeks to demonstrate heroism as an embodied system of leadership and wellbeing. Heroic leadership is presented as a baseline for sustainable futures and global health.

**Design/methodology/approach:** This paper presents an embodied reading of heroic leadership and its sustainable development across five stages. It outlines its core functions, its grounding in self-leadership through physical and mental trauma, and its holistic benefits, resulting in the development of the *Heroic Leadership Embodiment and Sustainable Development* (HLESD) model. The efficacy of HLESD is demonstrated in an empirical case study of heroism promotion and education: the Hero Construction Company and the Heroic Imagination Project.

**Findings:** Heroic leadership is revealed as an emergent, dynamic and distributed form of sustainable development.

**Research implications:** This paper demonstrates the critical connections between heroism, sustainability, embodied leadership and wellbeing, and how they stand to benefit each other, individuals and communities at large.

**Social implications:** The implementation of HLESD in educational, counselling, activism and broader contexts in consultation with a wide range of professionals stands to offer significant benefits to pedagogies, clinical practice, holistic therapies and 21st century societies, at both the community and policy level.

**Originality/value:** The emerging field of heroism science and the utilisation of heroic leadership as an interdisciplinary tool is a novel approach to wellbeing, which holds immense potential for the imagining and fostering of sustainable personal and collective futures.

**Keywords:**

Wellbeing, Heroic leadership, Hero’s journey, Sustainability, Ecosystems, Heroic Leadership Dynamic, Embodied leadership, Heroism science

**Article Classification:**

Research paper
Heroic ecologies: embodied heroic leadership and sustainable futures

Introduction

Since the dawn of the 21st century there has been a notable shift from the study of disease and maladaptive behaviours to an increased momentum across the social and psychological sciences in the study of optimal human functioning, such as motivation, resilience, altruism, courage and human growth. Notably, an area of study in which a flurry of research is being witnessed is heroism and heroic leadership. The timeless phenomenon and discourse of heroism may be significant in shaping our concept of wellbeing in contemporary culture. A recent study conducted by Kinsella et al. (2012) has highlighted “the importance of heroism in everyday life”. This study acknowledges the wide-reaching effects of heroism across the spectrum of human experience: “The term hero is universal and understood to provide important physical, psychological, and social benefits to people” (Kinsella et al., 2012). A comprehensive and astute knowledge-building of the construct of heroism will therefore be integral to the broader agenda of improving mental, physical and spiritual public wellbeing in the 21st century.

There has been some debate on the appropriation of heroism for leadership, with calls for a “post-heroic knowledge era” (Davis, 2010, p. 43) of leadership due to critiques of the limitations arising from a hero-focus in leadership studies and practice (Bendell and Little, 2015). This paper seeks to demonstrate how heroic leadership stands to benefit individuals and communities at large. The perceived discord between heroism and leadership is arguably largely based on historical narratives of heroism, rather than what heroism can mean today. On the one hand, a methodological focus on senior role holders as especially salient agents of change may restrict our analysis of social and organisational change (Bendell and Little, 2015). On the other hand, research into heroism is just beginning to understand the systemic complexity of the antecedents, processes and consequences of contemporary heroism, and thus offers new opportunities for understanding and enabling sustainability leadership. Therefore, it is hoped that the synergies and case study presented here serve as an indication that, rather than move away from an ‘age of heroism’, leadership and sustainability researchers should join forces with heroism researchers and educators, to develop innovative, critical, sustainable and dynamic wellbeing frameworks. Both contemporary heroism and leadership research stand united in their mutual goal of identifying “where the underlying values and assumptions that drive our leadership, learning and lives emanate from” (Davis, 2010, p. 43).

Wassell (2015, p. 1) stresses that “To confront the myriad of challenges facing humanity in the next century, leaders must focus on wellbeing capital. Wellbeing is a balance point between challenges and resources; it is multidisciplinary and holistic, and it requires fit and co-responsibility”. It is the aim of this paper to highlight the value of heroic leadership by demonstrating its critical interrelationship with wellbeing and sustainability. The increasing recognition of the importance of both heroism and leadership in 21st century societies signals a timely investigation of emerging understandings of heroic leadership for wellbeing. The ubiquity of the enduring phenomenon of heroism and its connection with leadership, suggests that drawing on these synergies could pave the way for the development of an applied model for use in a wide range of settings (healthcare, counselling, pedagogy etc.). A preliminary attempt at developing such a model is presented herewith.
This paper is organised into five sections. First, it will set out the important role of heroic leadership and embodiment as critical connectors to wellbeing in light of emerging literature, as well as evidence amassed over decades of research on the “hero’s journey” as a powerful tool for healing and optimal psychosocial development. The “hero’s journey” describes the theory that across cultures there is a similar concept of a remarkable individual who faces a difficult challenge, experiences a revelation, attains new capabilities, overcomes the challenge and then brings the knowledge or benefit to the community (Campbell, 1949). The second section examines the potential relationship between sustainable leadership and heroic leadership. The concept of an embodied heroic leadership framework is introduced and the importance of an ecosystem approach to wellbeing for increasingly complex and dynamic 21st century communities is emphasised. The third section outlines the emergence of a new heroism social movement and science working to propagate resilient, self-leading and heroic pedagogies and communities at large. The call for a sustainable model of wellbeing is applied to heroism in the fourth section, proposing a five-stage approach to fostering heroic leadership and building heroic communities. Gorman et al.’s (2012) sustainability framework forms the basis for the construction of a sustainable model of embodied heroic leadership. In the fifth section, this model is applied to a case study of two partner non-profit organisations working to nurture heroic behaviour in communities predominantly in the US, Europe and Australia: the Hero Construction Company and the Heroic Imagination Project. These settings offer a preliminary indication of the real-world value of embodied heroic leadership for sustainable development. The paper concludes with some final thoughts on the urgency of developing and sustaining global heroic leadership, and the rewards and challenges associated with this task.

**Embodied heroic leadership: an imperative for holistic wellbeing**

Much of our contemporary understanding of heroism has its roots in Joseph Campbell’s work. Campbell’s (1949) seminal cross-cultural comparative analysis of myths from around the world evidenced a common pattern in hero narratives, regardless of local and period manifestations. This led to the development of the widely recognised “hero’s journey” model comprising distinct stages. Its essence is that the commonality in hero myths across cultures and time is the necessity of rites of passage and trials as a road to transformation and social change. Although historically definitions and theoretical applications of heroism in humanities’ fields such as literature, mythology, philosophy and so forth abound, definitions in emerging psychological research are limited, indicating the need for a systematic and in-depth exploration of this phenomenon. Highlighting the elusiveness of the concept in his investigation of the psychology of heroism, Weinstein (2013, p. 2) states that “The lack of an accepted standard definition is a major hurdle”. Leading studies agree that what ‘heroism’ describes can vary significantly in context, type and degree, pointing to the wide range of contemporary manifestations and the need for further multi-variant systematic studies (Franco et al., 2011, Goethals and Allison, 2012; Kinsella et al., 2017). However, they seem to converge on the notion that heroism describes behaviours manifested in the presence of a challenging event, morally, mentally and/or physically, calling the individual to rise to it, and culminating in some form of psychological, spiritual, physical and/or social transformation.

Emerging scholarly research on heroism is beginning to uncover critical connections between heroism and leadership, resulting in the integrative concept of ‘heroic leadership’. Allison (in conversation, July 31, 2015) describes heroic leadership as “leadership that takes into account all the processes implicated by the hero’s journey, and heroism science”. Allison and Goethals (2014) have introduced the “Heroic Leadership Dynamic” to gain a deeper understanding of the universal profundity of heroism through time. The authors’ (Allison and
Goethals, 2014, p. 169) Dynamic is strategically framed around the notion of “heroic leadership” rather than as simply heroism” based on their focal premise expounded in previous works (Allison and Goethals, 2011; Allison and Goethals, 2013; Goethals and Allison, 2012) that “although not all leaders are heroes, all heroes are leaders”. Heroic leadership is defined as a “dynamic” and “temporal” process that incorporates “various mechanisms underlying personal growth and developmental health”, where “the psychology of heroism unfolds over time” (Allison and Goethals, 2014, pp. 177, 180). This definition provides a solid basis for the integration of heroic leadership in wellbeing discussions. If “we are all developmentally equipped to pursue a lifelong hero-like journey”, as Allison and Goethals (2014, p. 175) suggest, then heeding – or denying – our very nature stands to have far-reaching consequences for our mental, emotional, physical and spiritual state of wellbeing.

The value of heroic leadership in advancing holistic wellbeing is becoming increasingly evident. Allison and Goethals (2014, p. 169) point out that “Lifespan are longer and general health is better today than millennia ago, but there seems little doubt that people today still seek out powerful hero narratives as a tonic for their anxieties and fears”. A study conducted by Allison and Goethals (2014, p. 178) “showed a striking relationship between … respondents’ needs and their choice of heroes. When they reported having a severe health problem, they chose heroes at that time who had overcome their specific malady”; this indicates a relationship between heroic self-leadership and state of health. Kinsella et al. (2015, p. 5) hypothesised that “Given the etymology of the word hero (meaning ‘protector’) … heroes would be the best protectors of psychological and physical well-being”. The results of a series of consecutive studies clearly demonstrated the social, psychological and physical benefits of heroic action and perceptions of heroes as enhancers of wellbeing: “participants thought that heroes enhanced the lives of others, promoted morals, and protected individuals from threats”, and “rated heroes as more likely to fulfill a protecting function than either leaders or role models” (Kinsella et al., 2015, p. 1). Significantly, “thinking about a hero (relative to a leader or an acquaintance) during psychological threat fulfilled personal enhancement, moral modeling, and protection needs” (Kinsella et al., 2015, p. 1). These results provide important preliminary evidence for the positive correlation between heroic leadership – rather than simply leadership – and momentary wellbeing, at least in situations of anxiety.

The beneficial impact of heroic leadership on wellbeing is becoming evident in contemporary clinical practice. Emerging literature cites the co-incidence of trauma and personal growth, and how challenges may feature as an essential pathway for developing resilience, self-leadership and a heroic mode of being. Nelson (2011, p. 26) describes how PTSD sufferers can connect with the heroic domain by “creating their own unique meaning that can be brought out of the experience, writing their own ending to the trauma narrative”. Indeed, “lived story” is crucial to both embodied leadership (Burbank, 2013, p. 3) and heroic leadership (Allison and Goethals, 2014). The experience of trauma and the demonstration of resilience, which “is generally defined as one’s ability to bounce back after a traumatic experience” (Nelson, 2011, p. 7) is instrumental to this process:

What makes our characters heroic is their perseverance through the trickery and shadows, finding or creating light to guide them through the darkness instead of getting lost in it. Heroes are formed through transformative suffering and immortalized in legends throughout time. (Nelson, 2011, pp. 26-27).
Researchers are already beginning to discuss and use initial findings on the physical, psychological and social benefits of heroism to wellbeing in applied clinical and abnormal psychological settings (Kinsella et al., 2017; Ylvisaker et al., 2008). The development of “metaphoric identity mapping”, for example, is a reconstruction technique used in patients diagnosed with “severe traumatic brain injury (TBI)” (Ylvisaker et al., 2008, p. 713). This method promotes the use of the hero metaphor as a valuable tool for enhanced “self-regulation” and “identity exploration and reconstruction”; it serves “as an aid to enabling participants to identify a meaningful, higher representation of what is important to them as a basis for deriving and pursuing rehabilitation goals” (Ylvisaker et al., 2008, pp. 715, 726, 738). The “huge transformational potential” of trauma (Fosha, 2002, p. 4) is the foundation of heroic leadership.

A growing body of research is illustrating the power of the hero’s journey model in its use as a counselling and pedagogical tool for self-transformation. Brown and Moffett (1999, p. 104), for example, support the central role everyday heroic leadership could have on wellbeing in the classroom, education reform and reinvigorating learning in the face of failing models: “Ultimately, the ‘story’ we create in partnership with others is the narrative tapestry at the heart of the hero’s journey in education”. Feinstein et al.’s (1988, p. 24) “five-stage model” developed for use in “clinical, educational, and community settings” demonstrates “the evolution of the individual’s mythology” in therapy. This methodology is echoed by contemporary clinical psychologists such as Williams (2016) and Grace (2015). Williams (2016) uses a 12-stage “Hero Model of Change (HMOC)” in his clinical practice working with a wide range of clients, based on his extensive research on Campbell’s (1949) work. Williams (2016) proposes that the HMOC provides a comprehensive stage-based template for understanding and contextualising personal change in the therapeutic setting for the Client/Hero. This research indicates how rethinking the individual as heroic leader is important to personal and social transformation.

Aside from their role as conduits for wellbeing, heroism and leadership share another crucial point. The centrality of the body and embodied experience is increasingly recognised in emerging interdisciplinary fields such as neuroplasticity, epigenetics and the cognitive sciences – leadership and heroism are no exception. A number of contemporary theorists are exploring the embodied dimensions of leadership, offering innovative conceptions of the somatic and situated aspects of “Being Well and Leading Well” (for examples see: Bathurst and Cain, 2013; Burbank, 2013; Illes, 2015, p. 1; Jankelson, 2010; Karssiens et al., 2014; Laszlo, 2012; Ropo et al., 2013). These have to date been sidelined in place of psychosocial evaluations of leadership and wellbeing. The emerging field of Leadership Embodiment (Illes, 2015; Yoon, 2014), though in its early stages, is already offering important insights into the complexity of this important phenomenon. Similarly, social psychologists such as Gray (2010) are in the early stages of revealing the remarkable link between heroism and its impacts on our bodies – Gray (2010) argues that individuals who have performed selfless heroic acts have reported a notable, and even ‘super-human’ increase in physical strength during the act. Embodied heroism denotes that “all types of heroism encompass a physiological and embodied basis or aspect of experience” (Efthimiou, 2017, p. 141). Embodied heroic leadership can be defined as “a simultaneously universal, yet deeply personal, distinct state of embodied consciousness and intentionality. The lived heroic body is grounded in corporeal knowledge ... and conscious dynamic inquiry within lived space” (Efthimiou, 2017, p. 144). Uncovering the embodied aspects of heroic leadership stands to offer a notable contribution to the development of distributed dynamic wellbeing frameworks.
In this shifting epistemological momentum researchers such as Coyle (2011) advocate the centrality of holistic therapies in improving brain health and the physical body as “portal and path to wholeness”. This approach reinstates the vital role of the body in Western healing illustrating “how body-centered practices support the work of psychotherapy, shortening the time in treatment and improving the potential for psychic growth” (Coyle, 2011, p. iii). How can embodied heroic leadership contribute to this path to wholeness? Rossi (1997, p. 70) emphasises the central role Campbell’s (1949) hero’s journey model stands to play in the development of integrative therapies:

Joseph Campbell’s myth of the hero together with the creative cycle of discovery in the arts and sciences provide a starting point for this exploration, which can then be amplified by recent neuroscience research pointing to a new view of mind-body communication and healing. Along the way we will gather new insights about the nature-nurture controversy and the so-called “Cartesian gap” between mind and body.

At its heart, the hero’s journey is a metaphor for the regeneration cycle, or the innate, and largely untapped, capacity of every organism to heal itself. The biological process of regeneration (whether it be cellular, genetic or other) captures the scientific equivalent of the concept of heroism in its transformative function, and the idea of a journey that alters the individual profoundly at the very cellular level. Embodied heroic leadership heals the Cartesian split and reinstates the centrality of the mind-body continuum, linking transformative heroic action to mental, emotional, physical and spiritual wellbeing; as Burbank (2013, p. 7) states, “anyone can develop transformative leadership qualities. It is a practical result of radical embodiment”. The self-healing properties of transformative heroic self-leadership, as indicated by emerging research, are a testament to this radical embodiment. This preliminary research from a diverse range of fields is indicative of the benefits heroic leadership stands to offer global health assessment, intervention and prevention. As such, this paper is driven by the question: How can an embodied framework of heroic leadership wellbeing contribute to sustainable futures? The importance of answering this question is explored in the next section.

**Heroic futures, sustainable futures: the call for new models of sustainable wellbeing**

While the relationships between the hero’s journey and wellbeing, and leadership and wellbeing have been extensively recorded, the synergies with sustainability are only just beginning to be revealed. The emerging area of sustainable leadership is at the forefront of championing a bold and inclusive notion of global participatory leadership, with all of us “co-creating a sustainable future” (Ferdig, 2007). Significantly, Lin (2011, p. 63) suggests that what is likely “most important to the sustainability of human beings is virtues” including “altruism, honesty” and “heroism [emphasis added]”. Likewise, Caselles (2012, p. 16) proposes Salzman’s (2008, p. 326) “constructive heroism” as a potential solution for the promotion of improved human ethics and a sustainable “just globalization”. This nascent research is indicative of the links between leadership, heroism, wellbeing and sustainability, and the fruitful collaborative space that exists in their mutual reference.

Heroic leadership may offer an emergent, dynamic and distributed form of sustainable development that stands to benefit individuals and communities at large. An integrative **Heroic Leadership Embodiment (HLE)** framework is proposed as a viable alternative to the two competing models of wellbeing – the dominant biomedical and the biopsychosocial (the latter advanced by George Engel in 1977) – and the potential for their reconciliation. This framework is premised on the three functions of heroic leadership: the “epistemic”,

...
“energizing” (Allison and Goethals, 2014, p. 170) and “ecological” (Efthimiou, 2017, p. 146). HLE is founded on an embodied reading of Allison and Goethals’ (2014) Dynamic and their initial proposition of the first two functions. HLE’s epistemic function refers to the acquisition of transformative embodied knowledge and wisdom, and the development of emotional and physical intelligence instilled by heroic behaviour. The energizing function denotes the promotion of biopsychosocial growth, and the self-healing capacity of heroic leadership to mend psychic and physical traumas and promote self-regeneration. Finally, the ecological function refers to the dynamic formation of our identity within all the systems of which we are a part of, live, move, feel in, and assert our agency: social, family, cultural, political, religious and so forth. Embodied heroic leadership involves dynamic, intelligent and embodied human agency.

The ecological function of heroic leadership manages the regulation of suffering and healing, or crisis and order within the broader ecology of the human-hero actor. This is heroic leadership as “emergent leadership” that “recognises environmental, social and financial facets as integrated and inseparable parts of a whole system. That system supports the health of the organisation” (McLean and Wells, 2010, pp. 53, 54) and the individual – heroism is indeed being conceptualised as an “emergent property” (Hutchins, 2013), aligning with such theorisations of leadership. Furey (2015) observes: “the individuals’ heroic knowledge, habits, skills, and reasons for acting heroically are intricately tied to the successful performance of tasks associated with managing the health and functioning of the social ecosystems in which people live, work, learn, and play”. The third function of heroic leadership results in the creation of ecologically and globally minded heroic actors, able to effectively navigate complexity and maintain sustained growth throughout their lifespan in dynamic systems, offering “convincing grounds on which humankind can justify the project of sustainability” (Orr, 2002, p. 1459).

HLE’s foundation is the recognition of heroic leadership, sustainability and radical embodiment as imperatives for holistic wellbeing, and social behaviour as a complex dynamic system of interactions. The energizing function of heroic leadership is deeply related to Orr’s (2002) first challenge of sustainability, which is revising and stabilising the economy to “protect the Earth’s production of real wealth, and develop equity among nations”, as summarised by Odum and Odum (2001, p. 133). The capacity of heroic leadership to contribute to this new eco-friendly economy is reflected in Salzman’s (2008) constructive heroism as a tool for promoting a reformed globalised society. This stabilising capacity of the energizing property of heroic self-leadership is further indicated by Korten (2013); Korten (2013, p. 1) calls for an extension of the personal notion of the “hero’s journey of self-discovery” to “collective self-discovery” in the face of the pressing economic, social and environmental crises plaguing our planet and species. This is an embodied scientific story of a global scale; “a story of many trillions of individual choice-making living organisms cooperating as an intelligent whole to optimize the capture, organization, and sharing of Earth’s” resources (Korten, 2013, p. 4). It is an embodied reading of the planet, with humans and other species as its core agents and mutually interacting organisms within the context of a broader hero’s journey, revealing a co-narrative of human evolution (Landau, 1984) between us and our enveloping world. This energized, ecologically minded and responsible heroic global citizenry is primed to co-author a sustainable narrative of human evolution.

Fergid (2007, p. 25) provides a powerful and bold philosophy for sustainable leadership and growth: “anyone who takes responsibility for understanding and acting on sustainability challenges qualifies as a ‘sustainability leader,’ … They lead ‘with’ … others in ways that account for the long-term viability of complex, interconnected living systems”. This
paradigm challenges conventional conceptions of leadership, and brings personal empowerment into the picture (Bendell and Little, 2015). It aligns with the ecological framework of embodied heroic self-leadership that is founded on the notion of the hero’s journey and leadership as complex dynamic ecosystems. Ferdig (2007, p. 25) adds, “Paradox, contradiction, and differing viewpoints” are vital to “healthy systems”. Importantly, “Sustainability leaders recognize that the experience of change itself, and the dissonance it creates, fuels new thinking, discoveries, and innovations that can revitalize the health of organizations, communities, and the earth” (Ferdig, 2007, p. 25). The inherent property of “paradox” embedded in the epistemic function of heroism and the hero’s journey (Allison and Goethals, 2014, p. 171), its intrinsic interdisciplinarity, and its ecological function grounded in the dynamic interrelationship between crisis, change and growth, render the process of heroic leadership as fuel for novel discoveries, innovations and complex creative worlds. Heroic leaders can therefore be sustainable leaders.

Developing individuals and communities that are well trained in heroic leadership is essential to realising the vision of sustainability. In his conclusion of the requirements for a sustainable world Orr (2002, pp. 1459-1460) surmises:

In words written shortly before his own death, Becker concluded that “The urge to cosmic heroism, then, is sacred and mysterious and not to be neatly ordered and rationalized by science and secularism” (p. 284). No culture has gone farther than our own to deny individual mortality, and in its denial it is killing the planet. A spirituality that allows us to face our own mortality honestly without denial or terror contains the seeds of the daily heroism necessary to preserve life on Earth. Instead of terror, a deeper spirituality would lead us to a place of gratitude and celebration. It would also energize us to act [emphasis added].

From this perspective we are all active participants in our wellbeing and creators of our sustainable futures as energized heroic actors. This sustainable notion of heroic self-leadership development is highlighted in Allison’s (2015, p. 5) revisiting of the “great man” theory of leadership:

The troubles of our world are not for great individuals to solve but for every one of us to solve. Gifts are not the monopoly of great people. Every human being possesses one or more gifts to make the world a better place. Every human being is called to discover his or her gift. The banality of heroism, so deftly described by Franco and Zimbardo (2006), is a concept that can never be emphasized enough in our schools, in our homes, in our places of worship, and in the cacophony of cyberspace.

This is a participatory, open and inclusive concept of sustainable heroic leadership: “We are all destined to walk the same hero’s journey in our own individually unique way, as global citizens and as global scientists” (Allison, 2015, p. 5).

The importance of the participatory and open framing of a model of heroic self-leadership and sustainable development cannot be overstated. Laszlo (2012, p. 95) emphasises that the task of evolutionary leadership “is not a task for a few privileged, ‘enlightened’ ones, but a responsibility for every human being”. In order for “the insights from systems thinking and practice” of heroic leadership to assist “in the transition to a viable future for all” (Laszlo, 2012, p. 95), this model cannot be garnered from a hyper-idealised notion of heroism. It must be grounded in lived experience, embodied reflexivity, and sustainable practices in which we all take responsibility in our roles as heroic leaders to co-create our future. The deeply inspirational property of heroism’s energizing function (Allison and Goethals, 2014) is
central to sustainable embodied leadership; as Jankelson (2010, p. 12) points out, leadership “is not about what one knows or how much one knows; it is what one embodies … To be inspired is to allow the breath, the idea, the meaning to penetrate into one’s body and then act”. Thus, to borrow Ferdig’s (2007, p. 25) words, a model of *Heroic Leadership Embodiment and Sustainable Development* (HLESD) is a compelling leadership opportunity ultimately grounded in a personal ethic that reaches beyond self-interest”.

The wellbeing of individuals and social ecosystems lies at the heart of heroic leadership and HLESD – healthy social behaviour is fundamental to holistic wellbeing. Prilleltensky and Nelson (2002, p. 8) propose an interlinked multilayered model of wellbeing: “Well-being is achieved by the simultaneous and balanced satisfaction of personal, relational, and collective needs”. Koppe (2002, p. 375) also proposes a “framework for integrated wellbeing” across the “physical”, “mental” and “spiritual” dimensions, that accounts for “personal relationships”, the “environment” and “activities” within the broader life context. This is health understood as “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (Koppe, 2002, p. 375). Consequently given the intrinsic universal (Allison and Goethals, 2014; Campbell, 1949; Kinsella, 2013) and deeply timeless (Allison and Goethals, 2014) properties of heroic leadership, it is proposed that a sustainable heroic leadership wellbeing framework be read across the personal (e.g. physical, biological, mental, spiritual, phenomenological, activities), relational (personal relationships), collective (e.g. social, cultural, environmental, ecological), global and cosmological dimensions of experience. The inherent interdisciplinarity and complexity of heroism make this type of multilevel reading an imperative; the capacity for heroic resilience and fostering of heroic behaviour across these broad dimensions reflects a capability driven approach to sustainable development (Lessmann and Rauschmayer, 2013). This embraces, but transcends biopsychosocial readings of heroism – theorists such as McLaren (1998) and Ghaemi (2009) are placing an urgent call for a new model to be developed for evaluations of human wellbeing. Sustainable futures will require sustainable behaviours – the realisation of personal and collective heroic leadership will be instrumental to this enterprise.

In the next section, evidence for early stages of this vision is considered against the backdrop of a broader emergent social movement that calls for the fostering of heroic behaviour in classrooms and communities, and sustainable co-created futures.

**Heroic leadership in the 21st century: an emerging social movement**

The previous section outlined some preliminary theoretical connections between embodied heroic leadership and sustainable development, and their potential impacts for global wellbeing. But this extends beyond theory. There is a broader social movement emerging – heroism is not simply felt at the individual level, but at the collective. In the dawn of the 21st century heroism is morphing into a social phenomenon, with its use to inspire social action and cultivate prosocial, resilient and compassionate behaviour. This resurgence extends beyond academia, with actors specifically galvanising to advance heroic leadership and the hero’s journey as vehicles for enhanced wellbeing across the board. The emerging field of Heroism Science is part of this broader movement which aims to foster holistic wellbeing, promote heroic awareness and action, civic responsibility and engagement, and build resilient individuals and communities in the face of increasingly complex social landscapes (Allison, 2015). Real world social concerns such as school bullying, gang violence, workplace discrimination, bystanderism and debilitating diseases, have seen the cry for their resolution morph into the promise of heroism as a powerful tool for promoting individual and community resilience. The coalescence of the two concepts of heroism and leadership in
heroic leadership, and advancing research to gauge the consequences of this underexplored area for individual, relational and community wellbeing, is emerging as a powerful force.

This potentially seminal historical period is evidenced in the momentum building by heroic mobilisers across wide facets of society – from academics, to business leaders, educators, artists and so forth – in what can be dubbed an emerging grassroots 21st century multidisciplinary heroism movement. These various parts of the movement are joined in their common goal of instilling and bringing to the forefront of social consciousness the notion of the “banality” (Franco and Zimbardo, 2006) of everyday heroism. The movement comprises two distinct, yet interrelated and often overlapping communities: the heroism research, and heroism promotion and education communities. In this “new heroism”, Zimbardo and Ellsberg (2013) are uncovering the powerful effects group dynamics and social forces can have on fostering heroism. Franco et al. (2011, p. 101) have developed a multilevel operational definition of heroism “as a social activity”. The function of narrating hero stories as a primary social activity that affects us profoundly through our interactions with others, helps us grow as heroic actors and imparts knowledge, dates back to our earliest ancestors (Allison and Goethals, 2014). This process is facilitated now more than ever in history with the rise of social media, a space in which we can reflect on, debate and be inspired into action by heroic accounts across all spheres of human activity.

This movement also marks the onset of what can be dubbed a wave of ‘digital heroism’ or the infiltration of hero narratives in the Internet and blogosphere – these are forming the beginning stages of online perspectives of heroism and, more significantly, the historiography of the heroism movement, and heroism in time more broadly. The blogging and social mediascape of contemporary heroism, though still in its infant stages, is a key trend which is providing not only an interactive and creative space for both the lay and intellectual engagement with the concept of heroism, but a space for heroic mobilisers to communicate research and community developments in real-time, share ideas, collaborate, and generate momentum for this 21st century movement (Klisanin, 2015). The advent of this splinter in the study of heroism into the universe of mobile media and the Internet enhances our embodied engagement with the experience of heroism, as active participants in its consumption and reading and contributors to its knowledge-making process through blogs, social media and other locative, social and mobile platforms (Efthimiou, 2016).

A growing number of people from all walks of life are working towards actively raising heroic leadership in the everyday with the start-up of heroic projects and NFPs – this is a distinction between the widespread manifestations of the phenomenon of heroism in the community, media and so forth, and heroism as an organised self-conscious social movement. With the launch of the San Francisco based Heroic Imagination Project (HIP) in 2010, renowned psychologist Philip Zimbardo has spearheaded the dissemination of heroism research and a social intervention-based approach that “encourages everyone to imagine a new world where every school child and every adult is a hero in training” (Franco and Zimbardo, 2016, p. 516). The vast majority of the focus of this momentum is concentrating on arming educators and students with the tools to foster heroism in school settings, in order to combat bullying and bystanderism. Other foci centre on promoting courage in the workplace, and developing a deep understanding of the barriers and facilitators of everyday heroism for the development of effective teaching strategies at the local, and eventually, national and international level. Projects such as the Australian based Hero Construction Company (HCC) work closely with HIP, joined in their mission to ‘build’ heroes in schools and local communities. A number of other like-minded projects such as School Heroes Unite, Cyberhero League, and the MY HERO Project, reflect the deeply prosocial character of the
heroism movement in its mission to build sustainable and resilient communities, and caring and aware human beings and societies. This activist side is what makes the heroism movement a truly grassroots phenomenon – heroism activists are on the ground actively spreading the campaign of heroic wellbeing, often voluntarily and in their own time, out of a deep sense of compassion for their fellow human beings and, at times, frustration with global injustices and unsustainable practices.

What makes this movement particularly powerful is the participation of intellectuals to the cause of heroism education and dissemination, as well as the creative sharing of ideas, both online and offline. The movement is strengthened and informed by the innovative and wide-ranging rapidly emerging research on heroism, with some actors carrying dual research and activist roles. In 2013, the first multidisciplinary international conference on heroism, the Hero Round Table, was held in Flint, Michigan, which has been dubbed “Hero Town USA” since the conference’s inception (Langdon, 2014). On 21 January 2015 “representatives from Hero Town USA” gathered at “Lapeer High School to train about 40 LINKs Mentors on handling social situations” (Lapeer, 2015). The Hero Round Table is a unique annual gathering of research experts, inspirational speakers, heroism movement and community leaders, and passionate everyday people desiring to make a positive change in themselves and their surroundings. The conference is aimed at inspiring and mobilising action through heroism education to help participants transform their communities. In November 2015, Hero Town Geelong (HTG) was launched in Victoria, Australia, coinciding with the first Australian held Hero Round Table conference. This has marked the onset of the sustained and organised delivery of heroism education and training to local primary and secondary schools, workplaces and community centres, with Geelong as the epicentre of this important initiative.

Despite its infancy, the heroism movement is already proving a potent force of collective action, in an age that increasingly demands creative solutions for both new and persistent social issues that are standing in the way of lasting progress and sustainable human and planetary futures. The next section outlines the proposed stages of a heroic model of human societies and ecosystems based on contemporary sustainability and embodied leadership literature, setting the stage for evaluating its applied impact in short-term and long-term settings and its implications for practice.

Toward a sustainable model for promoting embodied heroic leadership

Gorman et al. (2012, p. 88) outline a five-part framework for sustainability, in the context of “understanding and managing complex systems that couple human beings, nature and technology”; this involves “Superordinate goals”, “Moral imagination” and “Trading zones”, as precursors to “Adaptive management” and “Anticipatory governance”. Let us consider how this may be applied to the practice of Heroic Leadership Embodiment and Sustainable Development (HLESD).

1. **Heroic consciousness.** The first stage of a heroic leadership model of sustainable development involves raising awareness of the importance of heroism at the intrapersonal, interpersonal, community, national and international levels, and fostering a sense of unity as “global citizens and as global scientists” (Allison, 2015, p. 5). Developing superordinate goals in the enterprise of heroic leadership demands the raising of heroic consciousness – this results in human agents becoming conscious of “the urgent necessity of working together to solve problems” (Gorman et al., 2012, p. 88) of a wide range, as they begin to conceive of each other as kin
heroic actors united in a common human journey. This growing sense of heroic solidarity is crucial to building a common purpose, a trait recognised as critical to the identity of the heroic leader and psychological wellbeing (Allison, 2014). Modine (2015, p. 2) emphasises its importance:

The development of purpose is central to wellbeing, leadership and sustainability. Individuals and organizations with a clear purpose are more likely to act in ways that are consistent and authentic. Those that lack a sense of purpose are likely to be unnecessarily influenced by external factors and ‘blown off course’. The development of individual and organizational purposes that contribute to a sustainable world are, therefore, crucial.

The development of heroic purpose is central to the development of a heroic consciousness and superordinate goals; initiatives such as the Joseph Campbell Foundation, the Hero’s Journey Foundation, and the Hero Training School have been set up to empower individuals and bring heroism into the modern day and, most importantly, the everyday. Brown and Riedy (2006, p. 1) apply integral theory to sustainability communication as a “comprehensive overview of the systemic, cultural, psychological, behavioral and developmental dynamics that influence any sustainability initiative”. Further research that examines Brown and Riedy’s (2006) eight stages of consciousness development would be useful to enhance our understanding of the evolution of heroic consciousness, and HLESd overall, with a view to developing an improved appreciation of its ramifications for sustainability communication.

2. **Heroic imagination.** Igniting the heroic imagination is a key tenet of contemporary efforts to promote heroic leadership as an integral tool for improving the human condition. Gorman et al. (2012, p. 88) note that “Differences in values can prevent adoption of a superordinate goal. Moral imagination is the equivalent of interactional expertise concerning values; it involves being able to ‘step into the shoes’ of another”. There are immediate connections between the philosophy underpinning the moral imagination and the heroic imagination; extensive research has been conducted on moral heroism (for examples see: Eveleth, 2006; Kohen, 2010; Walker and Frimer, 2008). Franco and Zimbardo (2006, p. 31) originally introduced us to the importance, and depth, of the heroic imagination:

> Heroism is an idea as old as humanity itself, and some of its subtleties are becoming lost or transmuted by popular culture. Being a hero is not simply being a good role model or a popular sports figure. We believe it has become necessary to revisit the historical meanings of [heroism], and to make it come alive in modern terms. By concentrating more on this high watermark of human behavior, it is possible to foster what we term “heroic imagination,” or the development of a personal heroic ideal. This heroic ideal can help guide a person’s behavior in times of trouble or moral uncertainty.

This is a vision of wide global citizenship engagement with the heroic imagination. The development of this skill in our 21st century societies as dynamic complex systems is well suited to an ecological model of sustainable leadership: “Strengthening the heroic imagination may help to make people more aware of the ethical tests embedded in complex situations, while allowing the individual to have
already considered, and to some degree transcended, the cost of their heroic action” (Franco and Zimbardo, 2006, p. 34). Franco and Zimbardo (2006, p. 34) caution that “As our society dumbs down heroism, we fail to foster heroic imagination” and consequently to recognise its vast potential as a mechanism for developing holistic wellbeing – a failure arguably of the ‘post-heroism’ leadership school of thought to grasp the complexity of the phenomenon and its enduring relevance to the modern age.

Many of the proposed strategies advocated by the authors (Franco and Zimbardo, 2006, p. 34) to foster the heroic imagination are grounded in embodied leadership and sustainable decision-making, including: exercising mindfulness in all situations in order to take appropriate action; maintaining awareness of “an extended time-horizon, not just the present moment”; and being conscious of the moral nature of our actions thus fostering the moral imagination proposed by Gorman et al. (2012). Ultimately, this is the definition of the human-hero actor and leader as a “positive deviant”, who “does the right thing for sustainability, despite being surrounded by the wrong institutional structures, the wrong processes and stubbornly uncooperative people” (Parkin, 2010, p. 1).

3. **Heroic zones.** This is the (re)formation and sustainment of physical, online and other spaces in which heroism can be enacted and experienced in a meaningful embodied way, or ecosystems and ecologies of heroic leadership and heroic wellbeing. These collaborative spaces and places – for example, Hero Round Table conferences, workplaces, schools and community halls in which heroism training and education is delivered – will be material evidence of the embodied experience of heroism that link heroic agents for the “exchanging [of] ideas, resources, and solutions across different communities and interests” (Gorman et al., 2012, p. 88). It should be noted that these zones refer to creating both material (Ropo et al., 2013) and mental (Karssiens et al., 2014) spaces in which embodied heroic leadership and experience is felt and enacted. Ropo et al. (2013, pp. 378, 391) consider how “spaces and places construct and perform leadership”, concluding that “the material places and subjectively experienced spaces construct ways of conceiving leadership and, in fact, perform leadership. From the spatial perspective, leadership is truly an embodied phenomenon”. In these embodied heroic zones, actors perform heroic leadership as “bodies move and gesture to one another by inviting and responding to each other in open co-creative spaces” (Bathurst and Cain, 2013, p. 358). This is heroic leadership as “socially constructed, emerging and as meaning making” (Ropo et al., 2013, p. 378).

Developing the preceding heroic leadership capabilities will permit progression into the next phases of sustainable heroic development:

4. **Adaptive management.** Gorman et al. (2012, p. 88) note: “This strategy involves treating management interventions like hypotheses, subjecting them to empirical tests, and revising the strategy based on the results … hypotheses should be constructed not only about environmental impacts, but also about effects on stakeholders”. Adaptive management of the heroism promotion and education movement will require research and community strategies that promote heroic leadership to be flexible, and always dynamically engaged with the needs of contemporary societies whilst maintaining a futures oriented approach. This will include adapting to the formation of new systems, agendas, groupings and
technologies. Embracing change and fluidity within complex systems and being willing to accept personal, intellectual and, possibly physical, risk as part of this endeavour will be important.

The initial phases of testing HIP methods underway in Australia, for example, is an indication of this style of adaptive management – HTG is working closely with researchers at Deakin University, Geelong for the empirical evaluation of HIP training and interventions in schools. This includes a series of pre-tests (including the Zimbardo Time Perspective Inventory amongst others) and post-intervention tests. This is an important step to ensuring quality control in program delivery. HTG is investigating relationships between HIP intervention and socialisation (primary, secondary and tertiary), educational outcomes, resilience in crisis supporters, youth recidivism, and long-term unemployed youth re-engagement with their community. Finally, cultural influences are being considered through extensive testing with HTG and HIP’s partner organisations in Budapest, Bali and the United States (S. Gray, President, HTG Inc., email communication, November 29, 2015).

5. Anticipatory governance. This phase is especially important if heroic leadership is to be sustainable; for Gorman et al. (2012, p. 88):

Global problems and opportunities will require adding more anticipatory, adaptive capability to governance mechanisms, linking decision makers with other stakeholders. These exchanges will have to be motivated by a superordinate goal so urgent that governance structures can be transformed, if necessary.

This is heroism research and advocacy effecting policy and social change at the political, structural and governmental level, as part of a broader interlinked network of heroic leaderful-minded organisations and non-profits whose chief goal is heroism promotion and education. The adoption of consulting roles by both heroism science researchers, and heroism promoters and educators in schools, NFPs, businesses, governments and so forth, to facilitate the widespread and organised infiltration of heroism training at the management and governance stages, will be crucial.

Lessmann and Rauschmayer (2013, p. 95) argue that alleviating “the cognitive and moral burden on individuals” implicated in the demand “to consciously choose sustainable actions” – which they paradoxically deem to be unrealistically “heroic” – is essential for sustainable development. Although an embodied heroic self-leadership model of wellbeing is proposed to ameliorate this burden with its inherent energizing, epistemic and ecological functions and emergent property, “concentrating on the natural environment and … introducing collective institutions” (Lessmann and Rauschmayer, 2013, p. 95) will be essential to effective anticipatory governance in sustainable heroic leadership. This capabilities based approach complements an ecologically informed model of heroic behaviour. It integrates and accommodates an improved understanding of various essential factors, such as the evolution of complex systems and their interactions, “the development of natural systems with human interferences”, “the role of collective-level heuristics in complex decision making and in relation to ethical
individualism”, “dynamics” and “multidimensionality” (Lessmann and Rauschmayer, 2013, p. 110).

This model of sustainable heroic leadership is holarchical – each stage of development and fostering of heroic capabilities is a self-sustaining complex system and hero’s journey unto itself. It is a simultaneous representation of a single stage and the broader five-stage structure in which it is embedded. Each stage is necessary to progress onto the next, but sustains and reflects the overarching path of heroic leadership as a whole. This model can be adopted at the personal, relational, collective, global or cosmological levels of heroic leadership and heroic wellbeing. As Waltner-Toews (2001, pp. 20-21) asserts, we “define health at our boundaries – as individuals, communities, nations and globally – and we achieve health by communicating and negotiating across our boundaries. Think ecosystems, act holarchically, should be the rallying cry of health workers around the world”. The advancing scale to which heroic leadership is represented in this model, from the personal to the cosmological, mirrors Campbell’s (1949) hero’s journey model – from the individual, localised and very personal beginnings of a journey, to the sharing of the hero’s gift with the world, helping to shape and change its policies, governments and institutions at the social, collective and global levels, and ultimately its evolutionary history and origins at the cosmological.

Figure 1: Heroic Leadership Embodiment and Sustainable Development (HLESD): An Ecosystem Model of Wellbeing

Adapted from Gorman et al. (2012); and Allison and Goethals (2014)
A case study of HLESD is carried out below on two non-profit organisations dedicated to fostering everyday heroism: the Hero Construction Company (HCC) and the Heroic Imagination Project (HIP).

**A case study of sustainable action and heroic leadership embodiment: the Hero Construction Company and the Heroic Imagination Project**

Founded by Australian youth educator Matt Langdon in 2006, HCC is a non-profit, as of April 2015, dedicated to heroism promotion and education in schools. It is an innovative program that helps combat bullying and anti-social behaviour, and fosters moral responsibility, greater academic and social engagement, and overall wellbeing in school communities. HCC’s first aim is to raise awareness of the potency of the hero’s journey as a tool for individual and community empowerment, thereby instilling heroic consciousness in its participants and the wider community. HCC is currently developing the world’s first comprehensive heroism training curriculum which will be available free online (Langdon, 2015). The program “uses inspiring narratives about heroes to promote heroic (rather than condemning bullying) behavior … [and] accounts of heroes such as Nelson Mandela, Rosa Parks, Daniel Ellsberg, and Irena Sendler to educate and inspire others toward … positive change” (Kinsella et al., 2015, p. 2). This is a direct application of the extensive literature documenting the use of the hero’s journey as an effective pedagogical and therapeutic tool for fostering personal and social wellbeing. This is achieved through a range of mediums, namely media dissemination (YouTube, TedX talks), social media (Twitter, Facebook), websites, and face-to-face presentations. The Hero Round Table, the world’s first conference for heroism promoters and educators established in 2013, is a further avenue for dissemination of this work. The mission of HCC is to create heroes in schools from the ground up. It is distinct from anti-bullying approaches, in its positive pro-hero driving premise; this is the idea of building heroes and heroic communities that care for others, our society and the ecosphere, in action.

In this initial stage, heroic consciousness is fostered via the development of tools based on the hero’s journey model; primary school and high school children are taught about exemplary historical and contemporary real and fictional heroes. The material which involves a range of visual mediums as well as oral and written activities, aims for inclusive, engaging and effective discussion with students and teachers. The larger assembly gathering is a story-based presentation which provides students with the inspiration to be heroes and leaves teachers with the follow-up tools to facilitate the change (Langdon, 2015). Resources such as the “Hero Deck”, a card game with heroes that engages students in a playful and educational manner, is a practice of effective mindful embodied play. The HCC format is sustainable and ecological in its scope by embracing multiple perspectives (Waltner-Toews, 2001); catering to multiple learning styles is a vital aspect of the HCC program (Langdon, 2015). The aim of HCC workshops is to empower students to make better choices for themselves and others. The hero stories used in the educational material provide knowledge and developmental stages rooted in the wisdom traditions and great mythologies; Allison (2015, p. 3) notes that “Rites of passage play a central role in preparing people to become emotionally, spiritually, and behaviorally ready for a heroic life … Sadly, initiation rituals, so crucial for healthy human development, are largely absent in most modern societies”. In simple terms, students become aware of the timeless hero’s journey, its continued relevance to their world, and more conscious of their commonalities rather than their differences of race, class, appearance, peer circles and so forth, as they begin to develop superordinate goals or a shared human heritage and heroic sensibility.
Illes (2015, p. 7) describes how Leadership Embodiment “focuses on changing habitual, less conscious behaviour and developing more skilful responses in challenging and stressful situations”. HCC’s story-based material is strategically developed with the specific aim to change automatic reactive behaviours of students and the broader school community, and to develop more effective and mindful responses to confronting issues such as bullying. The foundation of the workshops and the heroic mindset fostered by this hero’s journey based training seeks to develop three competencies displayed by significant leaders:

1. Inclusiveness: they are able to expand their presence and ‘embrace’ even large audiences by creating a “we are all in this together” feeling. 2. Centred Listening: they listen with their whole being, hear all what is being said without taking the message personally. 3. Speaking Up: they are able to speak their truth (even when it is not a popular view) with clarity and precision without becoming aggressive or collapsing. (Palmer, 2013; as cited in Illes, 2015, p. 7)

The heroic training material can support the school community “to create space in their fixed patterns of thinking and acting. Creating such space generates the possibility of experiencing meaningfulness and satisfaction at work [and school] and producing innovative results” (Karssiens et al., 2014, p. 231).

The second stage of sustainable development, as presented earlier, involves fostering the heroic and moral imagination. HCC works closely with non-profit organization HIP. HIP “is a 501(c)3 nonprofit organization that teaches people how to take effective action in challenging situations”. According to the website, HIP “is a research-based organization, which provides knowledge, tools, strategies, and exercises to individuals and groups to help them to overcome the social and psychological forces that can keep people from taking effective action at crucial moments in their lives”. This novel enterprise is based on embodied mindful practices and lived experience; it encourages considered and effective heroic action and combating social apathy in a range of settings by providing “meaningful insights and tools that individuals can use in their everyday lives to transform negative situations and create positive change”. This approach is centred on “learning how to wisely and effectively stand up, speak out, and take heroic action against injustice of all kinds – bullying, prejudice, unjust authority, and apathy of passive bystanders in emergencies” (Franco and Zimbardo, 2016, p. 516).

In the third stage, HCC and HIP seek to create ‘heroic zones’, or communities and ecosystems of heroism, with the aim that students and other individuals have the confidence to exercise heroic leadership to speak out against injustice, and to dream about and actively work towards creating a better world. The aim is for the classroom, the assembly hall, the playground, the home, and other material places to be transformed into heroic zones. The annual Hero Round Table conference is a further such space; it is an invaluable networking opportunity for heroism promoters and educators and researchers to connect with each other, and interested members of the public to become educated and receive the skill set to bring back to their local communities and effect positive change. It is in these spaces that heroic action and leadership is demonstrated as embodied skill acquisition. The thesis is that if we are developmentally equipped to pursue a hero’s journey, as Allison and Goethals (2014) propose, then the HCC and HIP sustainable model of heroic behaviour is giving us the tools to reconnect with this innate wiring and our in-built capacity for heroic leadership, fostering personal and community heroic wellbeing in the process.
Some psychological research documents the effectiveness of the HCC programme as a sustainable model for wellbeing (Allison, 2014; Heiner, 2014; Kinsella et al., 2015; Spurlin, 2015). A qualitative evaluation of a HCC presentation by Spurlin (2015, p. 3) reported enduring effects and preliminary indications of success of the programme. Part of this success is attributed to the coalescence of HCC’s philosophy with increased momentum in positive psychology focussing on concepts such as “subjective well-being” (Spurlin, 2015, p. 6). In a doctoral study using a “Courage Measure for Children (CM-C)” instrument, Heiner (2014, p. i) measured the effectiveness of HCC’s program on “62 fourth- and fifth-grade students from Morrish Elementary School in Swartz Creek, Michigan”. The results of the study demonstrated “a significant increase in the students’ levels of courage for the first two time periods” providing early “empirical evidence that exposure to a program about heroism can lead to an increase in the internal feelings of courage in children” (Heiner, 2014, pp. i-ii).

Heiner (2014, p. 37) suggests that the continued implementation of such programs in schools is “essential to a child’s well-being”:

> These findings provide clinicians with a unique method to approach working with children suffering from issues such as depression or anxiety, teachers and school psychologists an avenue to help students who are struggling socially, and caregivers a way to help strengthen their children’s feelings of moral courage. (Heiner, 2014, p. ii).

The approach taken in this case study is not an egocentric or ‘great man’ approach to leadership. The heroic zones aim to give students the tools to self-motivate, self-inspire, and self-propel toward effective prosocial action – this is the essence of emergent, distributed self-leadership and “collective learning” (Lämsä, 2010, p. 140). It is a ground-up approach to fostering heroic leadership that is deeply “embodied and embedded” (Gallagher and Zahavi, 2008, p. 74) in the world around us, our actions and the ecosphere. This is the effecting of positive social change by leading others to enable them to lead themselves, and eventually others. As these zones and “chemistries of strengths” (Cooperrider, 2011) multiply, they could become a growing network and web of ecosystems of everyday self-energizing and self-leading heroes or heroic leaderships.

By effectively carrying out the first three stages of a sustainable model of heroic wellbeing, HCC and HIP are now in the fourth stage of their evolution. Demonstrating adaptive management, the HCC curriculum actively works with schools to adapt its programs (or create new ones) to meet a school’s goals. Those goals may be curricular, behavioral, character-based, or something else; examples of this adaptive management include applying the content to a number of areas, such as aligning with the International Baccalaureate Learner Profile, and a multiple-visit program aimed at creating a student-led cultural change (Langdon, 2015). Effective management at this level could allow HCC and HIP to advance into the fifth part of Gorman’s (2012) sustainable development model, by establishing a clear structure and governance, and effect change at the policy level.

HCC and HIP may become an example of emergent HLE in action, as a sustainable paradigm for fostering distributed and participatory heroic leadership in individuals and communities alike. For heroic approaches to be more widely applied for children’s development will require more evaluation, including attention to those conditions where it might not work as intended. As children are the intended beneficiaries, it is also important that any potential side effects on some types of children are considered, so that the approach can be scaled as responsibly as possible. The effects of the heroic development approach within other organisational settings also invite more research. In particular, it will be useful to explore
how a philosophy of heroism could enable senior managers to practice sustainability leadership.

**Sustainable futures: leading heroic wellbeing into the 21st century and beyond**

As heroism science research advances alongside leadership and embodiment theory, and presents evidence for the significance of heroism for wellbeing and sustainability, the potency of heroic leadership as an integrative concept can be considered. There is perhaps no more urgent time for this welcome union than the present, in “a troubled world thirsty for heroes” (Allison, 2015, p. 1). HLESD is not a “privileged” and “ego-centric” (Davis, 2010, pp. 45, 56) concept of heroic leadership – it is one centred in a deep sense of concern and urgency for the human condition, interconnectedness, and the desire for the emergence of a “planetary consciousness” (Klisanin, 2003).

Though it is offered here in a bold manner, HLESD, and any model, will not be able to fully describe the intricacy of complex systems. Waltner-Toews (2001, pp. 10, 30) notes that “Some authors … argue that the interactions between people and ecosystems reflect an ‘emergent complexity’, which cannot be captured by even our most sophisticated complex systems models”. Nonetheless, developing such frameworks is a necessary endeavour that may serve as a useful guide as we take the challenging road to sustainable development. An embodied systems approach to wellbeing provides further impetus against the notion of the ‘fixed mind’, pushing the idea of self-leadership as perpetual lifespan growth across all facets. The hero’s journey describes a primordial process of personal, social and cosmological evolution, and gaining of wisdom. Denying its relevance, may stunt our biopsychosocial growth and resilience, and blind us to the forces that bind us. As heroic agents, we can become active participants in knowledge production, so vital to sustainable heroic futures in their epistemic basis, and embodied leadership – the heroic “leader will be the embodiment of ideas, a most powerful force” (Jankelson, 2010, p. 14). Innovative futures will require innovative language and vocabularies to engender sustainable communication; aside from social capital, economic capital, intellectual capital and spiritual capital, we may begin to speak of “wellbeing capital” (Wassell, 2015, p. 1), “leadership capital” (Bickel, 2007; Lynn, 2001) and, perhaps, heroic capital. Their accumulation will be integral to sustainable development, where heroic leadership has become a paradigm of sustainable social behaviour.

Ultimately, any discussions on developing an innovative model of heroic behaviour based on the mutual strengths of leadership, embodiment, heroism and sustainability must be applied. The value of heroism to contemporary societies, and efforts to promote and galvanise heroic leadership in everyday communities, will be largely unrealised and ineffective unless their relevance to pressing personal and social issues is clearly explored, tested and demonstrated. Examples of such issues in which a model of heroic leadership may be introduced and offer significant benefits if implemented appropriately – and indeed already is in some cases as we have seen – include, but are not limited to: mental illness; addiction and substance abuse; treatments for debilitating diseases; strengthening developing nations; addressing failing economies crippled by debt and developing a long-term sustainable economic model; unemployment; homelessness; social violence; LGBT issues; Indigenous reconciliation; and cyber-bullying. The use of heroic leadership as a wellbeing tool can be applied across a wide range of settings, and its development be made in consultation with the broadest group of professionals, and those most affected.
Developing these synergies and sophisticated frameworks is an important challenge for researchers and practitioners. Aside from hard work, it will require coming to full collective consciousness of a heroic sense that we have a duty to ourselves to perceive our lives as living a calling. This is a critical junction in the history of humanity on its hero’s journey to sustainable development; as Ferdig (2007, p. 34) stresses, “We can no longer claim ignorance, or innocence. None of us stands outside of the circle of responsibility”. Leading a heroic life, is leading a healthy life, in every sense of the word. Its impacts have nothing to do with the grandiose mythical connotations of the ancient past – they are deeply grounded in everyday lived experience, our bodies, our intimate relationships, our fears, addictions, hopes and dreams, our planet, environment and the universe. Failure to lead a heroic mindful embodied existence may mean we bear the consequences of our inaction and suffer an unsustainable self-fulfilling prophecy; as Albert Einstein famously stated, “The world is a dangerous place to live. Not because of the people who are evil; but because of the people who don’t do anything about it”. Might we all be called upon to be heroic sustainable leaders and active co-creators of our shared sustainable futures?

1 See Figure 1.
2 See Figure 1.
3 For a list of contemporary heroism projects and non-profits see: https://heroismscience.wordpress.com/resources/projects-and-non-profits/
4 See Figure 1.
5 See http://www.heroconstruction.org/
6 See http://www.heroroundtable.com/
7 See http://heroicimagination.org/
References


Williams, C. (2016), *A Mudmap for Living: A Practical Guidebook for Daily Living based on Joseph Campbell’s the Hero Journey*. Dr Clive Williams, Amazon Digital Services LLC.


Summary and Link to Next Chapter

Chapter 3, “Heroic Ecologies: Embodied Heroic Leadership and Sustainable Futures” discussed the mobilisation of heroic agents across a spectrum of social practices. It introduced the concept of heroic action as a skill which can be educated and trained in everyday communities.

In the next chapter, this skill and its crucial relationship with wellbeing is explored further. Framed around a critical analysis of the Aristotelian concept of “eudaimonia” Chapter 4, “Heroism and Eudaimonia: Sublime Actualization through the Embodiment of Virtue” addresses the philosophical roots of the concepts of heroism and wellbeing in classical Greek ideology.
Chapter 4: Heroism and Eudaimonia: Sublime Actualization Through the Embodiment of Virtue

**Attribution**

OE developed the concept in collaboration with leading scholar ZF, reviewed the literature, and wrote and revised the initial manuscript. ZF supervised and critically revised the manuscript, addressed all substantive editorial comments, undertook final proofing, and contributed narrative on the sublime in relation to heroism and eudaimonia. All authors critically reviewed and approved the final version.

OE: 70%

I certify that the candidate’s personal share in the investigation stated above is true and correct.

................................................

Ingrid Richardson (Principal Supervisor)
Heroism and Eudaimonia: Sublime Actualization Through the Embodiment of Virtue

Zeno E. Franco, Olivia Efthimiou, and Philip G. Zimbardo

22.1 Introduction

The notion of heroism as a virtuous existence endures in contemporary empirical studies of the phenomenon; “Heroism represents the ideal of citizens transforming civic virtue into the highest form of civic action, accepting either physical peril or social sacrifice” (Franco, Blau, and Zimbardo, 2011, p. 99). Anderson (1986, p. 592) observed that popular definitions of heroism centre around the notion of ideals such as “great bravery, daring, boldness, valor”, including “virtue”. Building on prior extensive work on moral exemplars Walker and Frimer (2008) explores “transcendence in the lives of moral heroes”. Staats, Hupp, and Hugley (2008, p. 370) argue: “Heroism is a virtue in search of empirical measurement, not only with regard to persons and situations but also with regard to enabling and inhibiting factors (Peterson & Seligman, 2004)”. The stories of heroism and heroic virtue that surmount national and world-wide crises are telling of the enduring relevance of these ancient ideals in our contemporary society.

The study of well-being and optimal human functioning has been a growing central preoccupation of research on human behaviour since the mid twentieth century. The past decade especially has witnessed a surge in research on heroism and heroic leadership. The reinstatement and recognition of the importance of heroism in the twenty first century is significant in terms of redefining our concept of well-being in contemporary culture. Introducing the concept of the “banality of heroism” (Franco & Zimbardo, 2006) escalates its centrality in everyday life, suggesting a transition toward a system of thought in which everyone is a potential hero. For example, a recent study conducted by Igou, Ritchie, and Kinsella (2012) highlighted “the importance of heroism in everyday life”. This study acknowledges the wide-reaching effects of the phenomenon across the spectrum of human experience: “The term hero is universal and understood to provide important physical, psychological, and social benefits to people” (Kinsella, 2013, p. 1).

We argue here that the grounding of heroic action in the everyday and the universal should drive the phenomenological conceptualisation of heroic eudaimonia as timeless phronetic wisdom.
in praxis – heroic phronesis is informed by lived experience and geared toward right and wise action, as well as independent decision-making centred on self-reflection and mindfulness, convergent with the Ancient Greek understanding of the ‘good’. This chapter will reveal the heroic life as confluent with the eudaimonic as “a lifestyle characterised by the pursuit of virtue/excellence, meaning/purpose, doing good/making a difference, and the resulting sense of fulfillment or flourishing” (Wong, 2011, p. 70). But perhaps most importantly it offers an interpretation of the eudaimonic, alongside the heroic, as paradox – it is process and outcome, suffering and joy, downfall and transcendence, weakness and strength, simultaneously. The pursuit of eudaimonia involves the acknowledgement of the mutual value of these contradictory forces, resulting in a negative rationality approach to well-being that transcends the “tyranny of positivity” (Wong, 2011, p. 69); it sees crisis as a fundamental opportunity for growth, revealing the redemptive quality of phronetic action, and heroic action. This is exemplified in a set of attitudes held by those who hold a stance of heroic readiness or potentiality as part of a journey toward a complex understanding of their own optimal state as humans. This state may be deeply uncomfortable as part of day-to-day lived experience, but also profoundly gratifying and actualizing when observed through the lens of a lifetime’s efforts or works (Kohen, 2013).

In this chapter, we explore three major areas where the ideas of heroism and eudaimonia enhance each other and deepen our understanding of the good life, personal well-being, and group flourishing. First, we advance a framework for heroic eudaimonic living and autonomy; we present mounting empirical evidence of the universal potency of heroism and hero stories for personal and community well-being and flourishing. This includes a brief discussion on the relationship between heroic action and phronesis as part of the process of flourishing. Second, we propose that the achievement of heroic eudaimonia and the Good Life is historically and empirically bound to the tragic and the mastery of suffering – the thesis of the tragedy of unrequited heroism, or the costs of not pursuing a heroic path for eudaimonia is presented. Third, we examine the relationship between heroism and an encounter with primordial truth, situations that allow the actor to encounter the sublime. We argue that for some, this encounter is the only moment when fullest self-actualization is possible. In these moments of crisis, heroes must drawn on deep intellectual, emotional, and physical reserves and act in ways that are designed to create optimal outcomes in the midst of crisis. Despite the risks encountered in the heroic moment, this transcendent activity also has a hedonistic element, as the hero enters a state of sublime self-actualization. In this sense, the acceptance even of death can be seen as a hedonistic act, if one views the satisfaction of desire as the highest good and if one, in fact, desires to die well (i.e. to experience beautiful death).

Finally, this prospect for unification of the competing notions of hedonism and eudaimonia is extended to a discussion on developing a theory of heroic eudaimonia, centred on a summary of the set of hero/eudaimon virtues that we have arrived at through considering this space. The discussion concludes with some final thoughts on heroic eudaimonia as the summum bonum of the human pursuit of the path to wholeness and virtue.

22.2 Section 1: The Skill Set of Heroic Eudaimonia

Eudaimonic well-being is understood as the definition of “the good life, to comprise pleasure, a sense of meaningfulness, and a rich psychosocial integration in a person’s understanding of himself or herself” (Deci & Ryan, 2008, p. 6). Heroism or a heroic stance is not necessarily a way of being, but a set of skills that can be called on in certain situations to ensure the actor does not violate core principles that express their personal narrative through actions. This is more of a latent than active manifestation. In this sense, what heroism does is preserve one’s self-respect during and after challenging situations – heroism does not so much push us toward eudaimonia as
it ensures that we do not move away from it (Kohen, 2013).

Below we offer an outline of some of the core properties of the skill set of heroic eudaimonia:

1. **Intrinsic goal-setting and lived experience.**

   Heroic actions and hero stories carry intrinsic value and inherent self-affirming functions; Allison and Goethals (2015, p. 2) support that “heroes and hero narratives fulfill important cognitive and emotional needs, including the need for wisdom, meaning, hope, inspiration, and growth”. This core “epistemic” function of hero stories (Allison & Goethals, 2014, p. 170, 2015) is a central component of eudaimonic well-being; Bauer, McAdams, and Pals (2008) join a string of contemporary authors in supporting the importance of the development of a coherent ‘life story’ as vital to eudaimonia in the development of intrinsic goals, personal growth, autonomy and community well-being.

   One of the core drivers of heroic well-being is its “energizing” property (Allison & Goethals, 2014, p. 170). The centrality of dynamic personal transformation in well-being is discussed by Ryan and Deci (2000, pp. 68, 74) in their analysis of self-determination as a precursor to “intrinsic motivation, social development and well-being”: “By our definition, a basic need, whether it be a physiological need... or a psychological need, is an energizing state that, if satisfied, conduces toward health and well-being but, if not satisfied, contributes to pathology and ill-being”. Diener (2000, p. 34) indicates the importance of the self as interpreter and evaluator of personal life narrative in his investigation of “subjective well-being”: “This subjective definition of quality of life is democratic in that it grants to each individual the right to decide whether his or her life is worthwhile”.

2. **Independent and self-directed behaviour.**

   Autonomy, dynamism and volition are imperative to heroic action. A growing body of work is illustrating the power of the hero’s journey model in its use as a counselling and pedagogical tool for self-transformation and heroic leadership as vital to well-being (for examples see: Brown & Moffett, 1999; Busick, 1989; Goldstein, 2005; Halstead, 2000; Robbins, 2005). The autonomous nature of heroism is freedom of choice and a sense of control over one’s actions: “Subjectively, the hero is fully invested in the realization of freedom, understood in universal terms” (Merleau-Ponty, 1948; as cited in Smyth, 2010, p. 178). This universality and investment of the hero in freedom is a core propellant of heroic action, and the eudaimonics of heroism. Volition is key – the fundamental stance of heroism is toward action, rather than toward shutting down through psychological defences (e.g. fantasy defense) (Freud, 1959). Where non-heroic actors accept ‘fate’, heroes literally choose life through their actions; they elect to take life sustaining risks that create possibility, rather than to accept and succumb to situational constraints, even if it signifies their individual death (literally or metaphorically). This is exemplified in the men and women who jumped out of the World Trade Centre complex in New York during the September 11 disaster when the buildings were on fire. Those were arguably heroic acts, because of the exerted volitional control over a situation that was no longer controllable – those individuals fought back against the void, by choosing how they enter it. Presenting this in a way that broadly makes sense and is acceptable however is, admittedly, problematic.

3. **Mindfulness and self-awareness.**

   Mindfulness and the awareness of “an extended time-horizon, not just the present moment” is a crucial aspect of everyday heroism (Franco & Zimbardo, 2006, p. 34). Situational awareness is a vital skill that is astutely trained in individuals in professions that are likely to call for heroic action and immediate responsiveness (such as firefighters and soldiers). A hero in that moment is in essence a prior “hero-in-waiting” and “hero-in-training” (Zimbardo, 2015) who has recognised and seized the heroic moment; in the event of an emergency their mindful awareness and training allows them to move, react,
perceive, think and feel in a way that is fully situated and immersed in the lived moment.

This heightened mindfulness is not only invaluable in emergency situations, but broader longer-term personal and community efforts to holistic improvement. Much of the efforts of contemporary heroism promotion and education initiatives are focused on combating the culture of violence and bullying in schools. The Hero Construction Company’s1 story-based material, for example, is strategically developed with the specific aim to change automatic reactive behaviours of students and the broader school community, and to develop more effective, mindful responses to confronting issues such as bullying. This is wise and virtuous heroic well-being based on mindful practices and lived experience; it is “learning how to wisely and effectively stand up, speak out, and take heroic action against injustice of all kinds – bullying, prejudice, unjust authority, and apathy of passive bystanders in emergencies” (Franco & Zimbardo, 2016, p. 516).

4. Self-efficacy and pro-sociality.

Allison and Goethals (2015, p. 2) note, “Hero stories provide epistemic benefits by providing scripts for prosocial action, by revealing fundamental truths about human existence, by unpacking life paradoxes, and by cultivating emotional intelligence”. The advanced competencies fostered by heroic action and characteristic of heroes – including “moral elevation”, healing “psychic wounds” and inspiring “psychological growth” (Allison & Goethals, 2015, p. 2) – lend heroism, at least in part, readily as a superior form of prosocial action. Pallone and Hennessy (1998, p. 208) propose that “heroism emerges from a mix that includes neurogenic impulsivity (but not self-aggrandizement), sensitization to prosocial interpersonal environments, and a (more or less chance) encounter with an opportunity to behave impulsively in prosocial ways”. Ryan, Huta, and Deci (2008, p. 139) note that “Studies indicate that people high in eudaimonic living tend to behave in more prosocial ways, thus benefiting the collective as well as themselves”; the demonstrable critical link between prosocial behaviour and heroism suggests a crucial relationship between heroic living and eudaimonic living.

The combination of embodied competencies, social relatedness and capacity for both snap and laborious independent thinking, is the a recipe that can result in improved well-being at the personal and collective level.

Eudaimonia also implies that the individual is tied to the polis – this results in a clear interrelationship between individual eudaimonic activity and community well-being. As a deeply timeless social and cultural activity (Allison & Goethals, 2014; Campbell, 1949; Kinsella, 2013; Price, 1978) heroism serves as one of the highest forms of civic virtue. The ‘gift’ of heroism as the ultimate end result means that the personal benefits are shared with the community and enjoyed in unison; heroic eudaimonia prepares us for the capacity for communication and connectedness at all levels of well-being and interaction.

5. Prudential wisdom and phronetic action.

Phronesis or prudence and eudaimonia are the backbone of “virtue ethics” (Tan Bhala, 2009); in “Aristotelian science … the distinctive role of practical wisdom (phronesis) is to use the knowledge of universals provided by science, dialectic, and understanding so as to best promote happiness (eudaimonia)” (Reeve, 1992). But the essence of phronesis can be found in a very simple concept; “Phronetic action and thinking come close to the normal idea of wisdom [emphasis added] … phronesis is applied or practical philosophy” (Brier, 2000, p. 448). Allison and Goethals (2015, p. 28) argue that “stories about the rise of heroes, and even the fall of heroes, fulfill an important epistemic function by showing us paths to success as well as paths to ruin”. This distinct function of heroism is a guide map on the road to eudaimonia, phronetic action and virtue, and “making the right choices” (Deci & Ryan, 2008, p. 7) that lead to situational or socially optimal, or even beautiful outcomes (Sandy, 2011).

---

1See: http://www.heroconstruction.org/
The increasing flurry of research on heroism and heroic action has “brought with it the deepening recognition that heroic action is much more commonplace than one would at first suspect … This work has brought us closer to an understanding that heroic activity is actually within the grasp of everyone.” (Franco & Zimbardo, 2016, pp. 496-497) The ideas of the virtuous mean and phronesis resonate well with the notion of everyday or banal heroism – at a deep level, heroism is highly situated activity that is a response to a set of constraints and possibilities, and cannot occur through the actions of someone from the ‘outside’. The everyday is where individuals choose to act heroically, or also recognize that the problem is too complex and elect not to act. Heroic phronesis is “practical wisdom” in every sense; it is bound to our lived experience, our self-determination and autonomy as human-hero actors, and driven by “the acquisition of the highest principles for action in society” (Brier, 2000, p. 451). Heroic action with its inherent epistemic and energizing properties is thus one expression of phronesis – applied or practical philosophy and wisdom – in action.

22.3 Section 2: The Heroic, the Good Life, and the Tragic: Suffering as Pathway to Eudaimonia and the Impacts of Unrequited Heroism

Heroism and heroic acts have been celebrated in all cultures throughout history; the heroic state is undoubtedly an exemplary state of human experience. But what of the costs of pursuing, and perhaps most importantly, not pursuing a heroic life, or the ‘road less travelled’? Little or no research addresses this important question. Emerging literature is revealing the downsides of heroism, its transience, and the significant risks associated with its enactment (Franco et al., 2011; Goethals & Allison, 2012; Parks, 2016), contributing to more in-depth understandings of the complexity of the phenomenon. This does not, however, illuminate the consequences of unrealised heroism. The adage ‘it is the things that we do not do in life that we end up regretting the most’ is likely to apply here – this could result in a renewed view of the hero as someone who lives in a way that defends as best as one can against regret, opening the door to a deeply fascinating set of questions. If “we are all developmentally equipped to pursue a lifelong hero-like journey” (Allison & Goethals, 2014, p. 175), then denying our very nature stands to have far-reaching consequences; it is possible that we will never be completely fulfilled unless we realise our innate capacity for a heroic life.

Historically the tragic has been bound to the heroic. Tarnas (1996, p. 396) asserts that major philosophical movements in the West are directly associated with the “archetypal sacrifice” of seminal prophetic and heroic figures – in particular, that Christ’s sacrifice gave rise to Christianity, Galileo’s to modern scientific thought, and Nietzsche’s philosophy of nihilism to the post-modern mind. Allison and Setterberg (2015) cite “pain”, “suffering” and “sacrifice” as the “Necessary ingredients of heroism” and “opportunities for people to develop an extraordinary life”. Findings from a study conducted in 2013 by Zimbardo, Breckenridge and Moghaddam “suggest that the idea of ‘altruism born of suffering’ (Vollhardt, 2009), may extend to the realm of heroic acts as well” (Franco & Zimbardo, 2016, p. 496). Allison and Goethals (2015, p. 13) note:

For the hero, according to Rohr (2011), “the way down is the way up” (p. 18). This paradoxical journey is not just reserved for mythic heroes; all human beings face painful challenges that are a necessary path toward personal growth. “Where you stumble,” wrote Campbell, “there lies your treasure.” (p. 75)

The inextricable link between the tragic and the heroic denotes that living a good life is, in a eudaimonic sense, likely to involve enduring deeply painful experiences. Thus the ability to endure is a virtue in the thought-set of eudaimonia. This is “passive heroism” – endurance, fortitude, and so forth – or the ability to bear up under extreme pressure, to not act in some situa-
tions as a heroic outcome (Zimbardo, 2007; Franco et al. 2011). Denying this process, however, might cause a different and more profound pain for many heroic individuals; that is, they would have felt deeply held principles were abdicated in exchange for the hedonic (in its popular sense). Campbell (1988, p. 113) asserted that the hero’s journey involves following our “bliss”. This is a statement often misinterpreted as meaning that the heroic life is synonymous with a hedonic life – to achieve heroic well-being we must confront the crisis at its heart, and be deeply cognizant of both the costs of pursuing a heroic life, and especially not pursuing it, firmly embedding the heroic state with the eudaimonic at an even deeper level.

For many, the notion of pursuing a heroic life would not pose a consideration in the slightest from the outset. The grandiose pre-conceptions associated with the word ‘hero’ are undoubtedly perpetuated by enduring cultural tropes from both historical accounts and contemporary popular culture of victorious heroes and underdogs. A large part of heroism promotion, education and research is consequently justifiably placed in developing the idea of ‘everyday heroism’, in contrast to these broader historical notions of heroism. Upon closer inspection, the notion of heroism is far more immediate and relevant to our daily lives – put simply, it is a surrender to a higher calling and what we know is right for our immediate circumstances. This ‘calling’ is very personal and differs for everyone. In a deceptively simple, but deeply profound statement, Campbell (1988) described a hero as someone who gives themselves to something bigger than themselves. Contemporary researchers such as Dik, Shimizu, and O’Connor (2016) are indeed framing heroism as a calling. But like anyone who hears the door knock and does not answer it, we will never know who came calling – and it is not knowing that causes the greatest amount of uncertainty, disempowerment and suffering in many cases. By implication, if a heroic life stands to offer its actors a range of benefits, its opposite state of refusing its call denotes that the individual must suffer the psychological, spiritual and biological costs of this refusal. If the positive state of following a heroic path is heroic well-being, then its opposite is a pathological state of malaise and dis-ease (with the emphasis placed on the “natural state of ‘ease’ being imbalanced or disrupted” by holistic wellness practitioners (Desy, 2015)).

If we think about heroism as fundamentally transformative, maybe one of the ‘powers’ that heroes gain is the ability to metamorphosize things or to act on the world (even their personal psychological world) in a transformative, creative way. If the hero is the “master of two worlds” (Campbell, 1949), the heroic actor is able to act with a new set of skills borrowed from this dual experience. The effective mastery of pain in all its forms and the achievement of self-transcendence through this uncomfortable process and passage through the ‘unknown’ world, is thus the pathway to heroic virtue, and heroic eudaimonia.

An important part of this idea is the notion that accepting and confronting our mortality is integral to heroism. Fostering the notion of the banality or everyday heroism in contemporary society denotes that we need to move away from the ‘ideal’ notion of heroism, and reconceptualise it as something grounded in human weaknesses and flaws, as the road to achieving virtue and excellence. Satisfaction and pleasure are therefore not the only source of the Good Life; paradoxically in this reading, discomfort, pain and dis-ease are. This extends to our ability to face death – both terror management and purpose are as central for eudaimonic well-being (Bowie, 2011; Keyes & Simoes, 2012; Robinson, 1990; Routledge et al., 2010, 2011) as they are to the heroic (Allison, 2014; McCabe, Carpenter, & Arndt, 2015). In their investigation of the “role of mortality awareness in heroic enactment” McCabe et al. (2015, p. 104) have found that:

after reminders of death and linking pain tolerance to heroism, participants reported less pain on a cold pressor task (CPT). Further, those reminded of death and given false-feedback indicating heroic performance on the CPT, i.e., significant levels of pain tolerance, had lower death thought accessibility.
This emerging empirical research evidences the integral link between facing one’s mortality and heroic eudaimonia. As Robinson (1990, p. 18) notes, “The wise man comes to grips with his mortality and recognizes that the prudent life is one that will spare him such pain as might reasonably be avoided”; prudence is a virtue of the heroic that is often overlooked. This heightens our sense of purpose, self-determination and the awareness of the transience of our existence, resulting in a Heideggerian heroic-being-toward-death. Herein lies the paradoxical virtue of hero/eudaimon – that in moving to accept death, we affirm life, risking only what we must.

This is a type of “negative rationality” approach to heroic eudaimonia expounded by thinkers such as Popper and Hegel (Agassi, 2014; Agger, 1976). But this negative heroic rationality is not to be confused with martyrdom. ‘Sacrifice’ has been commonly associated with heroism since the Christian era, a notion which has endured in contemporary observations (Franco et al., 2011; Glazer & Glazer, 1989; Blau, 2013). Nonetheless, the passage through the pain and tragedy, however essential, is necessary in order to achieve deep personal and collective transformation. At its heart, heroism is a core transformative process (Allison & Goethals, 2014, 2015). It therefore requires the acknowledgement of the outcome as much as the process, as well as some degree of hedonic experience albeit advanced, in the achievement of that transformation; this is what we have termed transcendent hedonism, defined as ‘wise pleasure’ and satisfaction in a life or set of actions well executed, even if there are steep costs.

22.4 Section 3: Heroism as the Embodiment of the Sublime

Traditionally, “From Aristotle to contemporary positive psychology, well-being or happiness has been usefully proposed to consist of at least two ingredients: hedonia and eudaimonia” (Berridge & Kringelbach, 2011, p. 2). But the two have been conceptually at odds with each other in the Western philosophical tradition, with the hedonic state being synonymous with “a high rate of positive affect and low rate of negative affect” (Wong, 2011, p. 70) and “outcome” focused, versus “content” and “processes” driven eudaimonia (Ryan et al., 2008, p. 140). As we have seen, eudaimonia with its meaningful, purposeful and process-driven orientation fits well with emerging readings of the heroic process.

But hedonism is not completely irrelevant to an analysis of heroic well-being. In many instances of heroism, the appropriation of heroic status is still largely dependent on the outcome. Further, the ‘feel-good’ sensory pleasures associated with the execution of heroic tasks, and if one is lucky, victory of the heroic outcome and its associated altruistic properties. For example in saving someone’s life or shielding someone from a profound injustice are deeply meaningful acts that, even if not taken in the moment for pleasure, ultimately can be reflected on as providing meaning and create powerful forms of epicurean satisfaction. Indeed, heroism is still largely associated with the victor rather than failure, and altruism, though not the same as heroism (Franco et al., 2011), carries a distinct pleasure property. Berridge and Kringelbach (2011, p. 2) argue that “Conceptually, hedonic processing and eudaimonic meaningfulness are very different from each other. Yet, empirically, in real people well-being has been found to involve both together”. Deci and Ryan (2008, p. 3) also concur that “the two are highly correlated, and most researchers agree that there will be considerable overlap”. If we read heroism as an acquired skill, this is an instinct that is cultivated over time. Situated and embodied heroism aligns with the hedonic in its emphasis of sense experience grounded in our immediate environment and situatedness in the everyday.

Heroic action calls for a heightened awareness, mind-body connection and sense perception of our immediate surroundings and experiences, and an interest in the generation of optimal (perhaps even beautiful), and thus satis-
fying, outcomes. At times this even means a willingness to engage with things that are “terribly beautiful”, i.e. the sublime (Burke, 1998; Kearney, 2003), which carry deep risks for the actor and others in the situation. Encountering these sublime moments of beauty/terror may be pleasurable in and of themselves, as these moments bring one closer to the primordial, unvarnished state of existence, thus offering a transcendental moment of escape from the mundane (Schneeberger, 2011), even though these situations are necessarily bounded in the everyday. Paradoxically, while the hero may be acutely aware that the situation calling for heroic action may push them over the edge, into the void (death, destruction, loss, etc.), for heroes, achieving one’s highest state may only be possible when the stakes are so high, thus in part explaining the appetitive desire to enter into the heart of crisis situations.

Thus, for heroic actors, fighting against the void and a complementary knowing, appreciation of, and even communion with the void are necessary antecedents for entelechy to be achieved. In this sense, heroes are deeply aware of, and find pleasure in negotiating the edge of the event horizon between entropy and order, between the powers of primordial vastness and the desire to survive in the present finite moment. Where others run away, cower, or pretend nothing is wrong because the crisis is so frightful, for heroes these situations are the conditions under which they feel most alive. Heroes attempt to martial all of their intellectual understanding, physical knowing (Efthimiou, 2016), and emotional insight (Allison & Goethals, 2014, p. 171) to express dominion on the indomitable.

This fullest expression of embodied knowing and action is the achievement of greatness, of one’s highest state within the contexts and constraints of daily life; a practical perfection. And thus, the very action of heroic intervention, even if it ultimately fails, can imbue its own form of pleasure. Even in the face of defeat, the hero can be satisfied that all avenues of action were exhausted and that her duty was full discharged. This is ultimately a form of hedonic pleasure in the personal embodiment of ethics, allowing one’s mind and body to not just know what the virtue ethics are, but to literally become them. In so doing, one’s acts become instantiated in a way that defies the erasure of time and become a guide post to others.

A breadth of research is evidencing the value of embodied practices to well-being in everyday contexts (for examples see: Bunne, 2013; Humberstone, 2015; Impett, Daubenmier, & Hirschman, 2006; Payne, 2014; Sointu, 2006; Van Der Riet, 1999). The sensory basis of heroism is only just beginning to be investigated by researchers. Parks (2016) outlines some of the preliminary findings for the hormonal bases of heroic action; Kafashan, Sparks, Rotella and Barclay (2016) and Preston (in press) are investigating the neurobiological drivers of heroism. Ryan et al. (2008, pp. 140–141) argue for the importance of pleasure to well-being:

the focus of hedonic research is on a valued but delimited state, namely pleasure. Although pleasure is often demeaned as an important human outcome, it is in our view a very significant one. Pleasure and positive affect are important human experiences not only because they represent intrinsically preferred states, but also because they can facilitate and support other human functions... Moreover, it is clear that pleasure, psychological health, and optimal functioning are inter-correlated.

A heroic act may carry the properties of hedonism. Heroic acts do often involve an apparent element of “impulsivity” (Pallone & Hennessy, 1998, p. 139) (as is characteristic of hedonistic acts), such as throwing oneself in harm’s way to save a person from danger. Heroic pleasure is not a self-centred pleasure. It is centred around the ‘other’, being “in service to others in need” (Franco et al., 2011, p. 101), and surrender of the self to the ‘other’ – whether it be a person, an ideal, a group or a cause. Campbell (1988) defined a hero as “someone who has given his or her life to something bigger than oneself”. There is a satisfaction and an evolved sense of pleasure that comes from heroic nobility, virtue and self-sacrifice, following one’s bliss in the Campbellian sense and surrendering to something greater than oneself.
22.5 Discussion: Developing a Framework to Explore Heroic Eudaimonia

A number of researchers are now embarking on the ambitious enterprise of mapping a science of happiness and eudaimonia (Berridge & Kringelbach, 2011; Keyes & Annas, 2009; Layard & Layard, 2011; Deci & Ryan, 2008; Ryff, 2014, Chap. 6, this volume). The epistemic function of heroism opens the door to a phenomenologically informed science of heroic well-being that recognises science, in its mechanistic and Newtonian traditional sense, as but one form of valid empirical knowledge and means of observing our Heideggerian ‘being-in-the-world’.

We propose that an exploration of heroic eudaimonia be based on the conceptual and empirical observation and testing of the central virtues associated with the processes and outcomes of heroism, which we have preliminarily identified in this chapter. In summary, these are: purposeful sacrifice; embodied mindfulness; mortality awareness; self-leadership; self-efficacy (e.g. emotional, physical and other intelligence); social relatedness (or collective consciousness?); prudential wisdom and action; transformative action; redemptive action; resilience (moral, physical, mental, spiritual etc.); transcendent hedonism (or wise pleasure and delayed gratification); and, paradox regulation.

The stabilizing view of heroic well-being reveals the hedonic and the eudaimonic as corequirements for happiness – one defines the other and reflects the human experience in its entirety. As hero-human actors we need to experience true subjective well-being, and both inner and collective balance. In their efforts to develop “a neuroscience of pleasure and well-being” Berridge and Kringelbach (2011, p. 1) “discuss how brains might connect hedonia states of pleasure to eudaimonia assessments of meaningfulness, and so create balanced states of positive well-being [emphasis added]”. Kashdan, Biswas-Diener, and King (2008, p. 219) argue for the problematic nature of continuing to make this distinction between hedonic and eudaimonic states of well-being which “does not necessarily translate well to science. Among the problems of drawing too sharp a line between ‘types of happiness’ is the fact that eudaimonia is not well-defined and lacks consistent measurement” – hence a science of heroic eudaimonia must address this enduring and limiting epistemological divide, and aim to not only reconcile the two perceived competing states, but travel beyond that to consider the relevance of heroism to other forms of happiness, such as “prudential” and “chaironic” (Wong, 2011).

Achieving heroic well-being, and a science of heroic eudaimonia, should thus involve not only reconciling hedonism and eudaimonia, but recognising the presence of different epistemologies of happiness that all lend well to heroism, and the need for their integration, rigorous observation and accumulation of data. The synergy of heroism and heroic well-being with different types of happiness demonstrates the need for a more inclusive balanced approach based on empirical observation and lived experience, and an integrative open and embodied science that critically assesses ancient philosophical traditions and divided epistemologies. The notion of everyday heroism, heroic eudaimonia and heroism science are the balusters on which this union may rest. Heroism offers an avenue not only for the bridging of the hedonic and the eudaimonic notions of well-being, but the basis for the development of a “balanced interactive model of the Good Life” as a carrier of “the four pillars of the good life as meaning, virtue, resilience, and well-being” (Wong, 2011, p. 69).

The mindful and situated approach to everyday heroic eudaimonia arguably offers the welcome “pause” for well-being thinkers called on by Nussbaum (2008, p. S108). Everyday heroism situated in lived experience offers a prime example of this intermission in the field of eudaimonic well-being, and meaningfully reconceptualises it. The heroic life is thus a virtuous life, and by implication, an exemplar of the eudaimonic life. “Happy warriors” (Nussbaum, 2008) can be reframed as ‘hero warriors’ grounded in heroic resilience through suffering. But “While advocating for more everyday heroism is an easy, positive, and
potentially impactful message to send out to citizens and especially our youth, a number of important empirical, philosophical and ethical questions remain” (Franco & Zimbardo, 2016, p. 497). The risk and suffering inextricably bound to the heroic process, stands to be a critical consideration in the eudaimonics of heroism and their impact on heroic self-determination and autonomy, from both a philosophical and empirical standpoint.

It could boldly be said that heroic eudaimonia is the *summum bonum* of the human pursuit. Perhaps its most ambitious offering is the potential for a science of happiness that transcends the knowledge cultures and their traditional boundaries, producing a balanced path to well-being. The hero’s journey is an evolutionary process of growth, personal and social evolution, and phronetic wisdom and praxis, ultimately leading to expression of personal perfection in moments of complexity and crisis. We have a duty to ourselves to perceive and live our heroic calling, and be mindful of the consequences of our inaction. As the height of autonomous and civic virtue, heroic phronesis reveals eudaimonia as “life for the hero” (Levit, 2013).

### References


2015/04/05/suffering-and-sacrifice-the-necessary-ingredients-of-heroism/.


Franco, Z., Blau, K., & Zimbardo, P. G. (2011). Heroism: A conceptual analysis and differentiation between...


Schneeeberger, A. (2011). Aesthetics of the brink: Environmental crisis and the sublime in Mary Shelley’s Frankenstein and Philip K. Dick’s do androids dream of electric sheep?


Summary and Link to Next Chapter

Chapter 4, “Heroism and Eudaimonia: Sublime Actualization through the Embodiment of Virtue” provided another unique lens through which to appreciate the transformative process of heroism discussed in previous chapters, as well as its embodied aspects which have been sidelined from contemporary research.

The next chapter builds on the discussion relating to these transformative and wellbeing markers of heroism. Chapter 5, “Heroic Play: Heroism in Mindful, Creative and Playful Participation” retains the focus on everyday engagement with heroism first presented in Chapter 2. It foregrounds the suitability of adopting interdisciplinary innovative methods such as visual, digital and autoethnographical – and narrative enquiry more broadly – in the study of heroism over traditional methods, as complimentary emerging areas. The chapter explores cyberheroism, collaborative heroism (Klisanin 2014, 2015, 2017) and the infiltration of user-generated heroic narratives in our culture and the Internet. These are forming the early stages of the cultural production of heroism in new media spaces.
Chapter 5: Heroic Play: Heroism in Mindful, Creative and Playful Participation

Heroic Play:  
Heroism in Mindful, Creative and Playful Participation  

Olivia Efthimiou  
Murdoch University  

Abstract  

This article explores the presence of heroism in playful engagement with mobile, locative and social technologies, drawing on select ethnographies of Australian households. Heroic modalities in the data are examined in relation to mindful creative forms of play that can be collaborative or personal, socially conscious or acutely self-reflective, altruistic and non-altruistic. All modalities presented in this article, I argue, involve heroic leadership as a transformative and imaginative form of creative communication and engagement with modern technologies. The playful aspect subverts some of the more traditional views of the heroic imagination and heroic action, such as sacrifice and risk, resulting in novel and hybridised heroic modalities. As a new form of play, heroic play emerges as the height of transformative, mindful and creative playful participation, indicating the potential for the banality of playful heroism in the everyday.  

Keywords  

heroic imagination, collaborative heroism, cyberhero archetype, mindful play, creative play, heroic leadership  

Link to Article in Interactive Media E-Journal  

The infiltration of mobile, locative and social technologies in our everyday interactions and daily rituals is having a profound impact on our sense of self and sensory experiences (Hjorth and Richardson 2014). The significance of hero archetypes in popular culture, gaming and creative production in the 21st century has been discussed by a number of theorists (for examples see: Ardill 2008; Buchanan-Oliver and Seo 2012; Klisanin 2012; McLoone 2010; Viega 2012). The heroic use of technologies specifically, however, and representations of everyday heroic action in online, social and digital spaces is an emerging and innovative area of research (Klisanin 2015, in press). Here, the enduring phenomenon of heroism meets the postmodern cultural playful turn. Both heroism and playful participation are powerful emerging ways of theorising everyday lived experience, its meaning, and our active participation in contemporary societies. This marks evidence for “an important interdisciplinary moment across game, Internet, and media studies at a critical point in the cultural evolution of play” (Hjorth and Richardson 2014, 14), as well as the evolution of the concept of heroism and the production of heroic narratives at large.

Playful engagement with technologies, people and our surroundings is an increasingly ubiquitous mode of interaction in everyday spaces. Drawing on select ethnographies from Perth and Adelaide households as part of the 3-year project The Game of Being Mobile (GoBM), this article aims to showcase the presence of heroism in the use of contemporary technologies in two ways. First, I will explore the significant potential of mobile, locative and social technologies as creative spaces in which the conscious and dynamic act of re-imagining the self is a heroic enterprise; and second, I will consider engagement with these spaces and technologies as a form of collaborative heroic action, and a vehicle for the mindful and creative communication of personally significant and socially conscientious ideas.

These two trajectories of inquiry highlight an important distinction between the study of fictional representations of heroism, the creative production of hero archetypes and transitory non-present playful engagement with these (Hjorth and Richardson 2009) on the one hand, and the highly reflexive and deliberate identity of the user as creative practitioner, problem solver and wielder of these heroic modalities on the other. It should be noted that not all participants in the project engage with their devices, games and social media in what could be described as heroic modes of playful participation; indeed, participants demonstrate varied ways of engaging with and thinking about their devices, in frequency, style of play, creativity, and so forth. As such, for the purposes of this article, examples have been specifically isolated from the data which most effectively demonstrate this distinct use of technologies as an emerging phenomenon.

The article will begin by presenting three core concepts in the emerging literature that are relevant to the investigation of creative modes of play as heroic modes of play: the heroic imagination (Franco and Zimbardo 2006), the cyberhero archetype (Klisanin 2010, 2012), and collaborative heroism (Klisanin 2015, in press). The key properties of creative play and heroism will be identified through a review of contemporary literature. Next, the presence of these heroic modalities in the creative, mindful and playful engagement with technologies in
the ethnographic data is explored. The article concludes with a preliminary summary of the requirements for heroic engagement with games, social media and the Internet on a variety of interfaces. Everyday heroic playful participation is a novel hybrid space of interaction that holds interesting potential for innovative and playful forms of transformative collaborative action, critical reflexivity and creative communication.

Emerging Perspectives: Heroism in Digital, Online and Playful Technologies

Interest in the study of heroism has made a notable return over the past decade, not seen since the uptake of Campbell’s (1949) seminal work on the hero’s journey as a universal model for understanding the structure of stories (Allison and Goethals 2015, in press). This new wave of scholarship is premised on an understanding of heroism as an attribute that is not limited to a privileged, special few, but “banal” – something which “seems in the range of possibilities for every person, perhaps inspiring more of us to answer that call” (Franco and Zimbardo 2006, 31). Franco and Zimbardo (2006, 32) have theorised four core features of everyday heroism in a 21st century world: the presence of “some type of quest”; “actual or anticipated sacrifice or risk,” which can be discretely “physical” or “social”; a “passive or active” preservation of an ideal; and “a sudden, one time act, or something that persists over a longer period of time.” The founding premise behind the idea of the heroic imagination first theorised by Franco and Zimbardo (2006) is that:

heroism is much easier to engage in if the individual has already considered some of the situations that might require heroic action, if the actor has anticipated what some of the barriers to that action might be, and if personal consequences have also been thought through and transcended at least to some degree. In this sense, developing one’s heroic imagination primes the individual to take action if and when the time comes. (Blau, Franco, and Zimbardo 2009, 3).

The shaping and narration of the heroic imagination specifically in digital spaces is only just beginning to be studied. Blau, Franco and Zimbardo (2009, 4) speculate that the digital era and “our media-driven culture … presents new situations where evil can thrive, and yet also creates opportunities for individual and collective heroic action that were never before imaginable.” Klisanin (in press) concurs that this evolution in the use of media platforms means that our use of the term heroism has also evolved in its complexity and collaborative aspects.

The emerging importance of the heroic imagination is perhaps nowhere more obvious than in game design and gameplay. McGonigal (2011) champions games as fruitful creative spaces and urges us to go on our own life-altering “epic journey,” aligning with the quest aspect of Franco and Zimbardo’s (2006) heroic activity and the heroic imagination. McGonigal (2010) supports play as a vital means to creatively solve real-world problems. Parkhurst (1999, 18) defines creativity as “[t]he ability or quality displayed when solving hitherto unsolved problems, when developing novel solutions to problems others have solved differently, or when developing original and novel (at least to the originator) products.” The creativity, self-confidence and resilience instilled by games inspires collaboration; in play mode we are the “best version of ourselves” on an epic story and mission (McGonigal 2010). According to
McGonigal (2010), the history of gaming is bound to our successful evolution as a species, alleviating suffering and resolving challenging and topical problems.

McGonigal (2010) proposes four core benefits of gameplay: “urgent optimism” to tackle a problem immediately with assertiveness; a sense of being intimately connected to a “social fabric,” building “bonds and trust and cooperation”; “blissful productivity”; and “epic meaning” found in “human, planetary scale stories.” These “superpowers” result in the definition of gamers as “super-empowered hopeful individuals … who believe they are individually capable of changing the world.” McGonigal (2010) boldly asks: “Are we on the threshold of our own epic game?” and, by implication, a novel hero’s journey as a human species? Finding out how to translate this super-charged intrinsic playful motivation into real-world contexts is the driver of McGonigal’s (2010) research. Her game designs are an innovative and interactive means of instilling the heroic imagination and preparedness in everyday individuals in the face of issues such as the oil crisis and global extinction, resulting in a transformative experience. Her 2012 game SuperBetter, for example, aims to build essential life skills such as coping with mental illness, facilitating recovery from physical trauma, and building resilience: the game incorporates themes that are central to a real-life hero’s journey as first postulated by Campbell (1949), centred around overcoming challenges, perceiving the self as a hero, and drawing strength from allies. Heroic play is thus a form of creative and planetary-centred problem-solving.

The ubiquity and infiltration of playful participation in our everyday lives is giving rise to new social, digital and other forms of expression of human activities. One distinct such novel expression is the emergence of cyberheroism as the most “dedicated” form of digital altruism; this marks “the first incarnation of a new archetype: the cyberhero” (Klisanin 2012, 1).
According to Klisanin (2012, 18), cyberheroism is a sustainable form of playful participation that can foster the personal and collective heroic imagination in the 21st century.

In her exploration of the emergent phenomenon of collaborative heroism through three social media initiative case studies, Klisanin (2015, 1) argues that “just as interactive technologies and social media have profoundly impacted the social, economic, and political spheres, among others, so too are they impacting the mythic and moral spheres—giving rise to a form of heroism described as collaborative.” These are “digital altruists” who take their creative and interactive use of technologies one step further (Klisanin 2015, 3). The core distinction between digital altruism and cyberheroism, according to Klisanin (2015), is that digital altruism involves concern for another but does not require long-term commitment, or repeated action. Further, collaborative heroism involves accomplishing “noble goals” that have worldwide consensus; this is defined in terms of collaborative actions that aim to accomplish the Articles of the United Nations, Universal Declaration of Human Rights and/or Earth Charter (Klisanin 2015). It requires dedication and involves the sum total of collective actions taking place in the matrix of the cloud. Klisanin (2015, 14) concludes that the “data cloud has become a situational factor in our lives submerging individuals within an interactive matrix where clear dividing lines between action in the ‘cyber’ world and the ‘real’ world disappear.” This nascent research supports the rise of a collaborative form of heroism, the ripple effects of which can be felt far and wide in real time.

It must be noted that both traditional and emerging theories of heroism incorporate the presence of risk or sacrifice in the heroic act, when life and limb is on the line. This is an important distinction from theorisations of play and creativity. Andersen (1994, 81), for example, describes play as the arch conduit and harbinger of creativity: “the process of play gives us energy, focus and creativity.” Andersen (1994, 81, 82) argues that “play depends on two rudimentary ingredients: safety [or “psychic” safety from “the harshness of reality”] and stimulation.” For “pure play” to be present certain sub-determinants must qualify (Andersen 1994, 81). In terms of safety, play must be “episodic,” “freely engaged” and have “risk-free ramifications [emphasis added]”; for stimulation, play must involve “uncertainty,” “the use of personal strategy” and “revolve around power” (Andersen 1994, 82-84).

The confluence of play and heroism is likely to subvert the properties of each of these activities in their pure form, resulting in a hybridised form of playful heroic engagement with contemporary technologies – I will discuss this aspect in forthcoming sections. One key outcome of location-based and networked interaction is the generation of “hybrid spaces” of interaction and presence (de Souza e Silva 2006). Frith (2012, 250) describes these as “spaces that merge social connections, digital information, and physical space.” In everyday heroic playful participation, the emergence of hybrid spaces involves the reduction of risk involved in the play to a certain extent. This is potentially accompanied by the toning down of the other components of heroic activity, but still necessitates their presence in some degree or form which would otherwise not be present as pure creative play. Klisanin (2015, 4) notes this crucial distinction in a technologically grounded form of heroism: “There is a seeming lack of risk involved and an ease of engagement—that flies in the face of our traditional conceptions of heroism” as a result of the collaborative nature of the Internet. Heroism in playful participation must, after all, still be playful to some extent. In the following two sections this distinction will be examined in light of ethnographic data and our participants’ engagement with the heroic imagination and collaborative heroism.
The Heroic Imagination in Mobile, Locative and Social Play

A creative mindset is integral to identity formation; practicing a future-oriented approach by heroically imagining “alternative future scenarios that might play out” (Franco and Zimbardo 2006, 34) is an important aspect of heroic engagement with modern forms of play. Markus and Nurius (1986, 954) first theorised the notion of “possible selves” as a representation of “individuals’ ideas of what they might become, what they would like to become, and what they are afraid of becoming, and thus provide a conceptual link between cognition and motivation.” Parkhurst (1999, 14) notes the position of the “widespread nature of creative abilities” – not limited to traditional ‘creative’ pursuits but as a mindset – and its concordance with wellbeing. In his exploration of creative communication and practice, Crouch (2007, 108) notes that Habermas’ idea of communication implies mindfulness; “one is aware of one’s active role in the construction of meaning” (Crouch 2007, 108). The inclusion of the heroic in mindful intrapersonal and interpersonal creative communication and identity formation has novel implications for the role of contemporary gaming practices and playful participation overall.

Some participants in the GoBM project revealed the convergence of critical reflexivity, the creative use of devices, resilience and the heroic imagination, as exemplified in the following two accounts based on interviews and observations.

Patrice is a 52-year-old single mum and government employee from Perth. She dreams of being a farmer and an artist – her use of mobile, locative and social play is a representation of her engagement with her heroic imagination. Her kitchen is strewn with hand-written inspirational quotes and self-affirmations. The collection of photos on her tablet’s Pinterest boards (e.g. “Kitchen,” “Vege garden,” “Photography,” “Renovating,” “Art”) helps with her household design and renovations – her home is literally an artwork in progress. Being a single mum of an 8-year-old boy, imagining a more positive and productive future takes courage and resilience in the face of financial, time, work and family constraints, whilst maintaining her physical wellbeing on a daily basis after a recent bout of ill health. Patrice is actively ‘dreaming’ her ideal self into reality in a very embodied way, through the use of her hands with her sketches, flicking through inspirational photos and articles on her tablet, and using them as resources. She uses her phone and tablet to research and schedule appointments with suitable workmen, and is physically working to create her dream home from the ground up. Collecting photos for her Pinterest boards and browsing free sites such as Shutterstock is a fun, easy and playful way of getting quick inspiration. When she sees a photo that inspires her she makes a basic drawing in her sketch book and a layout plan, and breaks it down into more detail. There is a degree of risk (emotional, financial and otherwise) involved in this process; not in the space of play – which as Andersen (1994, 81) suggests must provide “psychic” safety – but in daring to visualise and create a better future, with mobile and other technological spaces as vehicles. The tactile interfaces of her Samsung tablet, in particular, and her iPhone, together with the hand-drawn sketches of her inspired designs become containers of her heroic imagination. They are fluid, creative, mindful and resilient spaces in which the self is re-imagined.

Belle, a 36-year-old university student from Perth, is learning how to play the electric guitar again after a 10-year hiatus, with the interactive gaming guitar tuition interface Rocksmith on her PlayStation 3. While playing (and in off-game time when watching other Rocksmith players upload their in-game recorded tracks on YouTube as a source of inspiration and tutoring),
Belle confesses she often imagines herself being on stage as a competent guitarist. Belle used to be an active singer-songwriter and guitar-player. Music was an integral part of her life growing up and in her early years at university, and in defining her identity and rebellious spirit against her traditional upbringing. She abandoned play, and much of her mindful creativity, coming out of university as the adult responsibilities and financial challenges set in. Belle partly jokes and laments that this was her dream as a teenager, noting the sense of loss she always felt when she did not play for a long time. The game has given her licence to assume creative ownership, and has come at the right time, as she is now becoming a professional author and researcher; *Rocksmith* is complementary to this overall creative and playful re-shuffling of her everyday lifestyle. Notably, Belle mentions that she has had to “fight” for the emergence of this space in her social, domestic and online spheres – the unfolding of her heroic imagination is a very conscious, deliberate and assertive choice.

Both Patrice and Belle are using their devices, whether it is their tablet, phone or PlayStation, as a means to embark on a Campbellian personal quest, as is definitive of the heroic imagination and the hero’s journey. They are a reflection of an everyday hero’s journey as a personal epic quest to redefine oneself, and instances of the “productive process of ‘self-actualization’” (Giddens 1991, cited in Crouch 2007, 107). Their embodied engagement with these devices is a vehicle of initiation and crossing the threshold into a new imagined reality and an improved version of themselves. Indeed, as Klisanin (in press, 20) notes, “as we move further into the future—of wearable, augmented and virtual realities—we will increasingly be required to recognize the digital environment of our extended mind as part of our embodiment.” Patrice’s and Belle’s Pinterest, PlayStation (and other) user accounts and domains become a “digital representation” of themselves, “an avatar” which allows them to “create a new identity for oneself, while in reality remaining the same person, [which] mimics the dual-persona and shape-shifting characteristics of the superhero archetype” (Klisanin in press, 20). By occupying both the ordinary everyday and the possibility of extra-ordinary heroism in the domestic and cyberspace, they embody the cyberhero archetype as an instance of a hybrid space between “the real and the imagined” (Klisanin in press, 20).
Notably, at least in these early stages as indicated by our participants’ stories, the heroic imagination does not necessitate an altruistic motivation or the desire to shape a better world, but rather a commitment to “the development of a personal heroic ideal” (Franco and Zimbardo 2006, 31) to shape an improved self-identity, whatever that may be. This is highly “situational and personal” (Franco and Zimbardo 2006, 31; Klisanin 2015) for every creative and conscientious user and gamer. Further, in both the above cases, the risk is associated with setting up the conditions of a lifestyle that can incorporate this playful participation, through resilience in the face of life challenges leading up to the play – rather than the play itself – and the ongoing resilience associated with continuing to exercise their heroic imagination. This preliminary phase of heroically re-imagining the self is a representation of our participants being “heroes-in-waiting” (Blau, Franco, and Zimbardo 2009, 4). Here, the creative and playful use of the PlayStation and tablet to re-imagine the self makes heroic play a very distinct mode of heroic expression.

Our two participants go one step further in their use of these devices in the home than regular play – they are actively demonstrating heroic leadership (Allison and Goethals 2014) in their creative interactions and intentionality. Heroically led playful participation is centred on the inspired, energized, imaginative and transformative (Allison and Goethals 2014, 2015, in press) creative use of technologies. Transformation is a key property of the heroic process that we are only just beginning to appreciate the depth of (Allison and Goethals in press). Observation of domestic mobile gaming and other playful practices in the GoBM project to date, has revealed three distinct but interconnected and fluid modes of attention and creative communication in play: transitory non-present or ‘time-filler’ play, mindful gameplay, and mindful creativity. Each of these denotes from lowest to highest respectively, the degree of reflexivity and mindfulness – or modes of attention and distraction – within and between social, digital and/or physical (or hybrid) spaces. The evidence for heroic leadership in the upper modes of mindful creativity suggests the presence of a fourth category of mindful mode of attention as the height of playful participation – heroic play. Heroic play is transformative play, during which our identity is re-shaped through our purposeful and resilient embodied interactions in the everyday.

The collaborative, risky and pro-social aspects of the heroic imagination and the use of hero archetypes with personal devices are explored at greater depth in the next section.

The Cyberhero Archetype, Collaborative Heroism and Mindful Play

The distinct term ‘mindful play’ is beginning to inform our understandings of gaming practices. Twitter pages by Games for Change and Global Gaming Init are promoting the notion of mindful gameplay which is already starting to infiltrate our discourses of play. These conceptualisations of mindful play are centred on “[t]he separation into games for ‘fun’ and games for ‘change‘ [which] has given new life to the exploration of serious ‘real-world’ topics in game making” (Dutta 2015, 2). Dutta (2015, 7) advocates the concept of mindful play as an “alternative methodology for game design in the service of activism and outreach,” creating spaces for “play as conversation, [and] play as consideration.” Cyberhero League, “an interactive gaming adventure with real world consequences” currently in development, is an example of such novel forms of mindful play that encourage the proliferation of the cyberhero archetype in a seamless blurring of online and offline worlds (Klisanin 2015, 2). Cyberhero League spurs players to go on a series of quests or activities to collect historical and cultural
artefacts hidden in locations around the world. Victory unlocks treasure in the form of real world aid for people, animals and at-risk environments, fostering heroic and playful engagement with the everyday.

![Cyberhero League](image)

**Figure 3**

*Cyberhero League:*
An innovative style of playful, mindful and collaborative heroism

When we speak of mindfulness in practices of play we may refer to the degree of intentionality, presence and engagement with the activity of play. In the emerging phenomenon of collaborative heroism, any individual who uses social media platforms and online/digital networks “to act on behalf of other people, animals, and the environment … in the peaceful service of achieving humanity’s highest ideals and aspirations, e.g., world peace, social justice, environmental protection, and planetary stewardship” is said to embody the cyberhero archetype (Klisanin 2012, 7-8). Australian ethnographic data from our GoBM participants reveal instances of this heroic and mindful play in service of a noble goal. To ascertain the presence of collaborative heroism in participants’ practices with their use of technologies, Klisanin’s (2012) “Cyberhero Questionnaire” ii was used as a guide.

Doug is a 71-year-old university lecturer from Perth. He does not play games but is a very mindful and conscientious user of his devices. He often shares YouTube clips, website links and research articles on issues he cares about with his vast network of local and overseas scholars, professionals, colleagues and relatives as useful resources – although they vary in topic, all these resources are aimed at elevating the consciousness of his contacts and inspiring his network, a property that is integral to collaborative heroism (Klisanin 2012) and heroism at large (Allison and Goethals 2014, 2015). Importantly, he uses the online world as a vehicle for championing causes he cares about and to galvanise support. Recently, he kick-started a campaign on the Australian fundraising site Everyday Hero in which everyday citizens can promote noble causes they are passionate about. Doug created a supporter page for the 2015 Perth to Busselton Charity Bike Ride. The website allows contributors to post
updates, images and videos of what they are doing and share these with friends on Facebook and Twitter to help get the word out, as well as include a personal story why they are supporting the cause. This creative storytelling reveals an instance of collaborative heroism and mindful play as an act of transformative creative communication.

For the sixth year, Doug is part of a small but dedicated group of riding enthusiasts who will jump on their bike and cycle from Perth to Busselton, all raising funds for Western Australian children in need. This is not a competitive race, but an event that allows people to enjoy the Western Australian countryside in a friendly environment while raising funds for Variety, the Children’s Charity of Western Australia. Organised and led by a volunteer committee, all funds raised from this event go towards the Variety Freedom program, for the provision of equipment to children and young people in need, such as wheelchairs, modified bicycles, specialist car seats and more.

Doug’s account is an exemplary modality of heroic play – it is collaborative heroism in action, in which both the fundraisers and contributors collaborate in an online environment to make a positive change in and transform their local community. Klisanin (2015, 14) argues that “[c]ontemporary expressions of heroic behavior are manifesting in a collaborative form—seamlessly bridging the online and offline worlds.” Doug’s heroic participation with technologies is a prime example of collaborative heroic play that is both engaged with the online environment (through the website Everyday Hero, Doug’s smartphone or laptop at home or on the move, email communication with his network and social media, the playful monitoring of the website to tally up the donations made so far) and offline environment (a scenic bike ride across Western Australia with other supporters of the cause and caring everyday citizens), toward making a positive contribution to the lives of disabled and disadvantaged youth. In this sense, Doug embodies the cyberhero archetype by way of his Everyday Hero profile. Notably, any risk associated with this act of collaborative heroism is mitigated by the playfulness of the activity online and the physical world.

Stephanie is a lecturer in computer science and a doctoral student in Adelaide. She is part of a close-knit network of scholars and uses her social media accounts, namely Twitter and Facebook, to share interesting and useful information with her colleagues from around the world. Stephanie is conscious about the use of social media, especially Facebook, becoming a dumbed-down form of communication because of “critical mass.” She champions the use of social media as a means to defend important causes. She notes, for example, that Twitter is becoming “a good forum for mockery as a political weapon … Mockery is key … when people are doing politically outrageous stunts.” Stephanie uses her Twitter account to inspire and educate herself and her international network on current affairs and social issues, for example when “things go wrong with a marginalised [people], or people who are … just not reported in the mainstream, in the white peoples’ mainstream media." This reflects the epistemic – through the sharing of educational and informative material – and energizing – by inspiring social and global awareness and action – functions of heroic leadership (Allison and Goethals 2014, 2015). She creatively manages the content of her various lists on her Twitter profile, once again demonstrating cyberheroism as creative content sharing and storytelling. As we will see, this creative and mindful use of her Twitter cyberhero archetype may have been one of the catalysts for fostering her heroic imagination, priming her “to take action if and when the time comes” (Blau, Franco, and Zimbardo 2009, 3).
In a poignant example of her use of Twitter as a vehicle to not only educate herself and her network, but to speak out against injustice, she accounts an instance of using Twitter in defence of her friend and colleague, a humanities scholar in England, who was ‘trolled’ by a famous scientist on Twitter. Stephanie saw this as a blatant attack against “postmodernist thinkers.” She admits being deeply offended and angered by this event, and could not simply stand by and watch it unfold. During this period she showed her support by re-tweeting a number of conversation strings between her friend and the scientist. More importantly, she sees such attacks as intolerance of intellectual diversity in academia, and ignorance of the hero’s journey many scholars have faced from all walks of academic life: “how do you get to be so advanced in your field, without looking at people, in that field, and realising they’ve had the same arduous journey as thinkers. How do you not acknowledge [this]?” she comments bemused.

This is an interesting case study of collaborative heroism in respect of the presence of risk or suffering – it suggests that simply having a Twitter account and putting one’s ideas out there is risky business in and of itself. This is especially the case for public or intellectual figures, or those with a great number of followers, who are at greater risk of personal attacks and harmful comments. Stephanie’s heroic leadership in stamping out Twitter trolling and defence of her friend is a negotiation of heroic meaning and a prime example of a Twitter profile as an embodiment of a cyberhero archetype – in this sense, through her regular critical and dialogic engagement with the communicative act in the social media space of Twitter, Stephanie is actively and mindfully participating in heroic play as a conscientious and altruistic form of content and meaning making, resulting in the generation of everyday heroic social media spaces.

Another Adelaide participant, Stacy, is a further example of these early stages of engagement with cyberheroism. Stacy is a limited technology user – but a mindful one. An academic editor, Stacy is a supporter of environmental causes. She published a book on her thesis based on alternative agrifood movements in community gardens, demonstrating the conflation of creativity, the heroic imagination and noble causes. She comments: “I feel, things like, television shows, especially for very young children can kind of fill up their imaginations in a way that things like books and engagement with nature and engagement with people and the community don’t do.” She encourages and fosters the use of mindful play, creative leadership and “self-directed interest” with technologies in her 8-year-old son Luke. Stacy laments on the lack of quality communication on Facebook, and the profile she has set up recently. Although she is not a fan of social networking, Stacy regularly contributes to blogs or community organisations and follows a select group of bloggers whose values align with the definition of collaborative heroism offered by Klisanin (2015), in taking collective responsibility for the stewardship of the environment. Two in particular fit the profile; the first is a blog associated with an urban farm, and the other on a project to restore a piece of land.

Patrice has also engaged in Internet activism on a regular basis in the past two years; she has signed Amnesty International petitions, with a special focus on third world, human, children’s and women’s rights. When asked if through using the Internet in these small ways to help others she feels she is making any difference, Patrice remarks affirmatively that she certainly hopes they are:
It’s sending it to a government body, or the political leader of that country … it’s bringing awareness that there’s people outside that area that are against what they are doing … who do not condone their behaviour and they are petitioning against it.

She receives email alerts when a petition for a cause comes up that matches these areas which she is most passionate about. She follows blogs such as “grateful in april” on the website of the m.a.d.woman foundation, which is dedicated to helping Australia’s most vulnerable and needy individuals. Patrice shares the uplifting monthly blog content with her contacts through email. At work, she helps motivate the younger staff who feel pessimistic about their career advancement in their small organisation by sending them informational online content, such as the Forbes questionnaire on what they want to do with their life to help them hone in on their career passion. Through these small acts of everyday online kindness and digital activism Patrice feels “a sense of worldwide community,” affirmative of Klisanin's (in press, 1) definition of collaborative heroism as centred in a “planetary consciousness.”

Simone is a 21-year-old gamer from Perth. Her gaming experiences reveal important insights into the gendered aspects of the online gaming community, and how a digital avatar can transform into a cyberhero archetype to combat online sexism and gender discrimination. Simone finds multiplayer games quite “stressful” – as a female gamer she has experienced discrimination when she has revealed her gender to other players. “I have been treated ‘special’ because I’m a girl, but also where I’ve been criticized because I’m a girl,” she says. She adds: “I’d be overpraised when I did things right and ‘babied’ for things I did wrong.” Simone admits how difficult being a female gamer is: “it feels really weird to have to justify that the reason I’m playing badly in a game is not in fact because of my gender but just coz I’m playing like crap.” On the opposite end of the spectrum she observes: “I have found that in games where I have played exceptionally better people are very uncomfortable with losing to a girl.” She plays Call of Duty and League of Legends online frequently, which are overwhelmingly male dominated games. She notes that her friend Tye tries to talk about her “in gender neutral terms” for that reason, especially in an online environment where “everyone just assumes you are a guy.” Her avatar, in that context, becomes sexualised.

Simone notes that in most games she tends to not reveal her gender. However, this changes when sexist and discriminatory comments are specifically being made against women during gameplay. Simone will break her gender silence in those situations, immediately identifying herself as a female and addressing the derogatory comment. When she was part of a group of online gamers in League of Legends she set rules for game-appropriate behaviour and etiquette by not allowing sexist and homophobic terms during gameplay, such as “fag” or “faggot,” “slut,” “rape” and “don’t act like such a girl” (in this extreme example, the term female itself becomes derogatory), regardless of how irritating they found it initially. This course of digital activism stamped out the group’s habits as they gradually swapped these for more gender-neutral terms – this becomes in some respects a form of collaborative heroism practiced over regular periods. It inspires and encourages other like-minded players to grant support to Simone and her team’s stance, although she admits it is not common.

Simone’s in-game character or avatar gives her the freedom to stand up for gender rights in gaming, leading the way in changing ingrained discriminatory practices in a very specific context, reflecting the importance of the situational aspect of everyday heroism. This example
of heroic play involves all the necessary ingredients of play in “uncertainty,” “the use of personal strategy,” and power (Andersen 1994, 82-84) – Simone’s League of Legends cyberheroism turns the powerlessness of the female gamer avatar into a ‘superpower,’ by using it as a positive force to ameliorate a situational and broader social injustice, and effect positive change in the online gaming community.

This particular example of collaborative heroism reveals the presence of risk in online gaming – when directly asked if Simone regards the use of her cyberhero archetype and stance against gender discrimination as risky, she adamantly responds “yeah, all the time.” Simone describes herself as a “social justice warrior,” although she notes the negative connotations associated with self-identifying as such and the risks associated with it:

I think it’s important to stand up, because it can be quite scary to stand up, when you’re in the minority … and I think a lot of women are intimidated by the backlash; I think anyone would be, to speak up and just be attacked by every single person around you … I think it’s important enough that it’s worth it.

Simone comments that it takes a certain amount of resilience to take on that role over an extended period of time. Resilience is a core attribute of heroism (Allison and Goethals 2011). She explains:

I’ve had (male) friends who have stopped thinking of me in the same way … I do feel like it’s risky because a lot of the time, if you start speaking up about that you’ll be labelled as a feminist, which is a really bad thing where male games especially are concerned. They have that stereotype of feminists in their head where they’re dirty, ugly women, who hate men … that we already have equal rights … and feminists just want women to be the superior gender and they won’t stop until they are.

Identifying as a bisexual female, for example, Simone recalls how personally hurtful it felt when she has been called a “faggot,” something that would be used against her in-game if she made this public. She comments: “men don’t say to other men gender specific insults … I get the ‘bitches,’ and the ‘slut,’ and the ‘whore’ and that kind of stuff.” Support of her activism is rare, and being “ganged up on by multiple people” is the norm.

By voicing her opinion and actively using her avatar as a means to stamp out these biases Simone takes a great personal risk by irreversibly changing the nature of her relationships and interactions, which can come at a cost of ending friendships. She notes how a conversation with another friend made her realise that if standing up for what are “basic rights” causes her to lose a friendship then she should not be friends with them in the first place. As such, even though she feels like she is exposing herself to criticism, mockery and ignorance, she has voluntarily and actively continued to stand up for what she believes in for the past three years to effect a positive change in gaming culture, regardless of the risk involved – the very definition of everyday heroism (Franco, Blau, and Zimbardo 2011). Simone’s creative and playful engagement with technologies reveals the specific use of hero archetypes and fantasy style play to re-imagine and re-invent the self, and build life resilience.
There is one interesting departure of note from Franco, Blau and Zimbardo’s (2011, 101) definition of heroism and Simone’s cyberhero archetype; once again, the playful aspect subverts the condition of no “external gain anticipated at the time of the act.” In *League of Legends* a player can obtain four badges of honour, which reflect heroic attributes and noble goals in the avatar’s moral character, including “helpfulness,” “honourable opponent,” “good team-mate” and “friendliness.” Clearly, her online activism against gender discrimination is done wilfully and for its own reward; however, the playfulness of her engagement introduces the incentive of in-game trophies and accolades as part of the online heroic universe.

Our participants’ stories in this section support the view that games, social media and the Internet are creative spaces that make us better. They encourage us to take our own personal quest that helps us grow and become more skilled at resolving important personal and social issues in creative and transformative ways.

**Conclusion**

Participant accounts presented in this article indicate that everyday Australians are, to a certain extent, creatively using technologies to re-imagine and re-invent themselves and their environments, both online and offline. Insights garnered from this article are obviously drawn from a limited number of participants; further directed and systematic research will need to be conducted to determine how widespread these practices are. Nonetheless, these are emerging examples of how people are beginning to embody the cyberhero archetype in their everyday lives, through the very tactile, strategic and imaginative use of their personal devices. The heroic imagination is a skill that can be cultivated over time. The socially and morally conscious property of the heroic imagination appears to be more pronounced in its collaborative modalities. Heroic forms of play can be conducted in both a collaborative and a highly personalised mode; Patrice’s sharing of her *Pinterest* boards, for example, can raise awareness of the beauty of nature, art and an eco-friendly lifestyle in heroic collaborative mode on the one hand, as well as a stylised and self-affirming vision board and library of ideas on the other.

Heroic play is not necessarily altruistic, socially conscious and risky due to the subversiveness of its playful aspects, as discussed. But the connecting rod of these heroic modalities is that they are transformative – in all expressions of heroic play the user-as-creative-practitioner and heroic leader creatively asserts and crafts her identity, whilst educating, inspiring and energizing herself and others, producing transformations of consciousness and a self-awareness as a human being in a larger network.

Based on the emerging literature and the ethnographic data, we can surmise that the requirements for the heroic use of technologies are: strategic and volitional decision-making, intentionality, critical and reflexive thinking, social and planetary consciousness, originality and creativity, a degree of risk or departure from the psychic safety of play, and resilience. At its height, heroic play incorporates all the above properties. Heroic players are active heroic content and meaning makers in the locative, social and mobile spaces they move within, in and out of the home.

The diffusion of play, technologies and heroism in everyday lived experience showcases these as examples of specific situations in which our participants have engaged in heroic playful
participation in their mediums of choice, either intermittently or continuously over prolonged periods of time, and for a variety of motivations. The context of their heroic play drives the expressions of their heroic activity, resulting in the engagement with a specific interface as a “situational factor” (Klisanin 2015, 14). This makes these heroic modalities connected forms of creative collaborative action in their inherent nobility, yet distinct at the same time.

Ethnographies explored reveal how our engagement with technologies is creating novel opportunities for individual and collective heroic participation. Everyday spaces become situational opportunities for us to mindfully engage with our devices, our social media profiles, the Internet and the games we play, in ways that advance a heroic mindset. The playfulness of these activities can make facing the risk associated with the act of cyberheroism easier, if we choose to not reveal our true identity for example, yet in other ways can be just as hurtful and detrimental as negative physical interactions. Regardless, practicing heroic leadership in playful, creative and mindful modes of attention can make our engagement with technologies a heightened, richer and more fulfilling experience.

If enacted with enough rigour and frequency in daily routines these practices could become ritualistic and habitual, resulting in the banality of heroic play (a play on words on Franco and Zimbardo’s 2006 “banality of heroism” postulate). The domestic space is momentarily transformed into a heroic space through these intentional and very specific interactions, forming a new kind of hybrid space. This is not only determined by the physical/digital, but the everyday/heroic, real/imagined, risky/playful, socially-conscious/self-conscious. Heroic play is the ‘heroification’ of playful participation.

Acknowledgments

This article has been prepared using data from The Game of Being Mobile, the first Australian study to examine the social uses of mobile gaming, funded by an Australian Research Council Discovery grant (DP140104295). Through ethnographic methods over three years, The Game of Being Mobile explores how mobile game consumption is reflecting, and being shaped by, complex social and technological practices integral to contemporary life. It is led by Chief Investigators Professor Larissa Hjorth, RMIT University, and Associate Professor Ingrid Richardson, Murdoch University.

---

Though not all: see Allison and Goethals 2011, 2014, in press.

See Appendix 1.
References


Appendix 1: Cyberhero Questionnaire (Klisanin 2012)

1) I believe my life is interconnected with all the life forms on our planet.

2) I enjoy acting on behalf of people in need regardless of their age, race, ethnicity, religion, or gender.

3) I have engaged in the following forms of Internet Activism:

[ ] Created or Signed Digital Petitions.
[ ] Clicked-to-donate.
[ ] Answered questions that resulted in a donation to a Cause or Charity.
[ ] Played games that resulted in a donation to a Cause or Charity.
[ ] Used Search Engines that donate a portion of revenue to a Cause or Charity.
[ ] Shopped at Websites that donate a portion of revenue to a Cause or Charity.
[ ] Posted something positive, or uplifting, on-line about other people, companies, institutions, or charitable organizations.
[ ] Posted informational content on-line for the purpose of helping others.
[ ] Used the Internet, or mobile phone to donate to a Cause or Charity.

4) I use the Internet to act on behalf of more than one “cause” or “charity”.

5) I do not think the needs of other people are as important as my own needs.

6) Through using the Internet to help others, I am contributing to conditions that promote peace in the world.

7) When I click-to-donate, or sign on-line petitions, I feel a sense of unity with all the other people who engage in these activities.

8) “Clicking-to-donate” cannot have a significant impact on a cause, even if a lot of people click each day.

9) The Internet does not enable me to help others more than I could without it.

10) I am being pro-active when I use the Internet to support the needs of other people, animals, or the environment.

11) Will you please share the main reason(s) you engage in digital activism?

12) Will you please share your age range?

13) Will you please share your gender?

14) Will you share your race?

15) What country are you from?
Summary and Link to Next Chapter

Chapter 5, “Heroic Play: Heroism in Mindful, Creative and Playful Participation” has offered additional insights into the value of life story and personal testimonies in the study of heroism.

Chapter 6, “Creative Careers: A Heroic Leadership Perspective” further supports the value of story and metaphor discussed so far, and in particular their role outlined in Chapter 4 in promoting wellbeing, a better society, improved mental health and now possibly a stronger career. The idea of what energizes a graduate is of particular interest in the field of employability. A pivotal piece of the hero’s journey is the element of self-discovery, and in particular the discovery of one’s calling, one’s missing qualities (or deficits), and one’s strengths. In keeping with the approach of the thesis, Chapter 6 embraces lived experience and life stories as an effective methodology by which to assess heroism.
Chapter 6: Creative Careers: A Heroic Leadership Perspective

Attribution

OE developed the concept, reviewed the literature, critically reviewed and analysed the data as Coder 1, and wrote and revised the manuscript. DB assisted with the development of the concept, and critically revised and contributed to the write-up of the manuscript in respect of career identity. SA critically reviewed and analysed the data as Coder 2, and critically revised and contributed to the write-up of the manuscript in respect of the hero’s journey. All authors critically reviewed and approved the final version.

OE: 60%

I certify that the candidate’s personal share in the investigation stated above is true and correct.

.................................................
Ingrid Richardson (Principal Supervisor)
Creative Careers: A Heroic Leadership Perspective

Olivia Efthimiou
Murdoch University

Dawn Bennett
Curtin University

Scott T. Allison
University of Richmond

Correspondence concerning this article should be addressed to Olivia Efthimiou, School of Arts, Murdoch University, South Street Campus, Perth, Western Australia. E-mail: oliviaefi@gmail.com.
Creative Careers: A Heroic Leadership Perspective

Abstract

This article explores how viewing the career journey as a lifelong hero’s journey metaphor relates to the presence of risk and transformation in graduate careers, with a special focus on employability in the creative workforce. Qualitative responses from a cohort of Australian creative workers reveal alignment of the creative artist’s career journey with the hero’s journey, and with associated themes of suffering, dedication, rites of passage and the transrational. Three types of heroic leadership are identified as essential to employability success: psychospiritual, social and physical. These are explored across the epistemic, energizing and ecological functions of heroic leadership, as seen in the life stories told by the creative workers and in their reports of three formative career/personal events. Dominant descriptors of heroic leadership are inspiration, paradox, metaphor, the transrational, lifelong learning and wisdom gaining. The article concludes that heroic leadership is beneficial for equipping creative workers – and potentially other graduates and job seekers – with the resources to better manage the increasingly precarious 21st century labour market. Future directions for research to advance knowledge of career identity and heroic leadership are discussed.

Keywords: hero’s journey, career identity, graduate employability, risk, wellbeing, arts, story, metaphor, heroism, resilience, sustainable practice
Creative Careers: A Heroic Leadership Perspective

Introduction

This is the first of a series of articles that explore heroic leadership in relation to contemporary career identities. The article aims to illustrate that the development of a heroic leadership profile is an important attribute for optimising wellbeing, satisfaction and the ability to cope with lifelong career challenges. Here, we look at shaping the career identities and experiences of creative workers: a crucial area of research given the transience and harsh realities of creative industries careers (Bennett, 2012; Reid, Bennett & Petocz, 2016). The creative workforce data highlight the importance of the heroic mindset in the evolution of career identity. Conclusions drawn from music and the arts are also highly relevant to other professions; thus, the insights on heroic leadership offer a glimpse of its functions and consequences in other industries and settings.

The article is organised into four sections. First, we outline key emerging research in the space of career identity, the hero’s journey and heroic leadership; the psychological, social and physical aspects of heroic leadership for creative careers are outlined, highlighting their value for employability success and their associated epistemic, energizing and ecological benefits. Next, we explore the presence of these heroic leadership traits in creative workers’ experiences since graduation – namely, inspiration, paradox, the transrational, metaphor and wisdom. We then embark on an exploration of the artist’s heroic career journey, drawing on specific examples from qualitative responses of graduate creative workers. These reveal the transformational value of risk, adversity and heroic leadership for career identity. We conclude with suggested avenues for future research and propose that infusing a heroic sensibility in career identity might better prepare aspiring creative workers for their practice.
The research seeks to demonstrate the interdisciplinary value of heroism and career studies as aspects that are inextricably intertwined with all facets of our lives, and to reveal the complexity of career decision-making for individuals, families and societies alike.

**Emerging Research: Career Identity and Heroic Leadership**

Following Skorikov and Vondracek’s (1998) discussions of Erikson’s (1968) identity development theory, career identity is defined here as the alignment of career with individual motivations, interests and competencies. Career identity thus defined is emerging as a critical and under-addressed aspect of contemporary work, largely because its development is increasingly challenging. The reason for this lies in heightened precarity across the labour market, which has resulted in more workers becoming responsible for their individual career development and management across multiple concurrent roles. These are commonly obtained or created through formal and informal networks and they impact workers at the level of firm, sector and industry (Lippmann, 2008).

Increased precarity also prompts workers to transition, in part or whole, to roles that do not align with their vocational training. In cases of enforced transition, few workers can be defined as the “shifters” who do not have a strong career identity, as described by Simosi, Rousseau and Daskalaki (2015). Rather, they are forced *in spite* of their career identity to explore the labour market and transit between jobs, companies or sectors, or to change careers altogether. The impacts of this are felt at the individual, familial and social levels that are beyond the reach of agency (Wilson & Ebert, 2013).

When work is unstable, workers need to practise self-efficacy (belief in their abilities), professional self-concept (understanding their professional selves) and self-regulation (the ability to regulate their activities and decisions). In describing this process of self-development, we draw from current theory and research on posttraumatic growth.
(Tedeschi & Calhoun, 2004). In developing self-efficacy, workers become responsible for their work and learning, including the negotiation of their career transitions and the ways in which these transitions impact their identity. In this context, career identity development and (re)negotiation occurs across the career lifespan. It is this that prompted us to consider it in the light of the heroic journey.

Developed by comparative mythologist Joseph Campbell in 1949, the hero’s journey model details the discreet stages that a hero undergoes in order to achieve hero status. The heroic journey commences with a call to adventure (which can be heeded or denied initially) demanding a physical and emotional departure from the protagonist’s reality. An initiation into an extra-ordinary and unknown world ensues, followed by rites of passage, the discovery of a boon and the return to the ordinary world, resulting in a deep personal transformation. Today, the hero’s journey model is widely used in the development of scripts in cinema and television, and it is extensively referenced in popular culture. It is also used as a counseling and pedagogical tool to teach the moral value of narrative, hero tales and the heroic process of inquiry (for examples see: Brown & Moffett, 1999; Holmes, 2007; Krippner & Feinstein, 2006).

Contemporary scholars are beginning to assess modern career experiences as heroic experiences. In their overview of career development as a context for heroism, for example, Dik, Shimizu and O’Connor (2017, p. 334) conclude that “perhaps anyone can come to express heroic traits and engage in heroic acts within their chosen profession, even if quietly, in largely unsung ways.” The hero’s journey is now being conceptualized as a discrete form of socialization in professional development. Seen here, Randles (2012, p. 11) applies the hero’s journey model to music teacher socialization:
The process of ritual, following the general theme of separation–initiation–return, where the protagonist leaves the ordinary world to enter the special world where adventure happens, followed by a return to the ordinary world in an altered—changed—state, is proposed to be akin to the struggles of the apprentice teacher.

Ultimately, the value of the hero’s journey and its application to career identity lies in the recognition of the career journey as a lifelong fluid process of growth and transformation. When people embark on the hero’s journey, they “undergo a truly heroic transformation of consciousness,” requiring them “to think a different way” (Campbell, 1988, p. 155). This shift provides a new “map or picture” of oneself and one’s destiny (Campbell, 1991, p. 56). In this context, Campbell (2004, p. 12) describes the journey’s purpose as a much-needed voyage designed to “wake you up.” For workers negotiating careers characterised by complexity and precarious work, this “waking up” is a necessity across the career lifespan.

Scholars have noted the striking parallel between the stages of human lifespan development and the stages of the hero’s journey (Allison & Goethals, 2017; Allison & Smith, 2015; Efthimiou, 2017). Psychological theories of human growth and development emphasize stages of identity formation, crisis resolution, moral advancement, social growth and generative service to others (Erikson, 1980; Jung, 1970; Kohlberg, 1969; Rohr, 2011). These same stages lie at the center of Campbell’s (1949) treatment of the hero’s journey, which features transformative growth along moral, mental, emotional, spiritual and professional dimensions. The hero’s journey is the human journey (Allison & Goethals, 2014; Efthimiou & Allison, in press).

**Heroic Leadership**

The concept of heroic leadership is premised on the notion that “we are all developmentally equipped to pursue a lifelong hero-like journey” (Allison & Goethals, 2014,
p. 175). Heroism is emerging as an important precursor to wellbeing. Significantly, “thinking about a hero (relative to a leader or an acquaintance) during psychological threat fulfil[s] personal enhancement, moral modeling, and protection needs” (Kinsella, Ritchie & Igou, 2015, p. 1). Thus, a heroically informed and led career path stands to play an important protective role in minimizing the uncertainty and precariousness of the 21st century labour market, making the individual mentally, physically, socially and morally career ready.

   Heroic leadership is defined as a dynamic and temporal process that incorporates “various mechanisms underlying personal growth and developmental health,” as “the psychology of heroism unfolds over time” (Allison & Goethals, 2014, pp. 177, 180). This type of leadership serves three functions:

   **Epistemic:** the knowledge and wisdom imparted by hero stories. Hero stories and their accompanying metaphors reveal deep truths, paradox and develop emotional intelligence, resulting in wisdom gaining as their core impact (Allison & Goethals, 2014).

   **Energizing:** the ways that hero stories inspire us and promote personal growth. Hero stories heal our psychic wounds and inspire us to action (Allison & Goethals, 2014).

   **Ecological:** this function recognizes the hero-actor, her agency and decision-making ability as embedded within larger environmental structures in which the agent and environment are mutually informed. It recognizes that the complex familial, social, intrapersonal, interpersonal and other relationships dynamically regulate the opportunities for trauma and growth, crisis and order, to achieve whole-of-life balance. The individual and her potential are therefore always bound to both social and non-social situational contexts (Efthimiou, 2017).
According to Kinsella, Ritchie and Igou (2012), heroism is “universal and understood to provide important physical, psychological, and social benefits to people.” As such, heroic leadership (rather than simply leadership) across the psychological, social and physical arenas of wellbeing stands to be vital to career identity and the development of self-efficacy and self-regulation. This is especially important for workers such as those in the creative industries, who are likely to encounter a high degree of risk and uncertainty across their lifelong career journey. We next explore the three functions of heroic leadership in relationship to the leadership dimensions.

**Psychological heroic leadership.** The development of the psychospiritual aspect of heroic leadership is vital to career identity agency. Increased self-reflection and self-awareness are key to growing as a creative worker and as a heroic leader, and to a heroic career orientation (Du Toit & Coetzee, 2012; Lois, 1999; Osland, 2000; Robledo & Batle, 2015; Simpson & Coombes, 2001). Key properties of everyday heroism include exercising mindfulness in all situations in order to take appropriate action, and maintaining awareness of “an extended time-horizon, not just the present moment” (Franco & Zimbardo, 2006, p. 34). The capacity to be conscious of pivotal moments is essential to the ability to recognise one’s transformative epistemic and energizing value, and utilising them as developmental tools for cultivating the emotional intelligence that drives career identity.

Self-awareness about one’s growth is also a central component of the phenomenon of posttraumatic growth (Tedeschi & Calhoun, 1996). Rowley and Munday (2014) describe this as a growth mindset: fluid identity as a process of integration and formation that ignores the constraints and expectations of discipline, market sector or traditional ways of working. To overcome trauma and grow from it requires people to gain an understanding of events they can control, resources they can utilise, people who can help them, and strategies for overcoming adversity. In short, the process of becoming conscious of how one heals from
trauma bears a striking resemblance to the stages of “awakening” to the hero’s journey (Allison, 2015).

As a central aspect of heroic leadership, metaphor represents a tool for advancing emotional intelligence. Scholars and practitioners across disciplines utilize metaphors to promote wellbeing, societal change, improved mental health and stronger career decision-making (Inkson, 2004). A recent study revealed that over 80% of educators used metaphors in drawings or textual accounts of the role of a musician, whilst higher education students tended towards literal drawings of musicians at work (Bennett, 2015). Some of the most common and persistent motifs in the responses included:

- ladders (as a metaphor for climbing or falling down);
- trees (often aligned with a career progression, at times drawn with a ladder);
- heads (indicating the complex thought required to imagine and realize career goals);
- juggling (as a metaphor for managing multiple responsibilities);
- building (as a metaphor for creating a career); and
- boxes or squares (as a metaphor for thinking outside the box).

Metaphors such as these underscore the transformative nature of the hero’s journey during the process of developing and redefining career identity. A central characteristic of all transformation, as illuminated by these metaphors, is that the individual moves from one qualitative state of development to another in accordance with the hero’s changing needs, motives and drives (Allison & Goethals, 2014, 2017). Although not as frequently used, superhero metaphors are also present in this data (e.g. “Batman on the trombone”), demonstrating the importance of “social utility value” or societal contribution and impact (Watt et al., 2012) on career decision-making (Bennett, 2015).
The capacity to develop advanced self-reflection by exercising heroic leadership is also associated with the transrational themes present in hero stories; according to Allison and Goethals (2014, p. 170), “[e]xamples of transrational experiences that routinely appear in hero stories include suffering, sacrifice, meaning, love, paradox, mystery, God, and eternity.” Indeed, Robledo and Batle (2015, p. 11) conclude that the “spiritual dimension seemed the one with more potential for transformation” in their workforce study. Developing heroic leadership as part of a healthy career identity necessitates the appreciation of the importance of complex life themes that defy logic and have a deeply spiritual significance (Allison & Goethals, 2014).

Dik et al. (2017) use the metaphor of career search as “a calling” with a neoclassical link to the historic usage of the term that emphasizes a sense of destiny and prosocial duty. In this sense, a search for career identity is a transcendent summons from beyond, or from some untapped inner resource that contains the key to succeeding on one’s heroic journey. The capacity for reflective and abstract thinking emerges as a key quality for the development of heroic leadership and a successful lifelong career journey. It is essential to becoming conscious of one’s calling, seeking it out, defining success, and negotiating the actions required to succeed.

Recent research affirms that transrational themes appear prominently in creative practice. Examples from student and educator musician drawings include: “[t]ime, suffering and joy,” “[a musician] listens with the heart,” “[e]xpressing different dimensions and forms of being,” and “[a] musician is someone that besides having theoretic knowledge is also worried about the way in which he can touch people [with his music].” The symbol of a heart or multiple hearts and the words “love,” “happiness” and “passion” are common features in visual and narrative representations of the musician (Bennett, 2015). These transrational themes are consistent with data recently collected by Allison and Efthimiou (2016) who
analyzed song lyrics in the 50 greatest songs of all-time as reported by *The Rolling Stone* and *Billboard*. Transrational phenomena appeared in all 50 of these songs’ lyrics, with the themes of *suffering, love* and *eternity* appearing most frequently. This finding supports the idea that songwriting careers help fulfill writers’ hero journeys; both sources inform identity development and the mythologized nature of music work.

Further, the natural epistemic driver of heroic leadership toward revealing and managing paradox is particularly important; researchers including Goldstein (2005) and Osland (2000) have identified inherent paradoxes within career identity development as a hero’s developmental journey in specific professions. Wade (1998, pp. 717, 718), for example, cites “conflicting meaning schemes” and “disorienting dilemma[s]” in identity formation as a core aspect of the transformation process in professional contexts such as nursing. In perhaps the strongest example of the value of paradox, Allison and Goethals (2014, p. 172) note that “every human being encounters painful challenges in life … [these] are an integral part of our own individual hero journeys … Hero stories teach us that only by confronting our dragons can we sow the seeds of our redemption.” It follows that developing heroic leadership alongside career decision-making will aide workers’ management of inherent paradoxes over a lifelong career journey.

**Social heroic leadership.** The ability to be proactive and create one’s own work or be creative in job-seeking behaviors is imperative, denoting that the heroic entrepreneurial spirit is critical to employability success (Schein, 1990). Indeed, as foregrounded, being inspired and the ability to in turn inspire others is a crucial property of the energizing function of heroic leadership. This further intersects with the ecological function of heroic leadership, in the form of both formal and informal networking. The ecological function refers to the dynamic formation of our identity within all the systems of which we are a part: social, familial, cultural, political, religious and so forth.
Job seekers need to understand competition and the environment, not just in the workplace but in the locale in which they will be working. This aspect of heroic leadership is crucial for every worker, particularly when work involves multiple concurrent roles, sites of work and employer relationships. Goldstein’s (2005, p. 21) exploration of pre-service teacher education experiences supports this important two-fold function of the hero’s journey metaphor in that “it simultaneously offers support to each individual and offers means for the creation of a network of personal and professional connection with the cohort group.”

Ultimately, ongoing development in our personal, relational, professional and community networks is essential to a healthy workforce and career identity (Watson, 2009). Similarly, learning across the lifespan is central to the epistemic function of heroic leadership. The acquisition of knowledge that helps workers to cope with crisis, stress, moral dilemmas, complex and challenging situations, and more effectively manage emotions and relationships, is a crucial feature of a heroic leadership profile – one that stands to be of particular benefit to career identity and wellbeing. This includes lifelong or life-wide learning motivated not simply for career advancement and monetary benefits, but by an intrinsic desire to learn and contribute to the world. This represents the value of all three functions of heroic leadership.

**Physical heroic leadership.** The development of physiological preparedness is equally vital to the psychosocial. Many creative workers in the performative arts endure injury. Moreover, injuries are observed at early stages of development including post-secondary study (Ackermann, Adams & Marshall, 2002; Lee, 2015). This is particularly problematic given the culture of non-disclosure of injuries (Quarrier, 1993) and the inability of many workers to access worker’s compensation and other benefits (Hennekam & Bennett, 2017). This reveals the critical importance of developing embodied heroic leadership (Ladkin, 2008) in concert with the heroic.
Heroic leadership’s epistemic function not only refers to the emotional intelligence imparted by heroic leadership, but the physical intelligence (Efthimiou, 2017). The energizing function denotes the self-healing capacity of heroic leadership to mend both psychic and physical traumas (Allison & Goethals, 2014; Efthimiou, 2017). Creative workers must develop an acute embodied awareness and physical intelligence; being conscious of one’s body, its potential and limits, as well as an awareness of how interaction with the surrounding environment and objects can affect us, is critical to developing appropriate self-care strategies and minimizing the risk of harm in injuries that can place one’s career on hold. This addresses the need for creative workers to “reorient their learning through the creative exploration of possible future lives … [and] create ‘expert selves’ that are sustainable over the career lifespan” (Bennett, 2013, p. 234).

**Heroic Leadership, Career Identity and Creative Practice**

This section draws on qualitative responses from creative workers, collected as part of the Creative Workforce Initiative (CWI) across universities in Australia and overseas. This project was interdisciplinary in scope and involved creative workers, psychologists and social scientists in data collection and analysis. Its aim was to assess what makes creative workers successful and employable, by capturing their intricate and diverse experiences through the use of mixed methods.

**Procedure**

**Recruitment and sample.** Once ethical approvals were in place, creative industries practitioners in Perth, Western Australia, were recruited using respondent-driven sampling administered through creative industries networks, including industry press, local media and industry associations. To reduce bias, sampling involved multiple initial sources. The sample included 183 practitioners from across the creative industries. Respondents were aged from
18-80; 60% were female. The largest representation was from visual artists (13%), followed by writers (11%) and musicians (8%).

**Instrument.** Industry participants responded to a lengthy survey (58 questions) that requested closed and open-ended responses and included repeated items for the purposes of triangulation, validity and reliability. The survey addressed the characteristics of work including all paid and unpaid work, motivation and self-identity, the distribution of committed time, formal and informal learning, and demographic information.

Importantly, *story* was an integral part of the data collected from creative workers, therefore making it an ideal platform to explore the heroic within these narratives, given the centrality of story to heroic leadership. A central aim of the creative workforce survey was to gather stories about the impact and value of the arts within the community, and about the wide-ranging skills, knowledge and activities of artists. In the final part of the survey, respondents were asked to describe a story they might have to share either in writing, in person or by phone. Stories were recorded in text, pictures or sound, or with links to current projects.

**Analysis.** Analysis was initially inductive and involved two coders who coded independently and then conferred to reach consensus. For the purposes of this article, open-ended responses, responses to three core formative events, and shared life stories were reviewed through the heroic leadership framework and its three core functions outlined in the previous section. This revealed the presence or absence of heroic leadership skills. The final phases of analysis involved all three authors, who analysed deductively using the heroic leadership framework. Findings were triangulated to identify areas of convergence and divergence, and to identify the most persistent themes.

Below, we outline the key areas in which the importance of heroic leadership awareness and practice, and its functions, are evidenced in the data.
Inspiration

Data from Australian creative workers clearly demonstrated the centrality of inspiration and identity to employability and long-term success in the creative industries. Sheila, a poet, recalled being “inspired to write” after “[r]eading Sylvia Plath and Gwen Harwood’s poetry.” She positioned this as the second most formative event in her career, and noted inspiration as a core function of the “[i]mpact and value of the arts within the community.” Joe, a musician, noted “a fabulous and inspirational percussion teacher … at university” as one of three formative events in his career. In a similar vein, Sasha, a choreographer and dance artist, recorded her most formative experience as: “[p]erforming in Germany as a tertiary dance student, with students from Taipei and New York. A sense of possibility, of global connectedness and the power of dance to cross cultural divides excited and inspired me.” Other artists reported being inspired by nature, or by transrational phenomena such as “the unknown,” denoting a link between inspiration and the transrational.

Paradox

Reid et al. (2016) identified that the characteristics of work for these creative workers could be understood only by taking into account identity representation, motivation, catalysts of creativity, interaction with society and external recognition. In terms of managing the discord between career realities and expectations and how this shapes creative identities, the authors note: “The point at which creative purpose meets economic purpose helps to shape individual preferences and motivations, and this point is likely to change according to personal, social, and economic circumstances” (Reid et al., 2016, p. 40). This suggests a learned ability to manage inherent paradox in the heroic career journey.

When asked to consider how his arts career relates to the career he imagined when he undertook his training Shane, a music teacher, recalled how navigating paradox was an
integral part of his journey: “Very closely for the first 10 years, then diverged, but same core activity, although in different situation, and branched out into performance. Totally unexpected.” These twists and turns are especially typical of a portfolio or protean career journey for creative workers; learning to manage what can be often diverse professional identities under a coherent career goal is an essential skill for success in the creative industries (Hall, 1976).

Tellingly, the respondents revealed disparity between the time spent on creative work and their identities as creative workers: for example, a respondent who identified as a sculptor but worked as a full-time bank employee. Of the 176 respondents who identified as creative workers, only 10% earned above the national average income purely through their specialist arts work (Bennett, Coffey, Fitzgerald, Petocz & Rainnie, 2014). The presence of complex patterns of work was reported throughout the artistic or creative life cycle and across creative disciplines, meaning that as Bain (2005, p. 29) explains, creative workers need “to exaggerate and exploit their individuality and to feed into popular myths to reinforce their occupational authenticity.” In this setting, individual narratives may extend beyond measures such as time to consider product, occupational and social prestige, and the position of creative work relative to other activities.

**The Transrational**

Transrational themes such as love and sacrifice are notable in the data. Sam, a glass artist from Perth, reflected on his post-graduation experiences and recorded the role of sacrifice in arts practice: “I’ve since learned that very few ‘make it’, and that if you decide that you will sacrifice other things to make your career in the arts happen, then it can happen.” Simon, a practicing musician’s response invoked his music idols as ‘Gods’: “I have always loved Music, especially Rock’ n’ Roll, growing up in the late 50’s and 60’s and being there when Elvis Presley was God and then others like The Beatles, Joe Cocker, CCR, Etc....
followed in his shadow.” Such Godly ascriptions were noted by Sylvana, a Perth actor, in her narration of a formative event in her arts practice in meeting her “acting teacher (sent from God!) and having her believe I could actually act.” Other respondents more directly addressed the place of religion and the transcendent in the art, and their discovery as a formative event: “Discovering a deeper sense of place, spirituality and community life”; “spiritual and emotional fulfilment”; “fragile forces of self examination and new ideas, without constraint. Religion and science can’t do what art does”; “The spiritual oneness that can be achieved when a church music team enables congregational participation.”

Love for one’s work is a particularly prominent theme in creative workers’ responses. On an account of his unpaid time commitments, Barry, another actor, stated: “There are always bits and pieces that I’m asked to do for love.” Love was also invoked by others as integral to their creative practice: “The illustration work I do is a gentle celebration of the love of things around me”; “The opportunities to share messages of love, reconciliation and healing with the wider community through joyful performances”; “Celebrating the love of music with my children.” These responses collectively describe the mystery, love, paradox, meaning and transcendental themes inherent in creative arts practice.

**Metaphor**

Respondents were not directly asked to share metaphors of their career experiences. Certain metaphors, however, came across prominently and most notably of all, the career “journey” metaphor: “The journey has been expeditionary, and included many people, mainly my writing groups”; “I have begun an exciting journey of discovery”; “The journey for all involved in the choir has been life-changing… To acknowledge and embrace the stolen generations and their journey of healing”; “my creative journey of People and Place over time and space.” A second common metaphor involved a “boat” and the “sea”: “From time to time, I realize I am getting away from my aspirations, so I know I have to stop to correct the
‘direction of my boat’ again”; “Like a boat in a storm its more a matter of pursuing things that are within your grasp”; “I feel like a lone disciple in a sea of unbelievers.” Both these commonly used metaphors invoke the notion of the career journey as a hero’s journey in which the hero-artist is called upon to navigate challenges and uncertainties, to arrive at a new sense of self, self-discovery, re-birth and healing.

Lifelong Learning and Wisdom

Creative workers appear to value lifelong learning and knowledge acquisition, with many noting the important skills they have learnt on-the-job, outside of their formal studies, and the inspiration received from fellow practitioners; this indicates an alignment with the energizing and epistemic functions of heroic leadership. Monique, a writer, reflected on a key formative event in her career: “learning to go deep into the ideas that mattered to me and to keep ‘going there’ day after day through thick and thin.” Jeff, an actor also cited ongoing learning as a major formative event: “Meeting the wonderful people I have met in the industry and learning what I can from them to further myself as an actor and a person.” Jaime, a singer, noted: “Of course any training just gives you some tools and insights of a career, but most of things you are only going to learn in the practical world, exercising your profession.” Joe, a creative arts consultant, passionately stated: “I am always seeking new knowledge and new opportunities.” Patrice, a musician and artist’s response, in particular, reflected the importance of the ecological function of heroic leadership in lifelong learning: “I feel musical participation at a community level is an important part of learning and development.” Sarah, a poet, cited the knowledge, inspiration and wide-ranging skills that artists have to offer as one of the most impactful and important contributions the creative industries can have on the broader community.
The Heroic Career Journey: Risk, Adversity and Transformation in Creative Career Identity

Resilience in the face of adversity is essential to the development of a heroic profile. The presence of risk is emerging as a key component to heroism and heroic leadership (Anderson, 1986; Eagly & Becker, 2005; Franco, Blau & Zimbardo, 2011; Stenstrom & Curtis, 2012; Weinstein, 2012). The creative workforce data evidence a degree of risk present in the career journey and its critical formative function. In a poignant response, Desiree, a glass artist, described the heroic leadership of her employer in the face of risk as a source of inspiration to her own practice, resulting in a key shift in her thinking:

I think working for the artist I currently work for, as the investment and commitment they have made in their business is much greater than any other artist I have worked for. I see their grand vision about it all – the lifestyle they work towards, the people they want to employ, the scale they want to work at – and the risks they take to achieve those goals. I want to have the courage, experience and the resources to take on those challenges some day.

The idea of high risk art as the most valued form of art and professional practice is confirmed by CWI data. Sal, a painter, reflected on one the most formative aspects of his work:

“Building my house, which is my main work of art which is based on hard work, practising what I preach and high risk (Not just ‘easy art’)”. Actor Simon concurred: “The risks taken in state subsidised work are greater than in the commercial sector and therefore can be more interesting and progressive, rather than conservative and ‘safe.’” Another actor, Michelle, stresses: “I think commercially produced art is not the answer. Commercially produced art is by its nature popular and therefore less risky and less questioning.”
The necessity of developing heroic leadership in the face of this risk across psychological, social and physical arenas by respondents is essential to their survival, and their success in this heroic career journey. Tania, a Perth actor, writer and dramaturg notes: “I believe the variety [in artistic practice] shows tenacity and a determination to survive in the Industry.” The road to employability and successful career identity development bears all the hallmarks of such a journey – identity, like the hero’s journey, is a cyclical process of becoming. In a similar vein to the respondents’ narratives, the cyclical hero’s journey as proposed by Campbell (1949) involves a pre-action stage prior to crossing the threshold into the unknown world, the central part of the journey defined by action and the descent into the “cave” or “underworld” in which risk is heightened, and the return to the ordinary world which offers the opportunity for reflection on one’s actions in the journey and an opportunity to give back to society by sharing what one has learnt.

The career hero’s journey, like all hero stories, is fraught with risk. The same can be said about employability, which is a process of negotiation to create and sustain meaningful work across lengthening working lives and multiple contexts (Bennett, 2016). Heroic leadership is essential to the negotiation of different contexts and throughout the lifelong career journey – the career journey can be classified as a heroic journey, regardless of whether one is in a hazardous profession. The increased complexity of the 21st century world means that contemporary workforce environments are in many ways more precarious than they used to be. The act of “sticking one’s neck out” is distinctly heroic – people need to be brave enough to put themselves and their ideas forward, to embrace change, and to foster personal growth and developmental health in their lifelong development as heroic leaders. This is of particular importance for women, who can struggle to be visible both within organisations and within networks that are crucial to work and advancement (Punnett, 2016).
In employability, the psychology of heroism truly does unfold over time (Allison & Goethals, 2014). In our study, respondents were asked to describe three formative events. They often described positive events such as an award or significant funding. Most commonly, however, respondents recorded moments of challenges or career interruption. Crisis, stress and adversity featured prominently in respondent accounts, and people described varying degrees of ability to overcome these challenges.

Determination, initiative, a “go-getting” attitude, drive, passion, problem identification and problem-solving are integral to overcoming crises, developing a heroic profile (Franco, Efthimiou & Zimbardo, 2017) and sustaining a coherent and purposeful career identity (Fugate, Kinicki & Ashforth, 2004). These important heroic leadership qualities are often brought on by a transformative negative event (for example the loss of a loved one as a driver for devoting one’s life to curing cancer). Respondents’ formative events featured as rites of passage or key points on their journey, all of them essential to the hero’s journey and the development of heroic leadership. Crises of confidence were common points on the heroic artistic career journey. These included the rejection of artistic work, the experience of sexual harassment (see Hennekam & Bennett, in press) and the impact of funding cuts.

Events such as those described above can be transformative. Transformation is a key consequence of the hero’s journey and heroic leadership – loss and adversity wakes up and creates the drive and transformative impact of the heroic career journey. According to Campbell (1949), struggle and adversity promote growth, development, and an awakening toward one’s full potential. The career journey on which people find themselves requires people to invent and reinvent themselves, their goals and their identities. Career development requires a heroic shift in consciousness that provides a new “map or picture of the universe and allows us to see ourselves” in entirely new and energizing ways (Campbell, 1949, p. 56).
Overall, an individual’s career journey produces transformations that are mental, emotional and spiritual in nature (Allison & Goethals, 2017).

Creative writer Seth affirmed the central value of transformation in arts practice despite the costs: “Community work is what I find most rewarding and of transformative, social value, but it requires a great deal of prior, unpaid work in providing grant application material.” In career terms, as discussed, this transformative aspect of the hero’s journey often results in the recognition of a calling (Dik et al., 2017). The powerful extract below came from a musician, Sarah, who told of the career journey as a heroic calling that transcends monetary, status or other rewards – it is felt as a deep longing and need despite family, relationship or other obstacles, without which the artist hero feels incomplete, broken, and out of sorts with herself and the world.

My third and last huge crisis happened when ... because of familiar and financial pressure again I decided to give up my music career forever, in order to save my marriage (because of my kids). The result of this decision was, of course, a depression. Only by eventually going to an audition to a local band and being the selected one that I could overcome the depression and fell alive again. So I realized that being an artist is being myself and that I cannot stop being myself. Since then, I have being working with passion on my music again and getting more and more involved in the local music community and industry. Unfortunately my marriage could not resist to it, so I have separated from my partner ... My dedication and passion to my music career was always the big issue in our marriage. As I described it took me many years to understand how vital is music to me and that literally I cannot live without being involved with it. So now that it is very clear to me, I feel good, enthusiastic and confident under my own skin and I see my original career aspirations smiling at me again.
Artist and painter Wayne described his creative artist’s career journey as a hero’s journey that features physical and emotional suffering, dedication, rites of passage, and transrational themes associated with the career journey metaphor.

[This participant’s testimony has been removed pending their consent for inclusion in the published final article, as requested by them and in accordance with ethical guidelines]

The transformative power of loss and the reclaiming of one’s authentic self through the career journey in both these artist stories reveal the profound impact career identity can have on all aspects of a person’s life, and the necessity for the energizing, epistemic and ecological properties of heroic leadership as a survival tool.

**Discussion and Directions for Future Research**

Our artists’ stories reveal the psychological, spiritual, social and physical heroic leadership that is essential to employability success. In particular, they evidence a degree of risk present in creative workers’ heroic career journeys and their critical transformative function; as Elyse, a writer, tellingly puts it when narrating her creative/life story, “[w]e scrape together some form of success despite – not because of – the obstacles that exist.” These aspects deserve attention in future research.

How might heroic leadership contribute to career identity in the 21st century, and why does this matter? The 21st century labour market is more complex and precarious than ever before, demanding the development of a unique skill set to cope with the fluidity and unpredictability of work amidst the diminution of social protection (Benach, Vives, Tarafa, Delclos & Muntaner, 2016). This is marked by a higher degree of risk and employee turnover, and less traditional employment contracts between individuals and single employers. This has significant implications for wellbeing and employee rights. As a result,
the need to develop a heroic sensibility in employability on both a personal and social scale has never been more urgent. To sustain their employability, more workers overlap periods of work with periods of learning and re-training (Hall, 1996) whilst working with multiple employers in digital and non-digital domains. This requires workers to manage multiple, agile identities (Fugate et al., 2004). It also requires workers to manage their own careers. These precarious realities necessitate the development of a heroic mindset.

The epistemic, energizing and ecological functions of heroic leadership are essential ingredients required for this new era of career self-management and dynamic career identities. Inspiration is crucial to risk-taking, which is in turn essential to growth – the heroic career skill set is centred on risk and developmental growth (Franco et al., 2017). The ecological function of heroic leadership is an internal management system of chaos, priming the individual in a position to manage uncertainty and achieve equilibrium, making a degree of disorder and therefore risk-taking essential (Efthimiou, 2017). However, career immobility often accompanies individuals who become entrenched in careers with high status or high demand (such as an orchestra) or feel the effects of diminishing technical skills, discouraging a heroic leap into the unknown (Gemris & Heye, 2014).

The cognitive aspects of employability are arguably the most important and yet the most ignored – functional skills are given greater primacy in contemporary narratives of employability and career guidance for students. The definition of the functional is centred on how success can be measured and quantified. In contrast, the deep reflexivity of the cognitive skill set requires individuals to look within themselves and ask core questions relating to personhood and identity, such as “Who am I?” “What am I doing here?” and “How might my skills and knowledge be applied in multiple contexts?” (Bennett & Ferns, in press). The cognitive aspect of employability is fundamentally linked to the transrational aspect of heroic leadership and its inherent meaning-making process that transcends the normative, the social
and the measurable. The cognitive aspect of career identity development is also closely linked to the development of the heroic imagination and career wellbeing in the 21st century:

“Strengthening the heroic imagination may help to make people more aware of the ethical tests embedded in complex situations, while allowing the individual to have already considered, and to some degree transcended, the cost of their heroic action” (Franco & Zimbardo, 2006, p. 34).

Franco and Zimbardo (2006, p. 34) caution that “[a]s our society dumbs down heroism, we fail to foster heroic imagination” and consequently to recognise its vast potential as a mechanism for developing holistic wellbeing. The cognitive aspect of heroic leadership forces the individual to look deep within themselves and assess how their work can become purposeful and energizing. Indeed, the benefits of fostering one’s heroic imagination run parallel to the benefits of developing self-regulation – the process of imagining desired goals, and then managing one’s own thoughts, behaviors, and feelings to achieve these goals (Karoly, 1993).

The consequences of not pursuing a transformative heroic career journey can be inferred. At a basic level, the inability to be reflexive means that transformative moments are lost. But some of the most disturbing examples come from career attrition and the significant bitterness felt by individuals who abandon their careers. This unresolved tension or enforced career transition results in negative perceptions of their profession, their education, and the injustice in that journey. This is particularly problematic in cases of career abandonment in the creative industries – as seen in our study, creative workers who have made an active decision to leave can be labelled a “traitor” who has betrayed their profession. The ostracism and vilification experienced by these individuals from others within their field and social networks for their lack of commitment to their art, signifies their passage to the role of a villain, rather than a hero. The “career villain” in this sense represents the crime of betraying
one’s profession. Becoming a villain, goat, anti-hero, or fool – at least in the short-term – seems to be an inevitable part of any hero’s journey (Allison & Smith, 2015).

Such examples demonstrate the critical importance of career fit and the impact this can have on one’s life and wellbeing. Indeed, the complexity of work relayed by respondents emphasises the need for the growth mindset (Rowley & Munday, 2014). As such, identity sits alongside a sense of self that is variously hero and anti-hero – reinforced and disrupted, ideal and feared, transformative and troublesome, through “a dynamic interplay between the two notions of who the person is becoming and what they are coming to know” (Reid, Abrandt Dahlgren, Dahlgren & Petocz, 2011, p. 15).

The reasons for consciously deciding to leave a career are obviously as complex as the ones for choosing to enter it. There are no “right” or “wrong” choices as such in a lifelong process that is characterised by constant learning and adjusting in career identity development, but rather good and bad career fit. Reviewing employability data from a heroic leadership lens reveals how we can assess the underlying motivations of these choices and can begin to be more conscious of their consequences. Making better career choices could help mitigate harmful workplace events and their impacts on other life aspects as a result of poor career choices. In the context of the hero’s journey, there are no bad career choices in the larger, long-term view of the journey. All heroes commit transgressions and suffer setbacks that ultimately yield treasure. As Joseph Campbell (1949, p. 109) wrote, “[i]t is by going down into the abyss that we recover the treasures of life. Where you stumble, there lies your treasure.”

One of the core findings of the survey was the strong need of respondents to vocalize their stories of adversity, pain and resilience, and their depth of diversity: although sharing their stories was an optional part of the survey, almost half of the artists (43.7%) wrote on aspects of their life story or provided links to their blogs and websites as a form of digital
storytelling. As such, a fruitful avenue for future research would be an exploration of heroic leadership in respect of story, wellbeing, creative practice and career identity.

Another avenue for future research concerns the contributions of artists and arts educators on the embodied experience of everyday heroism through the collection of personal and community stories and images. Such evidence-based research would help explore the sustainable and applied health benefits of hero stories and heroic leadership. This work is premised on the conceptualization of the self as life author and participant in their hero’s journey, as a well-established form of narrative inquiry (Franco et al., 2017). This intimate exploration of the self as both author and everyday hero could, through innovative methods, assess how the agency of the body manifests throughout the transformative process, thus revealing the psychospiritual, social and physical dimensions of heroic leadership with greater clarity. The resulting stories collected are likely to present less anticipated obstacles to the transformative process, what makes its completion an arduous journey, the consequences or costs of both completion and non-completion, and a cursory overview of what personal, social and physical factors may act as powerful motivators for heroic transformation.

**Conclusion**

A heroic leadership approach to career identity involves the paradox of actively working with, imagining, and potentially mitigating harmful risk by recognizing the equally transformative value of failure and success, loss and elevation. It involves inspiring us to action and sticking our neck out. This is the re-conceptualization of the job seeker as a human-hero actor, a leader and a “positive deviant” (Parkin, 2010, p. 1). A heroically driven career identity is not a risk averse identity – it is defined by strategically informed, educated and inspired life decisions. It places individuals in a stronger position by aiding them to be sufficiently self-aware and equipped to negotiate career changes over time, as and when they are needed. It is therefore sustainable in every sense of the word. The inspiring, energizing
and wisdom gaining properties of heroic leadership foster the self-confidence and self-efficacy required to more successfully navigate creative careers and transitions.

We conclude with a nod to Dik et al.’s (2017) analysis of career identity within the context of the hero’s journey. The authors argue that one’s calling in a career context endows the career with heroic elements, including a broader sense of purpose and meaning in one’s life as a whole. A career calling serves as a catalyst for the hero’s journey towards a career that allows one to flourish mentally, emotionally, physically and spiritually. Dik et al. (2017) define a thriving career as one that is endowed with meaning and purpose, and that gifts an individual with a sense of autonomy, described by Allison and Goethals (2017) as a key outgrowth of the hero’s journey. These gifts serve as grist for the generative mill of the hero’s gift or “boon” to society, described by Campbell (1949) as a late stage during which the hero mentors individuals at earlier stages of their hero’s journey, reflecting Watt et al.’s (1012) notion of social utility. Mentoring others allows one to thrive in a career context, endowing the hero with an ever-deepening sense of meaning and purpose in life. We believe that future researchers might productively direct their attention to the genesis and processes of career callings in the context of heroism.
References


comparison using the FIT-choice scale. *Teaching and Teacher Education, 28*(6), 791-805. doi:10.1016/j.tate.2012.03.003


Summary and Link to Next Chapter

Chapter 6, “Creative Careers: A Heroic Leadership Perspective” has highlighted valuable links between creative employability, career identity, heroic leadership and the hero’s journey. Importantly, it has highlighted the value of heroic leadership across the psychological, social and physiological arenas, including embodied leadership.

The final chapter of the thesis, Chapter 7, “The Hero Organism: Advancing the Embodiment of Heroism Thesis in the 21st Century” provides a transdisciplinary survey of the embodiment of heroism across key areas. It aims to redress the balance between the biological and broader domains in the transdisciplinary framework, thereby demonstrating how heroism is embedded and embodied in the everyday.
Chapter 7: The Hero Organism: Advancing the Embodiment of Heroism Thesis in the 21st Century

The Hero Organism
Advancing the Embodiment of Heroism
Thesis in the Twenty-First Century

Olivia Efthimiou

Contrary to the idea of the heroic elect … most people are capable of heroism with the right mindset and under certain conditions that call for heroic action … The banality of heroism argument … asks the question, “what if the capability to act heroically is also fundamentally ordinary and available to all of us?”

(Franco, Blau & Zimbardo, 2011, p. 100; emphasis added)

Heroic accounts have captured the human imagination throughout history. In postmodern times the academic community has witnessed a resurgence in the intellectual and empirical pursuit of the concept of heroism—the advent of the multiple disciplinary field of heroism science signals the end of the monopoly of myth, fiction and popular culture on the study of heroism, offering a multi-perspective lens for the active and rigorous observation of this enduring phenomenon. Research efforts to date, however, have largely focused on its psychosocial aspects, without addressing the interaction with and relationship to the body in sufficient depth. This chapter aims to contribute to growing heroism research by considering the sidelined role of the body, and embodiment more broadly in the heroic process and experience.

First, I will contextualize this agenda in broader significant intellectual shifts. Second, the joint reading of contemporary and traditional phenomenological embodiment schools of thought, in particular Merleau-Ponty’s (1962, 1964) address of contemporary heroism and his legacy, together with Allison and Goethals’ (2014) heroic leadership dynamic, is used to form an “embodiment of heroism thesis”—heroism is defined as a distinct state of embodied consciousness accessible to all human agents in everyday lived experience. The idea of heroism as embodied skill acquisition is used as an example. This thesis rests on the notion of the body as compatible with, but distinct from traditional biological conceptualizations. In the third section, the application of Johnson’s (2008) outline of the five facets of a body to heroism results in two transdisciplinary conceptual frameworks: the heroic body (as biological organism; the ecological; the social; the cultural; and the phenomenological), and the hero organism. In the fourth and final section, I map the epistemological and methodological contours of the “dynamical hero organism self-system.” This is a preliminary investigation of organisms against cutting-edge theories that demonstrate peak states, agency and embodiment—physical intelligence and flow—resulting in the definition of the heart of heroism as biopsychosocial resilience and transformation. As Allison and Goethals (2014) surmise, we are all wired for heroism—to uncover this we must develop an intimate understanding of the processes, functions and consequences of the “heroic embodied mind.”
The Dissolution of Disciplinary Boundaries, the Return of the Body and the Rise of Heroism Science

Heroism science seeks to reconceptualize heroism and reinvigorate its relevance in the twenty-first century, by using a broad range of epistemological and methodological tools to promote widespread holistic well-being. The timing of its emergence is not coincidental—it is representative of a broader shift in intellectual thought towards greater “multiple disciplinarity” (Choi & Pak, 2006, p. 358). The opening up of the study of heroism beyond the humanities to increasingly “integrative” disciplines such as psychology (Bandura, 2001, p. 12) is in many ways revolutionary. It reflects the breakdown of “disastrous” (Johnson, 2010) dualisms in which our history is deeply, but thankfully not irreversibly, steeped. Most prevalent is the mind-body dichotomy, or the long-held view that the mind and body are to be looked at separately, with the brain’s development remaining fixed following our formative years (Johnson, 2010). Kinsella (2012, p. 85) highlights the sweeping “physical, psychological, and social benefits provided by heroes.” Researchers (Kafashan, Sparks, Rotella, & Barclay, Chapter 2, this volume; Preston, Chapter 4, this volume; Rusch, Leunissen & van Vugt, 2015; Smirnov, Arrow, Kennett & Orbell, 2007) are just beginning to embark on important work that investigates the biological and evolutionary aspects of heroism, with the physical aspects only having been addressed peripherally in the literature (e.g. physical attributes, physical strength, gender).

This renewed interest in the centrality of the body has been gaining considerable ground by a new generation of scholars since the mid-twentieth century. Tremendous advances in the cognitive sciences spanning a vast array of disciplines from “genetics” to “linguistics” (Johnson, 2008, p. 160) are now making it possible for us to begin to construct novel conceptualizations of human behaviors. Heroism is no exception—Gray (2010), for example, is in the early stages of demonstrating the remarkable links between the heroic mindset and its impact on our bodies. In what is perhaps the most fascinating unfolding story of “genomics meets heroism,” The Resilience Project led by Dr Stephen Friend at Sage Bionetworks and Dr Eric Shadt at the Icahn School of Medicine at Mount Sinai is a groundbreaking global study looking for “genetic heroes” who have demonstrated unusual immunity to debilitating diseases and “genetic mutations” (Giller, 2014). This is prime evidence that the way we are looking at disease, well-being and the human condition is shifting ground at the nexus of science and culture.

This increasing momentum stands to have far-reaching impacts not only for the study of heroism, but research overall. Bandura (2001, p. 12) highlights the “changing face of psychology,” the primary field presently engaged in the rigorous analysis of heroism. Chemero (2013, p. 145) notes that “there have been two ways to do psychology” from its inception: the mainstream “Structuralist,” and the nascent “Functionalist” approach. The functionalist view of the “whole is greater than the sum of its parts” was born out of a dissident tradition of scholars seeking a deeper understanding of how individuals function in their broader environment, and how this in turn affects them at the deepest sensorial and embodied level of consciousness. The emerging field of “Radical embodied cognitive science is an interdisciplinary approach to psychology that combines ideas from the phenomenological tradition with ecological psychology and dynamical systems modeling” (Chemero, 2013, p. 145). The timeless, intricate and deeply enduring nature of heroism figures as a prime candidate for this multi-spectrum framework. Heroism science therefore has the potential to radicalize the face of psychology, cognitive sciences and beyond, re-shaping and challenging fundamental notions of what it means to be human in the process.

The mind–body connection and the vital role of the body, however, still remain largely absent from emerging perspectives on heroism, despite the significant strides that have occurred in only a decade. The embodiment of heroism thesis presented here aligns with radical embodied cognitive science’s agenda in a number of ways. At its very core, it aims to supplant “the current trend of supplementing standard cognitive psychology with occasional references to the body”
The Hero Organism

(Chemero, 2013, p. 145). Franco et al. (2011, p. 106) highlight “the role of physical risk as a determining element in the public’s view of prototypical heroic action,” noting that social heroes are not commonly perceived as heroic as “physical risk heroes,” such as firefighters and soldiers. The embodiment of heroism thesis differs in its proposition that all types of heroism encompass a physiological and embodied basis or aspect of experience. In this critical point of departure we cannot distinguish between “physical” and “non-physical” heroism. It is the aim of this thesis to counteract such public pre-conceptions and empirical observations of the phenomenon.

The Heroic Embodied Mind: Heroism as an Embodied State of Consciousness

What precisely is a “body”? This is perhaps the most poignant question any embodiment theorist can ask, and an enterprise that is far from simple given the intricate layers with which our corporeality is intimately interwoven—from the cultural, to the biological, the spiritual, the psychological and so forth. Addressing this question becomes an inevitable focal point on our journey to developing a deep appreciation of the heroic experience. Smyth (2010) and Moya (2014) provide illuminating interpretations of some of the core theories set out by the “father” of embodiment, French phenomenological philosopher Maurice Merleau-Ponty. In particular, Smyth’s (2010) elucidation of Merleau-Ponty’s (1964) essay “Man, the Hero” (originally published in 1948) serves as a critical insight into the vital contribution embodiment theory can make to contemporary understandings of heroism.

Merleau-Ponty (1964 and 2012, cited in Moya, 2014, p. 1) argued that “there is no hard separation between bodily conduct and intelligent conduct; rather, there is a unity of behavior that expresses the intentionality and hence the meaning of this conduct.” This is a non-reductionist view of the brain and body; this idea of an “embodied mind” (emphasis added) or a minded body” (Gallagher & Zahavi, 2008, p. 153) integrates and “transcends the physiological and psychological” (Merleau-Ponty, 1964 and 2012, as cited in Moya, 2014, p. 1) dismantling the mind-body dichotomy. Accordingly, the concept of a “body” in the embodiment of heroism thesis is not confined to traditional biological interpretations. Rather, it is a transdisciplinary understanding that embraces biology and evolution, but transcends it to consider the critical inter-relationship with the mind, broader environment, and metaphysical experiences beyond these. As will be discussed, the physical, mental, social and spiritual modes of experience are co-present in, dynamic and integral to the embodiment of heroism and the heroic body.

In this integrative conceptual framework the body appropriates “itself a form of embodied consciousness” (Merleau-Ponty, 1964 and 2012, as cited in Moya, 2014, p. 1). The foundation of this embodied state of consciousness that gives expression to the intentionality and meaning of embodied action, according to Merleau-Ponty (2012, as cited in Moya, 2014, p. 2), is habit:

the situated character of the person explains that there is, at the same time, a “general” existence as well as an existence that is linked with the effectiveness of action, and which we can call “personal.” Being anchored in the world makes the person renounce a part of his or her protagonism because he or she already possesses a series of habitualities.

This concordance of the general and personal nature of situated embodiment reminds us of the paradoxical universal and context-specific property of heroism (Franco et al., 2011; Kinsella, 2012). Heroic protagonists’ actions may be theorized as being deeply embedded in a readily accessible habitual apparatus, invoking Allison and Goethals’ (2014, p. 175) proposition that any person is “developmentally equipped” for heroic action, which can be adjusted according to the sociocultural setting.
Crucially, for Merleau-Ponty (1962, as cited in Smyth, 2010, p. 177) “the locus of heroic action is the habitual body.” This notion of habituality provides a fundamental link between embodiment, Carl Jung’s innateness of archetypes theory proposed over 50 years ago, and heroic leadership or action. Merleau-Ponty (2012, as cited in Moya, 2014, p. 2) makes a distinction between “the habitual body—that of general and pre-reflexive existence—from the actual—that of personal and reflexive existence.” The habitual body corresponds with Jung’s conceptualization of archetypes as innate, universal and pre-conscious, which has been the focus of rigorous debate by analytical psychologists (for examples see Goodwyn, 2010; Knox, 2004). This powerful correlation between the habitual body, archetypes and their pre-reflexivity lends credence to the “hypothesis of shared generic dimensions of embodiment,” with archetypes figuring as an explanation for the “bodily grounding of our conceptual systems” and “key concepts in languages and symbol systems around the world” which feature so prominently in hero stories (Johnson, 2008, p. 162). The archetypal habitual heroic body is so firmly embedded in “deep time” (Allison & Goethals, 2014, p. 171) and the pre-conscious that it is impossible to ignore its perpetuity, as is manifested in the endurance of cultural tropes. Its form may change across contexts with the actual heroic body’s conscious domain of lived situated experience, but the universality of its habituality demands due attention.

Situating the heroic body in pre-conscious habitualities and supporting its rootedness in the innateness of the hero archetype could be viewed as an annihilation of our reflexive capacity and free will. How can we possibly be active participants in our life choices and wilful heroic actors if we are driven by pre-programmed archetypal bodily scripts drilled into us by evolution? But speaking of an embodied heroic mind and archetypal locus of heroic action is by no means a static view of the body. Despite the possibility of the existence of such pre-conscious mental and bodily schemas, there is a perpetual “dialog between environment and subject,” and an “understanding that both always co-penetrate each other” (Merleau-Ponty, 2012, as cited in Moya, 2014, p. 2). For Merleau-Ponty (1962, as cited in Smyth, 2010, p. 177) the localization of heroism in the habitual body is not a mindless and tragic thrusting of “one’s body into a lethal situation” signaling some temporal dislocation from our rational faculties. Merleau-Ponty’s (1962, as cited in Smyth, 2010, p. 168) “contemporary hero” always operates in the ever-present dynamic exchange between the habitual pre-reflexive and actual reflexive body. The heroic actor is constantly negotiating meaning between her instinctual patterns and lived environment. This is exemplified in Merleau-Ponty’s (1964 and 2012, as cited in Moya, 2014, p. 1) notion of the “lived or own body and of lived space.” In an embodied reading the heroic actor is seen “as subject, as experiencer, as agent” (Gallagher & Zahavi, 2008, p. 155).

There is a crucial link between this concept of lived heroism, embodiment and emerging notions of everyday heroism. According to Smyth (2010, p. 167), Merleau-Ponty’s (1964) brief essay on heroism aimed “to supply experiential evidence attesting to the latent presence of human universality,” reminiscent of Campbell’s (1949) seminal work on the universality of the “hero’s journey” as a pervasive mythical structure through culture and time. Merleau-Ponty’s (1964, as cited in Smyth, 2010, p. 170) had a very specific agenda: “to define the existential attitude (as a general phenomenon of our times, and not as a school of thought).” The definition of this existential attitude is exemplified in his notion of the contemporary hero. For Merleau-Ponty (1964), like Campbell (1949), the exaltation of heroes is a timeless cultural phenomenon. Merleau-Ponty (1964) notes a poignant shift in the hero in history from the Christian notion of sacrifice and the transcendental, to its grounding in the everyday individual with Hegel. It is in these Hegelian roots that we find the birth of the concept of the “everyday hero”: “living contact with the present as the germinal origins of the future” (Merleau-Ponty, 1964, as cited in Smyth, 2010, p. 174). This central feature of Hegelian heroism can be said to be the core premise of the emerging field of heroism science and the “new heroism” (Zimbardo & Ellsberg, 2013), characteristic of the increased infiltration of
Allison and Goethals (2014, p. 170) have introduced the heroic leadership dynamic (HLD) to gain a deeper understanding of the universal profundity of heroism and hero stories through time. The central premise of the HLD is the notion that “hero stories fulfill important cognitive and emotional needs” (Allison & Goethals, 2014, p. 169). The profundity of this need for story has been theorized by Price (1978, p. 3) as vital to the “species Homo sapiens—second in necessity apparently after nourishment and before love and shelter.” The HLD suggests that hero narratives serve two core functions: “epistemic” and “energizing.” The former “refers to the knowledge and wisdom that hero stories impart to us”; the latter “to the ways that hero stories inspire us and promote personal growth” (Allison & Goethals, 2014, p. 170).

Can Allison and Goethals’ (2014) HLD model be expanded to biological needs and situated in an embodied sense of self? The primacy of the attainment of knowledge and wisdom in heroic leadership’s epistemic function takes on a profound significance with the concept of a lived heroic body and its extension to the corporeal. The habitual property of human action suggests a type of “corporeal knowledge” as generator and distributor of bodily meaning (Merleau-Ponty, 1964 and 2012, as cited in Moya, 2014, p. 1). This is the original and truly embodied notion of the gaining of wisdom in the experiential terms and deep altering of consciousness that was implied by the ancient Greeks. It predates the school of thought of Plato and Aristotle in which the roots of contemporary Western culture may be traced, which gave primacy to knowledge acquisition as an exercise that is driven by pure reason and logic (Kingsley, 1999). This potentially profoundly transformative effect of the epistemic function of hero stories which lies in their “transrational” qualities (Allison & Goethals, 2014, p. 170; Rohr, 2011) speaks to the notion of the lived body as “a constitutive or transcendental principle, precisely because it is involved in the very possibility of experience” (Gallagher & Zahavi, 2008, p. 153). This grounds the everyday heroic experience in our bodies and the immediacy of the world around us, in meanings that cannot be reduced to conventional logic.

The energizing function of heroic leadership also takes on a heightened meaning in an embodied reading of everyday heroism. Moya (2014, p. 2) highlights that Gallagher and Zahavi (2008) demonstrate how perception “is not a passive reception of information, but instead implies activity, specifically, the movement of our body.” In this “enactive” approach to embodied cognition (Varela, Thompson & Rosch, 1991, p. xx) we can use embodiment theories to apply the notion of personal growth to the idea of heroic action as skill acquisition. Heroism is being reconceptualized as a behavior that can be trained and instilled in people of all ages, especially the younger generation. Initiatives such as the Heroic Imagination Project (http://heroicimagination.org) and The Hero Construction Company (www.heroconstruction.org) which aim at educating school children on Campbell’s (1949) hero’s journey, and inspiring and energizing heroic behavior to combat bullying, social injustice and promote civic action, evoke this emerging understanding of everyday heroism as a skill that can be acquired. In this spirit, Zimbardo (2015) has made a call for a public commitment to heroic action, and ordinary people to think of themselves as “heroes-in-training.” For embodiment theorists skill acquisition is centered in the “corporerealization of habit” (Moya, 2014, p. 3); any skill that was once external and unfamiliar to us penetrates our corporeality when fully grasped, connoting “beginner” through to “expert” stages of heroic embodied skill acquisition (Dreyfus & Dreyfus, 1999, pp. 105, 109). The energizing function of heroism permeates all aspects of our interiority, transcending the mental and psychological arenas—it is a property innate to us all which we can learn to master until it becomes fully embodied and integrated into our corporeality, accentuating our corporeal knowledge.

This embodied contextualization of the contemporary hero questions readings of heroic acts as “spontaneous” (for example, “subway heroes” in New York who save commuters about to be
struck by an oncoming train). One might begin to consider the events that led the individual to commit the heroic act as the product of a trained and astute embodied consciousness, culminating in the perfect unison of innateness and preparedness, or nature and nurture. This is contrary to what others might perceive as virtually seamless, even insane or irrational, reflecting the “junction of madness … and reason” in the contemporary hero (Merleau-Ponty, 1964, p. 324f/183; cf. p. 9/4). According to Smyth (2010, p. 177), for Merleau-Ponty (1962) “heroic action precisely instances the coincidence of” the actual and habitual body; “This is the condition of absolute knowledge, ‘the point at which consciousness finally becomes equal to its spontaneous life and regains its self-possession’.” The interchanging of heroism with this embodied condition of absolute knowledge aligns with the grounding of Allison and Goethals’ (2014) core epistemic function of the HLD in the acquisition of knowledge and wisdom.

This is a remarkably complex view of heroic action which cannot be reduced to any one aspect of existence or reference point. The point at which consciousness joins with its innateness is not a debilitating one that robs us of our self-determinism, according to Merleau-Ponty (1962, as cited in Smyth, 2010). By contrast, it may be the most profoundly liberating experience; Merleau-Ponty (1962 and 1964, as cited in Smyth, 2010, p. 178) states that “the hero is fully invested in the realization of freedom, understood in universal terms,” rendering the contemporary hero an “exemplary vivant, or living person.” This point of unison between the habitual and actual body is where heroic “operant intentionality” (Merleau-Ponty, 2012, as cited in Moya, 2014, p. 1) and sensibility “meets its maker” at its purest, both conscious and preconscious, embodied form. If we speak of heroism as an embodied acquired skill, this reading of Merleau-Ponty’s contemporary hero foreshadows the manifestation of heroism at its peak state.

This embodied engagement with our surroundings implies an active meaning-making process and understanding of the lived heroic body as always “coming to be” (Merleau-Ponty, 2012, as cited in Smyth, 2010, p. 1). It is in direct agreement with the “Temporal and Dynamic Components” of Allison and Goethals’ (2014, p. 177) HLD “in which the psychology of heroism unfolds over time.” This can be extended to the lived corporeal experience of heroism—we may thus speak of an embodied hero-in-process or hero-becoming. In the embodiment of heroism thesis heroic action is conceived as a simultaneously universal, yet deeply personal, distinct state of embodied consciousness and intentionality. The lived heroic body is grounded in corporeal knowledge generated both from a pre-reflexive or transrational set of innate habitualities, and conscious dynamic inquiry within lived space. This phenomenologically-informed definition suggests that heroism must assume its rightful place on the stage of consciousness in the cognitive sciences.

What Makes a Heroic Body?

What is the makeup of a lived heroic body? Founded on Johnson’s (2008) five-dimensional framework of a generic body, the embodiment of heroism is staged across the biological, the ecological, the social, the cultural and the phenomenological spheres of experience. Below is a preliminary outline of each of these dimensions.

The Heroic Body as Biological Organism

The concept of a heroic body travels far beyond certain physical characteristics, behavioral or physiological patterns reduced to traditional notions of personality and biology. This is a dynamic view of the heroic actor as a:

functioning biological organism that can perceive, move within, respond to, and transform its environment … It is this whole body, with its various systems working in marvellous coordination, that makes possible the qualities, images, feelings, emotions, and thought
patterns that constitute the ground of our [heroic] meaning and understanding.

*(Johnson, 2008, p. 164)*

This provides a foundation for the re-conceptualization of human organisms in their behavior, biology and culture, as *hero organisms*, to employ a transdisciplinary terminology.

The heroic body as biological organism is grounded in the “body schema,” or the “preconscious capacities” and “system of sensory-motor functions” of the habitual body *(Gallagher, 2005, p. 26; Johnson, 2008, p. 164).* This is an extension of Allison and Goethals’ *(2014, p. 170)* description of the epistemic function of hero stories in imparting “wisdom by providing mental models, or scripts” of heroic action, to embodied existence and bodily scripts pre-dating language and the construction of these stories in written or oral form. All action and perception is grounded in the corporeal for embodiment theorists such as Gallagher and Zahavi *(2008).* The attainment of wisdom in the process of heroic action is therefore no exception. We may ask for example: do heroic actors talk, think, move, perceive, and sense their environments in common patterns? How is this “set of structural patterns” *(Johnson, 2008, p. 164),* capabilities or scripts dynamically transforming and evolving with their interaction with the environment? Are modern sensory-motor manifestations of heroic action similar to or significantly different from ancient ones? These are just some cursory questions that setting a transdisciplinary framework for the reading of the heroic body can spark further inquiry into.

*(Johnson, 2008, p. 161)* states, “It is not surprising to find shared dimensions of bodily experience underlying all aspects of meaning and thought. Indeed, this is exactly what we would expect, given our animal nature and our bodily capacities for perception and action.” Allison and Goethals *(2014, p. 171)* highlight the significance of the epistemic function of metaphor, especially in the work of thinkers such as James *(1878)* who centralize it as a vehicle of human meaning: “heroic narratives and their meaningful symbols serve as metaphors for easing our understanding of complex, mysterious phenomena.” The function of metaphor is a central tenet in embodiment literature; one of the main drivers of Johnson’s *(2008, p. 160)* body of work, for example, has been to demonstrate “how imaginative processes like conceptual metaphor make it possible for us to do all of our most amazing feats of abstract reasoning, from moral deliberation to politics to logic.” Metaphor could therefore be the key to unravelling the shared body schemas of the heroic body, its pre-conscious and evolutionary roots.

Lobel *(2014a, 2014b, 2014c)* illustrates how the cognitive sciences are beginning to enrich our understanding of the embodied aspects of meaning-making processes. Lobel *(2014c)* defines embodied cognition as “the idea that the body and the mind work together and that our bodily feelings, our physical sensations influence our thoughts, our decisions, our behaviors, our emotions, and what is more important often without our awareness”—this is an “indissoluble link.” Lobel *(2014c)* denotes the critical importance of metaphor in establishing associations between physical objects, behaviors and perceptions of others—this is “embodied cognition in language,” and the premise that we use concrete objects to describe abstract concepts. Physical intelligence researchers are demonstrating that metaphors are more than just figures of speech—they are grounded in embodied experience. Indeed, *(Johnson, 2008, p. 161)* notes that a number of:

> cognitive linguists have argued that it is … shared sensorimotor structures of generic bodies that underlie much of the syntax and semantics of our natural languages and symbolic interactions, including spoken and written languages … art, ritual practice, and many other forms of symbolic expression.

This can extend to myth-making and the creative construction of hero stories.

Lobel *(2014b)* agrees that some metaphors are universal and cross-cultural, pointing to fertile ground for joint research initiatives between the field of heroism science and physical
intelligence to better understand the connection between story, language, metaphor (to name only a few) and heroism, and their shared embodied knowledges. Two pertinent questions that may drive the joint investigative enterprise between embodied cognition and heroism science, could be how can we apply the emerging theory of physical intelligence to: (a) heroic metaphors and understand their origins in embodied experience, and shared sensorimotor archetypal structures (e.g. via the use of Functional Magnetic Resonance scans); and (b) cellular behavior in relation to the hero’s journey to demonstrate the concept of the mind-body journey in heroism as a continuous, indissoluble process.

The Ecological Heroic Body

This dimension is premised on the notion that “The body does not, and cannot, therefore, exist independent of its environment” (Johnson, 2008, p. 164). This is an acknowledgement of the dynamic formation of identity in the intricate web of organismal-environmental systems. Indeed, researchers such as Lerner and Schmid Callina (2014) theorize a “relational developmental systems model” of “character development.” Our senses, bodily sensations and awareness, perceptions, inner thoughts, neurochemistry, non-conscious percepts, cellular behavior, physical expressions, language and so forth are constantly transmuted by this interactive dance. We may therefore speak of the broader ecology of the hero organism and its “ecology of suffering” (to borrow the latter term from Krassnitzky’s 1994 eponymous thesis). Thus, in the embodiment of heroism thesis an “organism” is understood as a transdisciplinary concept, across all spheres of experience. This notion is developed further in the next section.

The Social Heroic Body

This dimension recognizes that the environment or ecology in which the hero organism moves in is not simply biological in nature, and gives primacy to the premise that the “brain and the entire bodily organism are being trained up through deep interpersonal transactions” (Johnson, 2008, p. 165). Zimbardo and Ellsberg (2013) articulate the powerful effect group dynamics and social forces can have on fostering heroism. Franco et al. (2011, p. 101) have developed a multi-level operational definition of heroism “as a social activity.” The function of narrating hero stories as a primary social activity that affects us profoundly through our interaction with others, helps us grow as heroic actors and imparts knowledge, dates back to our earliest ancestors (Allison & Goethals, 2014). In the twenty-first century this process is facilitated now more than ever with the rise of social media, a space in which we can reflect on, debate and be inspired into action by heroic accounts across all spheres of human activity. In many cases the universal character of hero stories provides a lifeline and shared ground for people across cultures, dismantling cultural, racial, language and other barriers.

The social dimension of the heroic body comes with the recognition that some of our bodily capabilities are rooted in evolutionary processes such as natural selection. The deep-seated need for hero stories (Allison & Goethals, 2014; Price, 1978), as well as pro-social behaviors that are thought to play at least some part in the development of heroism in our species, are being framed by contemporary authors as evolutionary in nature. The potential evolutionary origins of heroism in connection with ancestral warfare and altruism are now being addressed in scientific literature (Kelly & Dunbar, 2001; Rusch et al., 2015; Smirnov et al., 2007), as well as emerging heroism science research (Kafashan et al., Chapter 2, this volume; Preston, Chapter 4, this volume). These preliminary studies can provide the foundation for building a sociobiological epistemology of heroism.
The Cultural Heroic Body

This dimension considers the cultural constructions of identity such as “gender, race, class (socioeconomic status), aesthetic values, and various modes of bodily posture and movement” (Johnson, 2008, pp. 165–166). We may indeed speak of a universal heroic culture that transcends local nuances (Allison & Goethals, 2014; Campbell, 1949; Kinsella, 2012). However, intricacies in specific cultural constructions of heroism are already beginning to be revealed. Franco et al. (2011) point out this complexity—heroes are both constructed and contested by a specific cultural setting, time and place of the act, usually in its aftermath when viewed as part of a sequence of events, and can be fleeting or enduring, positive or negative. The myth of a hero can take on a life far greater than the original act or achievement. It can be surmised that different historical and cultural periods need and give rise to specific types of heroes, a notion reflected in Allison and Goethals’ (2014, p. 178) concept of the “need-based origin of heroism.”

The complexity of the phenomenon is enhanced by gendered dimensions, addressed by some of the psychological literature (Becker & Eagly, 2004; Eagly & Becker, 2005; Martens, 2005; Rankin & Eagly, 2008). Other surreptitious factors have been highlighted by DeAngelis (2002, p. 1280), who points out that common definitions of heroism have never considered the issues of power and money. A critical analysis of heroism in popular culture must address the sensationalist tendencies of the reporting of events, potentially contributing to the over-saturation of heroic ascriptions, and their impact on our perceptions of the phenomenon. The political nature and discourse often underlying heroism forms a further important cultural aspect. The “new heroism” (Zimbardo & Ellsberg, 2013) is, at its very core, radically and inexorably political in nature. The increasing momentum being witnessed in a campaign to spread heroism into numerous facets of society—from education, to health, business, science, psychology, the arts and so forth—reflects a truly global phenomenon that can be dubbed an emerging twenty-first century heroism movement. The broad sociocultural and political impacts of this movement deserve systematic study.

The Phenomenological Heroic Body

This aspect of embodied heroic experience is vastly incomprehensible by the rational conscious mind. It is grounded in the “pre-reflective, nonconscious structures that make it possible for us to have any bodily awareness” (Johnson, 2008, p. 165). This proposed phenomenological aspect of the heroic body aligns with emerging understandings of heroism—Allison, for example, describes the hero’s journey as “a spiritual journey marked by encounters with transrational phenomena” (S. T. Allison, personal communication, November 7, 2014). Allison and Goethals (2014, p. 170) support the function of hero narratives as “far more than simple scripts prescribing prosocial action,” stating “that effective hero stories feature an abundance of transrational phenomena, which … reveal truths and life patterns that our limited minds have trouble understanding using our best logic or rational thought.” Smyth (2010, p. 187) argues that “Merleau-Ponty’s heroic myth in effect marginalizes heroism by confining it to a transcendent role.” This is arguably not a failing, but rather an accurate statement of the inherent transrational and energizing property of hero mythologies “which Haidt calls elevation” (Allison & Goethals, 2014, p. 173).

In a 1988 interview Campbell defined a hero as “someone who has given his or her life to something bigger than oneself.” This transformative property and function of heroic action is captured by Wade’s (1998, p. 174) interpretation of Joy’s (1979) conceptualization of transformation as “a metaphysical event. Energy fields not only permeate the physical body, but extend for some distance beyond.” This expansion of consciousness is a deeply regenerating event, felt across the physical and spiritual plane, illustrating a critical connection between heroism and the transfor-
Olivia Efthimiou

The phenomenological heroic body is marked by transrational phenomena which “beg to be understood but cannot be fully known using conventional tools of human reason. Hero stories help unlock the secrets of the transrational” (Allison & Goethals, 2014, p. 171).

This phenomenological property of the heroic body is critical because it gives us permission to delve beyond the confines of contemporary orientations of heroism towards morality or pro-social behavior, both from a psychosocial (e.g. group dynamics) and evolutionary (e.g. cooperation and altruism) perspective. Although it is important to acknowledge these aspects as part of the broader ecology of a hero organism, they cannot be regarded as definitive of the heroic process—this can be a deeply personal experience that takes place in the darkest, most quiet corners of life, and has little or no impact on other people. Does this make the act any less heroic? A pro-social attribution to heroism implies that the heroic act will be shared, and others will benefit in some form (as is indeed represented in Campbell’s hero’s journey cycle; Campbell, 1949). It arguably necessitates by definition that unsung heroes are sidelined, with their acts going unnoticed, unheard of and unrewarded. The transrational phenomenological lived heroic body is a recognition and validation of these silent heroic acts in real time—these do take place, eliminating the necessity for an audience or the presence of others for these acts to gain meaning. Rather, they carry an inherent meaning of their own, a corporeal knowledge that is bound to the lived experience of the heroic actor and does not require rational validation to assert its significance.

Out of all the dimensions of the heroic body, the phenomenological is perhaps the most problematic. Its transrational properties suggest that the domain of embodied heroic consciousness is never completely communicable, observable or quantifiable, and its ultimate knowledge is preserved only for those who venture beyond the realm of the known. Ultimately, the energizing force of heroism is geared towards one thing—emancipation (Merleau-Ponty, 1962, as cited in Smyth, 2010). The embodiment of heroism thesis asserts that if we are to truly understand the full gamut of this complex phenomenon we must widen its scope and definition. Indeed, not doing so goes against the very premise of the “banality of heroism” (Franco & Zimbardo, 2006). The phenomenological aspect of the heroic body lends support to the premise of the embodiment of heroism thesis to look beyond simple accounts of heroism as pro-social behavior or an exemplar of a moral ideal, and enhance its appreciation as a deeply personal, multi-sensorial and transrational experience.

Similar to Johnson’s (2008, pp. 164, 166) alert to the complexities of the notion of the body, the multi-dimensional schematic of the heroic body sketched out above offers “a cautionary tale” such that we must consider “multiple nonreductive levels of explanation” to fully appreciate the heroic embodied mind and the human condition. Accordingly, as Johnson (2008, p. 166) notes, we must be careful not to fall into the trap of “deconstructivist accounts of the body as a fabric of textuality … The body bleeds, feels, suffers, celebrates, desires, grows, and dies before and beyond texts”; all five interlaced aspects of the heroic body must be taken into account if we are to recognize the significance of the embodied nature of the heroic state. This cannot be reduced to a mere discussion grounded in biology, brain anatomy and genes (as scientistic accounts would offer), nor pure culture and relativism (as postmodern critiques would offer), nor traditional personality psychology with its deep emphasis on the behavioral aspects of an individual divorced from social, physical and spiritual forces. A reading of heroism must be accompanied by a deep interpretative proficiency in a multitude of discourses, as well as in our own and others’ life stories as part of a larger fabric.

A New Epistemological and Methodological Narrative: The Hero Organism

How may we begin to outline the parameters of the hero organism (HO) under an embodiment of heroism thesis as a valid epistemological and methodological narrative? Landau (1984, pp. 267, 268)
asks: “Are narratives testable” and “an appropriate form of scientific hypothesis”? In an attempt to offer a critical rationale for the bridging of the sciences and the humanities Landau (1984, p. 268) asserts that, “Rather than avoid [narratives], scientists might use them as they are used in literature, as a means of discovery and experimentation. Treating scientific theories as fictions may even be a way of arriving at new theories.” The implicit assumption of myth and story as fundamentally inferior to scientific and rational inquiry must be a key consideration in any future multi-level reading of heroism, especially in light of the core roots of heroism in the former.

Allison and Goethals’ (2014) HLD offers a solution to Landau’s question on the testability of narratives as suitable forms of scientific hypothesis. The HLD is a “science of story”—but not one that pushes myth to the corner as a second-order epistemology. It is a framework that preserves the integrity and “life-supporting nature of myths” (Campbell, 1972, p. 12) and function of hero stories, presenting a methodological baseline from which we can begin to dissect, review and expand on the mechanics of heroism, and story at large. Allison and Goethals (2014, p. 177) note that, “The HLD and its temporal component can be viewed as a story itself.” In a similar fashion, the HO can be approached as a base (life) narrative on which we can apply the central components of the HLD, embodiment theory and other emerging innovative frameworks. We may thus begin to develop a transdisciplinary epistemology and methodology for the theoretical observation and empirical assessment of the core functions, processes and consequences of the HO as a testable narrative (see Table 8.1).

In this integrative framework the heroic embodied mind may be applied across multiple layers of narratives or contexts. Stephens and McCallum (1998, p. 6) define a “metanarrative” as “a global or totalizing cultural narrative schema which orders and explains knowledge and experience.” This is a narrative about a narrative, incorporating other smaller stories forming a whole. The embodiment of heroism thesis considers how seemingly different types of stories can enrich and enhance each other. To achieve this, this section considers traditional, as well cutting-edge theories, in a preliminary attempt to hone in on the contours of heroism as a distinct state of embodied consciousness. It builds on the five-dimensional model of the heroic body, using it as a foundation for embarking on an embodied reading and expansion of Allison and Goethals’ (2014) HLD at greater depth. By doing so, it provides a preliminary outline of the parameters of the HO, offering a narrative mechanism to gain a comprehensive and integrative understanding of heroism in the field of heroism science. A reflection of the fluid, dynamic state of the embodied mind, the HO framework rests on the following four key tenets: heroism as process; crisis as the core activator of heroism with embodied transformation lying at the heart of the heroic process; and the notion of the HO as a dynamical self-system.

The Dynamical Hero Organism Self-System and the Relationship Between the Ecology of Suffering and the Ecology of Heroism

The concept of the heroic actor as a dynamical HO self-system is born out of the notion of the “heroic body as biological organism” which can only be fully comprehended in unison with the broader ecological, cultural, social and phenomenological aspects of the heroic body. Chrisley and Ziemke (2006, p. 1102) argue that:

An understanding of how cognition is realized or instantiated in a physical system, especially a body, may require or be required by an account of a system’s embedding in its environment, its dynamical properties, its (especially phylogenetic) history and (especially biological) function …

To apprehend the dynamical properties and other key parameters of the HO self-system, we turn to our systems-inspired HLD. The energizing function of hero stories in Allison and Goethals’
(2014, p. 173) HLD is broken down into three sub-components; hero narratives achieve this function “by healing our psychic wounds, by inspiring us to action, and by promoting personal growth.” The epistemic function is also premised on a tri-part vehicle that reveals “deep truths,” “paradox” and develops “emotional intelligence,” resulting in “wisdom” gaining as its core impact (Allison & Goethals, 2014, p. 171). The role of each of these in relation to the proposed epistemology of the HO will be considered at further detail.

How is the HO energizing? In an embodied reading, the healing of our psychic wounds takes on a core meaning. For Merleau-Ponty (1964), according to Smyth (2010, p. 179), “normal human existence is constitutively “sick” on account of the schizoidal duality of being-in-itself and being-for-itself to which anthropogenetic reflective self-consciousness leads.” The contemporary hero plays a crucial role in alleviating this state of malaise, revealing the energizing function: “Through his complete internalization of the negativity of death, the hero effectively heals this split by achieving a self-coincidence that amounts to a condition of pathological health” (Merleau-Ponty, 1964, as cited in Smyth, 2010, p. 179). The key component that activates heroism and this crucial opportunity for healing, action and personal growth, is crisis or struggle. It is the premise of the embodiment of heroism thesis that the deeper the suffering and crisis, the deeper the potential for transformation and change. Crisis, as Franco and others theorize and incorporate into holistic community crisis management strategies (for examples see Franco, Hayes, Lancaster & Kissack, 2012; Franco, Zumel, Blau & Ayhens-Johnson, 2008; Gheytanchi et al., 2007), serves as a key activator that spins all aspects of heroism into motion.

As Begley (2007) reveals, persistence, intensive focus and hard work in the face of struggle and trauma appear to figure as prominently in neuroplasticity—the emerging cognitive science detailing the astounding capacity of the mind and body to work together in the healing process—as they do in hero stories. These traits can be used to describe heroism. This is reflective of the rehabilitation journey of the most difficult cases of brain damage, such as stroke, where the view of the brain’s hardwiring is most persistent—the stories of these patients who struggle to regain the function of their paralysed limbs can be pinpointed as an example of a heroic day-to-day activity aiding the survival and evolution of the organism. Emerging literature cites the conflation of trauma and personal growth, and how challenges may feature as an essential pathway for building resilience, and the development of a heroic mode of being. Nelson (2011, p. 26) describes how PTSD sufferers can connect with the heroic domain by “creating their own unique meaning that can be brought out of the experience, writing their own ending to the trauma narrative.” The experience of trauma and the demonstration of resilience, which “is generally defined as one’s ability to bounce back after a traumatic experience” (Nelson, 2011, p. 7) is instrumental to this process:

What makes our characters heroic is their perseverance through the trickery and shadows, finding or creating light to guide them through the darkness instead of getting lost in it. Heroes are formed through transformative suffering and immortalized in legends throughout time.

(Nelson, 2011, pp. 26–27)

Likewise, Fosha (2002, p. 2) writes of September 11 survivors: “sometimes trauma awakens extraordinary capacities that otherwise would lie dormant, unknown and untapped … Crisis is opportunity.” Nelson (2011, p. 6) refers to September 11 as an example of “the potential for a national crisis to provide an opportunity for positive growth.” The “huge transformational potential” (Fosha, 2002, p. 4) of trauma is the foundation of the hero’s journey, as it is to the neuroplastic journey.

Monteiro and Mustaro’s (2012) representation of the hero’s journey utilizing bifurcation theory is a prime example of a scientific (in this case mathematical) analysis of the hero’s journey.
and the cross-fertilization of epistemologies. Crucially, a hero figure’s evolution is measured against the “cumulative suffering” experienced throughout the journey as the “control parameter” of the proposed context specific “discrete-time dynamical system,” rendering change inevitable (Monteiro & Mustaro, 2012, pp. 2233). It is notable that Monteiro and Mustaro (2012, p. 2233) state that this suffering is either self-imposed, or imposed by the environment or “unknown world.” This idea that an organism sets itself up for suffering as a conscious or unconscious learning and evolving process merits further investigation, in relation, for example, to its situatedness in the habitual and/or actual heroic body. According to Monteiro and Mustaro (2012, p. 2234) “in the bifurcation diagram, the first critical moment of the hero’s journey coincides with the transition from fixed point to chaos; the second one with the transition from limit cycle to fixed point,” with these “two crucial moments in every hero’s journey” regarded as “unique.”

Merleau-Ponty’s (1964, p. 330/186) contemporary hero is also grounded in chaos and disequilibrium:

Today’s hero is not skeptical, dilettantish, or decadent … it is simply the case that he has experienced chance, disorder, and failure … He has a better experience than anyone has ever had of the contingency of the future and the freedom of man.

This transdisciplinary historical juncture gives rise to the notion of the lived heroic body as a \textit{dynamical self-system}. Indeed, as Allison and Goethals (2014, p. 169) explicate, “The HLD includes the term \textit{dynamic} … intentionally”; this denotes “an interactive \textit{system} [emphasis added] or process that unfolds over time … that is energizing and always in motion,” consistent with Campbell’s (1949) conceptualization of the hero’s journey as a parallel for the stages of human development. The hero or HO is always defined in relation to chaos and crisis, but capable of (by being developmentally wired according to the HLD) organizing herself around it and overcoming it. Thus, the hero’s journey and heroic lived experience is, in essence, a regenerative and restorative cycle.

The grounding of a hero in the critical relationship between suffering and healing, or crisis and order, is clearly not unique to our times. However, for Merleau-Ponty (1964, as cited in Smyth, 2010, p. 177) the contemporary hero is in a distinct position due to the heightened diversity of our historical period—this is a “time neither of faith nor of reason, but rather of a world out of joint. Events exhibit no clear overarching pattern … for there are no absolute reference points for historical action.” In this age of increased uncertainty it is tempting to revert to old beliefs and dogmas, which has been demonstrated by the rise of religious fundamentalism and deep distrust in science. But it is precisely this heightened state of chaos that calls for the development of a deeper faith to facilitate our survival and self-organizing capabilities—one in ourselves, and our inner hero. This is not mindless faith; it is firmly planted in lived experience, in the examples of everyday heroism we can see all around us in their various typologies, settings and intensities. Smyth (2010, p. 180) notes that “For Merleau-Ponty, the hero provides such evidence.” Indeed, in the new heroism and heroism science the potency of the phenomenon is evidence-based, paving the way for the in-depth empirical assessment of heroism for the first time in the history of its study. This realizes Merleau-Ponty’s (1964, as cited in Smyth, 2010, p. 170) existential agenda for heroism “(as a general phenomenon of our times, and not as a school of thought),” validated “positively and on the basis of examples.”

Developing a nuanced understanding of the embeddedness of the HO within its broader ecology of suffering and its dynamic inter-relationship with healing and growth, is critical to an embodied reading of heroism and the advancement of heroism science. Cutting-edge enterprises such as the Flow Genome Project (which will be explored in greater detail) are founded on the notion of “\textit{knowing how to suffer}” and understanding its mechanics as crucial to well-being and
human greatness. Within the context of a HO self-system suffering may be defined as the *degree of disruption of equilibrium* (positive or negative) in organisms, whether internally caused, or external/environmental (the “mythical call to adventure”), and the *degree of challenge posed to the organism* (the “mythical rites of passage”). The immediate spin-off effect is the commencement of some form of transformation (or regeneration in biological terms), complete or incomplete, which may have repercussions for the immediate environment and broader macro social scale. This transformative process is bound to the language of suffering and resilience in the bearing (trauma) or shedding (healing) of an emotional and/or physical wound. It is notable that Campbell’s (1949) hero cycle necessitates the passage through trauma in order to achieve healing of a wound (though the end of a cycle might mean the accumulation of new wounds, which require the repetition of the cycle, and so on and so forth). Further, the nature of the journey/cycle implies that there is no guarantee of a positive outcome (the risk factor associated with the hero’s journey).

This dynamic process denotes a scale of *degrees of suffering* ranging from mild discomfort to extreme life-threatening pain. Therefore, in the embodiment of heroism thesis heroism is understood as transformation through struggle, experienced and expressed in the everyday in varying degrees or forms. Specifically, in this working definition a hero, or hero-becoming, is understood as:

- any person who has the ability, capacity or willingness to accept or endure—and in some cases impose on oneself and self-propagate—varying degrees of struggle throughout one’s lifespan;
- be shaped by this struggle and, under certain conditions, overcome or rise above it;
- resulting in its elimination or reduction at a particular instance of one’s life-cycle, and a deep irreversible transformation.

In short, the above parameters can be conceptualized as *biopsychosocial* (to borrow the term from Engel’s 1977 biopsychosocial model of illness and well-being) *resilience*, echoing research trends in the sciences zeroing in on broad-spectrum resilience biomarkers that may enhance well-being overall (Giller, 2014; Lawrence, Phillips & Liu, 2007), as well as contemporary efforts to spread heroism training and foster psychosocial resilience. This is the capability of resilience across multiple spheres—the widespread biopsychosocial impacts of heroism asserted by Kinsella (2012) and the heroic body’s five-dimensional framework suggest the requirement of this type of resilience that is canvassed in the HO’s broader ecology. Heroism is the ultimate journey inwards; the prototypical definition of a hero is arguably the figure that is faced with the deepest and darkest conditions who should, by all accounts, be doomed to fail. Yet, they somehow rise up despite all odds and return (or are “resurrected” in transcendental terms); the very definition of resilience requires (a) adversity and (b) the capacity to return from it, as described by Nelson (2011).

The proposed definition suggests that there are multiple hero journeys within the lifespan of a single organism, with varying degrees of suffering, healing and transformation. The energizing property of the dynamical HO self-system denotes its “*operant intentionality*” in agreement with Merleau-Ponty’s (2012, as cited in Moya, 2014, p. 1) embodiment thesis. It is the premise of the embodiment of heroism thesis that behind every instance and story of human greatness is a deep hero’s journey founded on these principles of the HO and heroism-as-process, and grounded in a dynamic relationship between suffering and healing. Assessing the role inflammation and stress play on the immune system and how the organism reacts is thus likely to be critical to this enterprise. Medical research centers such as the Center for Inflammation and Regeneration Modeling (CIRM) at the McGowan Institute for Regenerative Medicine (2014) state as their central mission “optimizing the regenerative potential intrinsic to many organ systems … [and]
understand[ing] how we can facilitate the body’s ability to heal itself.” Understanding the “pivotal role of inflammation” is cited as central to realizing this goal (CIRM, 2014). Strategies for defining, teaching and fostering heroism in the everyday must therefore be centered on life coping and stress management skills to be effective and resonate with individuals and communities in a post-millennium era, and acknowledge the paramount importance of the complex ecology of suffering for HO self-systems and the realization of their inherent energizing properties.

Physical Intelligence, Embodied Agency and Leadership in the Ecological System of the Hero Organism

An important consequence of the epistemic function of narratives of heroism is the development of “emotional intelligence” (Allison & Goethals, 2014, p. 171). But can we extend this notion to the emerging science of physical intelligence (PI)? First, we must consider the question: why intelligence in relation to heroism? Allison and Goethals (2011, pp. 61–62) propose “the Great Eight” behavioral properties of heroism: “Smart, Strong, and Selfless, Caring and Charismatic, Resilient and Reliable, and finally, Inspiring.” “Smart” is indeed one of the properties directly related to heroism in this research. However, all the above characteristics suggest a degree of intelligence—researchers are increasingly recognizing the presence of multiple types of intelligences (Gardner, 1983).

As discussed earlier, the heroic body as biological organism is housed in the pre-conscious, the habitual body and the body schema. The role of PI therefore takes on a central role in the embodied discussion of heroism and the HO. Lobel (2014c) discusses how our “sensory-motor experiences,” including little considered aspects of our physical world such as color, temperature and surface textures, influence us in unimaginable and unexpected ways. Emergent understandings of these affective aspects and their likely role as determinants of heroism and the heroic body, call for the expansion of the function of hero stories and heroic action from the domain of emotional to physical intelligence. Empirical findings in PI that our everyday physical experiences can “have subtle but profound influences on our thoughts, perceptions, and judgments” (Lobel, 2014a, p. 4) are situated firmly in the history of embodiment literature. This provides a solid foundation on which to begin to appreciate the role of physical intelligence, or how our sensory and embodied reality affects our perception, cognition and so forth, in heroic sensibility and action.

In the embodiment of heroism thesis the conceptualization of heroic physical intelligence is situated in the ecology of organisms—this endeavor is accurately reflected in Turvey and Carello’s (2012) exploration of “Intelligence from First Principles” offering a set of “Guidelines for Inquiry into” PI. Turvey and Carello (2012) have been proponents of a more integrative brand of psychology for over 30 years and are joined by a stream of emerging thinkers. This is a transdisciplinary approach that seeks to unify culture and science in its conceptualization of the term “organism.” It is not a conventional concept of the organism reduced to an analysis of its biological properties (e.g. brain, neurons) as isolated “crude matter,” but rather as part of a larger dynamic eco-system, aptly mirrored in the Johnson (2008) based concept of the ecological body and Engel’s (1977) biopsychosocial model. The foundation of ecological psychology “is the question of how organisms make their way in the world (and not the historically popular question of how a world is made inside of organisms)” (Turvey & Carello, 2012, p. 4), suggesting an “organism’s journey.” Ecological psychology joins embodiment literature in the battle against the mind-body dualist tradition and attempts to ameliorate its damage:

It is clear that for the past 50 years, an alternative paradigm has developed within psychology that does not suppose that the brain is the seat of intelligence … Once James Gibson became disaffected with the dominant paradigm (which really dates to the 1600s …) and
questioned the assumptions on which it rested, a natural-physical approach to perceiving, acting, and knowing proceeded inexorably.

(Turvey & Carello, 2012, p. 25)

This could provide the foundation for the concept of the ecology of hero organisms, linking it to PI as explored preliminarily in Lobel’s (2014a, 2014b, 2014c), as well as Turvey and Carello’s (2012) work.

This highly embodied view of organisms is not limited to the study of the microcosm as applicable to traditional biology—it is one that views this microcosm in the context of the macrocosm it is situated in and how it functions within it. This is the core tenet of the embodiment of heroism thesis, the HO and its ecology. It reflects an “approach to intelligence that is physically grounded [emphasis added]” (Turvey & Carello, 2012, p. 3). Significantly, the ecological approach does not suggest that any particular set of organisms is privileged over another, and that there are “laws” underlying the behavior of organisms. Ecological psychology seeks to uncover these laws which “underlie intelligent capabilities” by offering “guidelines for how one might address intelligence not as the special province of the neurally endowed but as physically generic” (Turvey & Carello, 2012, pp. 3, 4). In line with this approach, heroism is proposed to be physically generic or embedded and embodied in the very makeup of organisms operating under baseline parameters, advancing the re-conceptualization of humans (and cells overall as the foundational unit of organisms) as hero organisms and dynamical self-systems.

Aside from the advancement of deep intelligence across emotional and physical parameters in the heroic embodied mind, the function of the HO is further illuminated by the critical connection between the concept of leadership and the resulting “inspiring … to action” (Allison & Goethals, 2014, p. 173) impact of the energizing function of hero narratives in the HLD, and agency in PI theory. Allison and Goethals’ (2014, p. 169) Dynamic is strategically framed around the notion of “heroic leadership rather than as simply heroism” based on their focal premise expounded in previous works (Allison & Goethals, 2011, 2013; Goethals & Allison, 2012) “that although not all leaders are heroes, all heroes are leaders.” Turvey and Carello (2012, p. 4) highlight that “Agency, scientifically explained, is the goal of ecological psychology: the manifest capability of all organisms to exhibit some degree of autonomy and control in their encounters”—this implies a degree of leadership exhibited in organism behavior, a critical property identified in heroism by Allison and Goethals (2014).

The key elements of agency according to Turvey and Carello (2012, pp. 4–5) are: “(a) variation of means to bring about an end (flexibility), (b) coordinating current control with emerging states of affairs (prospectivity), and (c) coordinating current control with prior states of affairs (retrospectivity).” By implication, we may speak of the flexibility, prospectivity and retrospectivity of the heroic body, and heroic action or agency—an agency which “is likely emergent from spontaneous self-organization” (Turvey & Carello, 2012, p. 5) of the dynamical HO self-system. These three properties roughly correspond with the three-fold working definition of “heroism-as-process” and as biopsychosocial resilience introduced in page 152: (a) any person who has the ability, capacity or willingness to accept or endure varying degrees of struggle throughout one’s lifespan (retrospectivity); (b) be shaped by this struggle and, under certain conditions, overcome or rise above it (prospectivity); (c) resulting in its elimination or reduction at a particular instance of one’s lifecycle (flexibility). This further suggests a high degree of operant intentionality and agency within an ecology of suffering, fostering the self-organizing quality of the heroic embodied mind and HO around disorder and discomfort to eventuate a state of transformation and healing.

Here, the call for a connection between the ecological psychological notion of PI and heroism takes the theory of different types of intelligences in relation to Allison and Goethals’ (2011) Great Eight traits of heroism to another level. All these traits are representative of agency, or the “manifest capability of all [hero] organisms to exhibit some degree of autonomy and
control in their encounters” (Turvey & Carello, 2012, p. 4). This embodied reading of multiple intelligences, the depths of which we are clearly only beginning to comprehend, places the epistemic function of the HLD in the advancement of knowledge center-stage in the HO and the ecological heroic body:

Characterizing knowing as coordinating organism and environment demands the kind of serious treatment of environment that is absent from the prevailing view of knowing as a property of mind. The emphasis on the ecological scale highlights the centrality of perception and action to defining the essence of effective, intelligent behavior. Characterizing knowing as a natural phenomenon is at once acknowledging intelligence as physical while dismissing business-as-usual explanations that are satisfied with borrowing intelligence as a means to explain it.

(Turvey & Carello, 2012, p. 7)

The lived heroic body is grounded in this deeper sense of embodied knowing that coordinates its actions as an organism within its broader ecology, in which knowledge and the epistemic function is physical. This is the lived heroic actor and heroic “body as subject, as experiencer, as agent” (Gallagher & Zahavi, 2008, p. 155) and, by implication, as leader. The heroic body’s perceptions and actions define effective and intelligent heroic behavior. The epistemic function of hero stories and heroism in the suggested advancement of physical intelligence and knowledge, and the energizing function with its thrusting of the HO into heroic action, agency or leadership, are therefore inexorably linked within an embodiment of heroism thesis.

For Turvey and Carello (2012) the ecological enterprise that seeks to uncover the laws that underlie intelligent capabilities is far-reaching—an approach to intelligence that is physically grounded is applicable not only to humans, but animals, micro-organisms, and even non-sentient beings. This tenet allows us to expand the concept of the HO to other living, and non-living organisms. As Turvey and Carello (2012, pp. 3–4) put it, “The change of focus from inside-the-head to outside-the-head … means that ecological psychology is not human-centric”—this driver of ecological psychology “as a psychology for all organisms” gives us permission to conceptualize hero organisms not only in the human species, but beyond, revealing a vast network of life grounded in heroic properties and evolution. We may thus begin to conceive of a radical notion of cells as physically intelligent entities that demonstrate heroic leadership. In her exposition of the “apparatus of bodily production,” Haraway (1988, pp. 592, 595) advocates that “Situated knowledges require that the object of knowledge be pictured as an actor and agent.” This three-dimensional, interactive and unorthodox view of our own body as an “active entity,” a “witty agent” and “a most engaging being” (Haraway, 1988, pp. 593, 594), can greatly contribute to the (re)telling of scientific stories of regeneration via the lens of heroic embodied intelligences.

Although this chapter does not outline what the specific base laws governing the HO might be, it is clear that ecological psychology and PI are strongly linked to the embodiment of heroism thesis, and can provide a platform on which we may begin to significantly contribute to the advancement of the field of heroism science in its transdisciplinary scope. This section provides a cursory indication of the room for collaborative research and joint inquiry between PI, heroism and heroic leadership; this is likely to culminate in innovative narratives of heroism and heroic embodied intelligence, as for example, a re-reading of the hero’s journey as a “complex, open thermodynamic system” (Turvey & Carello, 2012, p. 25). Given that we are still at the very early stages of heroism science, this allows researchers scope for creativity and flexibility in the frameworks that are yet to be developed. In this sense, the concepts of the HO as a dynamical self-system and the ecological heroic body provide pillars on which heroism science may join ecological psychology in this enterprise of deepening our knowledge of complex intelligent
behaviors and systems—one that is for many “obligatory and serves as an engine of discovery” (Turvey & Carello, 2012, p. 25).

Flow, Deep Embodiment and the Hero’s Journey—the Conditions and Mindset of Heroism-as-Process

Merleau-Ponty (1962, as cited in Smyth, 2010, p. 178) suggested, “the hero is someone who ‘lives to the limit … his relation to men and the world’.” Allison and Goethals (2014, p. 167) concur, noting, “The human tendency to bestow a timeless quality to heroic leadership is the culmination of a pervasive narrative about human greatness [emphasis added] that people have been driven to construct since the advent of language.” We can thus surmise that hero stories are stories of peak human performance, activity and agency. It is interesting that the build-up of momentum in the study of heroic leadership and heroism is coinciding with the burgeoning of emerging advanced narratives in optimal human functioning. Perhaps the most prominent narrative of peak performance pervading both science and culture is the Flow Genome Project (www.flowgenomeproject.co). Co-founder Steven Kotler has reinvigorated a field of research that has had a history of almost 150 years. Drawing on Csikszentmihalyi (1990) and over 10 years of research, Kotler (2014a, 2014b) explores the mechanics of flow in its most heightened manifestations in adventure sports. In particular, Kotler (2014a) investigates how cutting-edge technologies are facilitating an unprecedented understanding of the mechanics of the flow state at the neurochemical level.

This is an innovative enterprise that aims to “hack” the science behind this elusive “quasi-mystical” state and bring it into the everyday (Kotler, 2014b), similar to contemporary efforts centering on the notion of the banality of heroism. Kotler (2014b) notes that traditionally the activation of flow has involved the presence of extreme risk and danger—this provides a critical link between the instrumental presence of danger in hero stories (Allison & Goethals, 2014), risk in contemporary understandings of heroism (Anderson, 1986; Franco et al., 2011; Eagly & Becker, 2005; Stenstrom & Curtis, 2012; Weinstein, 2012), and the mechanics of peak states of human performance. Further, Kotler (2014a, pp. 97–98) notes that “In the world of philanthropy, helper’s high is the term for an altruism-triggered flow state, literally brought on by the act of helping another.” Although altruism may not be a definitive aspect of or synonymous with heroism, with recent empirical data indicating that “that there are fundamental perceived differences between heroism and altruism” (Franco et al., 2011, p. 108), there is still debate and significant areas of overlap (e.g. see Shepela et al., 1999). The enduring centering of heroic behavior in relation to a surrender or “service” to an “other” (Campbell, 1988; Franco et al., 2011, p. 101), whether that be a person, a group, an ideal, or something else, spells a critical connection between selfless flow states and heroism. The premise of emerging research is that if the mastery of flow can be realized without the presence of extreme physical risk, this could result in a critical “paradigm shift” on an evolutionary scale, marked by a “whole-body transformation” in the human species (Kotler, 2014a, pp. 24, 74). We can thus begin to reconceptualize heroism and the hero’s journey as peak flow states and key evolutionary processes.

The notion of heroism as an evolutionary process geared towards achieving a peak state of human performance or “transformations of consciousness of one kind or another” (Campbell, 1988, p. 155) is in direct alignment with the HLD’s energizing function of hero narratives in advancing human evolution and development, as well as increasing agency and PI in the HO as part of the embodiment of heroism thesis. This “common theme of an expanded consciousness” in transformation has been described as “an evolutionary process” for centuries (Wade, 1998, p. 714). The process of personal transformation, like the hero’s journey, “is circular and expanding. Each transformation brings the individual to higher levels of being,” through the confronting of pain, struggle and reordering of identity (Wade, 1998, p. 714). This is a view of every individual
as a hero-in-process or hero-becoming, suggesting heroism’s evolutionary property from a psychosomatic standpoint given the deeply experiential and complex nature of the transformative journey.

How can cutting-edge flow research enhance our understanding of heroism as a deeply embodied, energizing and action-oriented transformative developmental process? Kotler, who went through a radical transformative journey of this type curing himself from a debilitating autoimmune disease, sets out to demonstrate that the reformation and transformation of neural networks lies at the heart of this process. Kotler (2014a, pp. 65–69; 2014b) outlines the specific neurochemicals involved in the flow process, the “Big Five” (”dopamine,” “norepinephrine,” “endorphins,” “anandamide,” and “serotonin”), which can have profound healing properties and enhance the immune system when released on a regular basis. This is a bona fide and very specific state of embodied consciousness with precise parameters and descriptors, which have the capacity to rewire and transform the self and being—this aligns with the conceptualization of the hero’s journey as grounded in the lived heroic body. In an evolutionary sense, it is the hero’s journey from “sub-par” or sub-optimal, to normal, to super-normal or “super-human.” Kotler (2014b) joins emerging understandings of the embodied mind and neuroplastic inspired narratives by stating that “the brain can radically alter consciousness to improve performance.” Many of our publicized heroes are successful leaders, consistent with Allison and Goethals’ (2014, p. 167) statement that the “timeless quality” attributed to heroic leadership is rooted in “a pervasive narrative about human greatness.”

Kotler (2014b) outlines the intellectual tradition of flow research—the broad consensus is that this “ubiquitous” state can manifest in anyone “provided certain initial conditions are met,” once again mirroring Franco et al.’s (2011) hypothesis of the banality of heroism. Since 1990 neurobiology with advanced imaging of the brain has been brought into the conversation to better understand and “see” this state of consciousness, contributing to the literature of embodied cognition. But perhaps the most crucial connecting rod of flow to heroism is struggle—struggle, pain and suffering in its varying degrees is the primary activator of the transformative flow process and its evolutionary cycle (Wheal, 2013). This is the ultimate state of human performance, when “life and limb is on the line” (Kotler, 2014b); a quality that also appears to be the core instigator of heroism, heroic action and the hero’s journey, and entrenched in the heroic body's ecology of suffering. In light of the above, it is evident that the renewed interest in flow research, the focus of which is precisely the study of human greatness and its unique properties, stands to offer critical clues to the embodied state of heroism and the heroic embodied mind.

Franco et al. (2011, p. 100) propose that everyone is “capable of heroism with the right mindset and under certain conditions”—what are this mindset and those conditions? The Flow Genome Project is premised on the notion that “flow states have triggers; these are pre-conditions” (Kotler, 2014b). Kotler (2014b) identifies three keys to unlocking this potential: “deep embodiment,” “high consequences” and “rich environments.” Aside from deep embodiment, high consequences and rich environments also lend directly to a critical conflation between heroism and flow in the presence of a degree of risk which is instrumental to heroic action. Rich environments result in heightened risk, awareness and perception. This precondition of flow directly correlates with Zimbardo’s (2015) call for the development of “situational awareness” as part of our heroic training and the primacy of “opportunity” (Zimbardo, 2011) for the activation of heroism; notably, situational awareness is also a key property in the state of flow (Kotler, 2014a, p. 72), as is “affordances (J. J. Gibson …): organism-specific opportunities for action encountered in the environment” to ecological psychology (Turvey & Carello, 2012, p. 5). Not focusing in these heightened environments can pose a threat to our physical and mental well-being, and at extremes, survival. We can thus infer that rich environments activate the flow embodied state of heroism and facilitate quick response time in
the HO for situations that call for heroic action. Learning to recognize these opportunities and environments ultimately lies in the “natural purposiveness” (Merleau-Ponty, 1964, as cited in Smyth, 2010, p. 179) that is exemplified in the astutely trained habitual heroic body.

These powerful synergies among the hitherto disparate fields of embodiment, heroism and heroic leadership, flow, PI, ecological and mainstream psychology, systems theory, and potentially many more, make a strong case for the possibility of joint research ventures between the Flow Genome Project, The Resilience Project searching for genetic heroes, and a “Heroic Body or Hero Genome Project”1. These may help to identify synergies between the Big Five, Great Eight, PI in metaphor, the embodied state of heroism and other mutually beneficial research avenues. The cursory linkages outlined above between flow research, embodiment theory and heroism lead us to consider: can we apply these triggers, and demonstrate their presence and critical importance in specific case studies to support the notion of heroism as a distinct state of embodied consciousness or flow?

These emerging connections directly lead into the idea that we can manipulate the environment to induce the Big Five neurochemicals of flow states, and by implication instill heroic action and heroic consciousness, thereby altering our cellular and genetic profile. This is dynamic heroism-in-process, and the neurobiology and culture of the HO and its ecology. By uncovering the inter-relationship between the pre-conditions of the flow state, and the mindset and conditions of heroism as a peak state, we may begin to expose the laws governing the physical and emotional intelligence of hero organisms and their ecological properties, which are embodied and physically generic to all of us. Decoding and “hacking” heroism alongside flow can provide invaluable insights for the field of heroism science in their emerging role as transdisciplinary sciences of peak states of human performance, and achieve Merleau-Ponty’s (1962, as cited in Smyth, 2010) highest end of lived embodied heroism with the absolute self-realization of humanity and its accession to the universal.

Heroism: The Final Frontier

This chapter has attempted to demonstrate heroism as embedded and embodied in the everyday. By positing heroism as a distinct state of embodied consciousness comprising specific parameters we may begin to appreciate and dissect its complex architecture. It is proposed that the ubiquity, and concurrently, elusiveness of the phenomenon lies in that there is never a complete absence of heroism, but rather low, middle or peak expressions—every individual is a “hero-in-waiting” (Zimbardo, 2015) demonstrating various levels of biopsychosocial resilience at any given point, as an organism embedded in a larger ecological structure. This transdisciplinary framework of heroic transformation aims to reconceptualize cognitive and cellular agents (and therefore potentially both human and non-human agents) as hero organisms and dynamical self-systems capable of demonstrating fluidity, leadership and heightened organizational awareness in times of crisis and stress. This is a system in which everyone is biologically, psychologically, socially and spiritually equipped to be a hero. For Franco et al. (2011, p. 112) “the question of what the term “hero” will mean for this generation is yet to be answered.” Zimbardo’s (2006) idea of the banality of heroism, originally presented in the Edge in response to the intellectual challenge “What is your dangerous idea?” is precisely that—a provocative notion which could have wide-reaching and lasting impacts for this generation, and generations to come. If these vibrant emerging research linkages are any indication, the central question posed by the authors (Franco et al., 2011, p. 100) as to whether heroism is “fundamentally ordinary and available to all of us” may well be the holy grail of our species.
### The 5 Properties of the Heroic Body

<table>
<thead>
<tr>
<th>Biological Organism</th>
<th>Ecological</th>
<th>Social</th>
<th>Cultural</th>
<th>Phenomenological/Transrational</th>
</tr>
</thead>
</table>

#### Functions of the Heroic Body

1. **Epistemic:**
   - Reveals deep truths
   - Reveals paradox
   - Develops emotional and physical intelligence

2. **Energizing:**
   - Heals psychic and physical traumas
   - Inspires us to heroic action
   - Promotes biopsychosocial growth, regeneration and transformation

3. **Ecological:**
   - Manages the regulation of suffering and healing, or crisis and order, within the broader ecology of the hero organism

### Processes of the Heroic Body and the Heroic Embodied Mind: Heroism-As-Process

| Conditions for the activation of the embodied state of consciousness of heroism and the heroic embodied mind |
| 1. Deep embodiment |
| 2. High consequences, risk, crisis, struggle, trauma, stress, inflammation (physical, mental and emotional) |
| 3. Heightened or dynamic environments, fluidity and change making the occurrence of suffering and trauma high |

| Mindset of the embodied state of consciousness of heroism and the heroic embodied mind |
| 1. Function(ality) |
| 2. Self-organization |
| 3. Physical Intelligence |
| 4. Flow |
| 5. Agency, heroic leadership, operant intentionality |
| 6. Heightened perception, sensory experience, emotion, heroic action |

### Consequences of the Heroic Embodied Mind and Heroic Agency: Deep Embodied Transformation and Biopsychosocial Regeneration

1. Heightened embodiment and embodied engagement with oneself and the everyday – the lived heroic body
2. Heightened heroic flow state – heroism as a peak state of experience, human performance, expanded consciousness and evolutionary process
3. Heightened physical and emotional intelligence, or heroic embodied intelligence
4. Heightened stress management, resilience and coping abilities
5. Heightened agency or heroic leadership:
   - Flexibility
   - Prospectivity
   - Retrospectivity
6. Heightened experiential based knowledge and wisdom, or embodied knowing
7. Heightened personal (and eventually social, by virtue of the hero’s actions) growth
8. Heightened state of risk and dis-ease followed by a heightened state of well-being and pathological health.

### Advancement of Biopsychosocial Resilience = Embodied Heroism

**Table 8.1 The Parameters of the Hero Organism, the Heroic Body and their Ecological Landscape**

Sources: a transdisciplinary framework drawing from Allison and Goethals (2014); Engel (1977); Kotler (2014a, 2014b); Merleau-Ponty (1962, 1964); Turvey and Carello (2012)
Table 8.1 outlines these preliminary connections and the transdisciplinary parameters of the epistemological concept of the hero organism, as well as the functions, processes and consequences of embodied heroism.

References


The Hero Organism


161
Olivia Efthimiou


Conclusion

This thesis has explored fruitful avenues for collaboration between heroism and various disciplines, and their conceivable impacts. Emerging research findings of the phenomenon, facilitated by the advancement of transdisciplinarity in academic research, are indicative of the profound evolutionary, intergenerational, cross-cultural and biomedical impacts of a rigorous analysis of heroism. These will pave the road for opportunities in diverse and collaborative future research, as outlined throughout the thesis, and especially in Chapter 7 as a broad-spectrum overview.

Avenues discussed in this thesis included:

- research and teaching practices (Chapters 1 and 2);
- wellbeing, sustainability, leadership and education (Chapters 3 and 4);
- digital humanities, playful participation and wellbeing (Chapter 5); and,
- workforce studies (Chapter 6).

Others, such as the emerging field of neuroplasticity and the classic nature/nurture debate (Chapter 7), lend themselves naturally as bridges between the humanities and the sciences. Significant developments would include the development of a robust methodology for the psychological testing of heroism, and the advancement of medical solutions for the promotion of psychosomatic wellbeing if a biological basis can be isolated for its regenerative properties.

It is hoped such shifts in thought across disciplines will promote intergenerational wellbeing and increased capacity to regenerate following exposure to trauma – physical, social and psychological.

Key Findings

As set out in the introduction, this thesis has sought to:

(a) identify common narrative structures in culture, biology and psychology, and strategies for finding common ground between them;
(b) contribute to the broader discussion of developing critical, multi-perspective and dynamic wellbeing frameworks;
(c) revisit and emphasise the importance of story and metaphor in the early 21st century; and,
(d) explore the presence of heroism in specific applied contexts through qualitative and ethnographic enquiry, and case studies.
The summary of transdisciplinary findings from each of the thesis chapters presented below addresses the specific domains in which knowledge has been advanced against these four areas, and the core fields of enquiry. This has, in turn, produced a layered answer to the thesis’ initial research question; that is, an appreciation of how a parallel reading of cultural, biological, psychological and social narratives of human behaviour may enhance our understanding of heroism as a persistent phenomenon in lived experience in contemporary Western societies:

Chapter 1, “Heroism Science: Frameworks for an Emerging Field” has offered a preliminary sketch of heroism science within the broader history of science. The aim of this work was to serve as a blueprint for the field as a whole, yet leave it open to disciplinary flexibility. The framing of the chapter within emerging theories and methodologies of multiple disciplinarity has made a distinct contribution to contemporary heroism studies. It has set out initial parameters on how the field can contribute to the history of science and its evolution into a liberating and philanthropic science, whilst acknowledging the historical tensions between myth and science. On a more practical level, it argued for heroism as a prime case study for the unity (or consilience) of knowledge and trans-, multi- and inter-disciplinary research as a means of developing creative and enduring solutions for real-world problems. This real-world creative problem-solving was revisited in Chapters 3, 5 and 6.

Though optimistic in its positing of heroism as a prime case study for the enterprise of consilience, this chapter acknowledged that any multiple disciplinary research must address its broader implications, the contextualisation of the history of its tensions and the possibility of integrating the knowledge cultures employed. The two cultures debate and the prospect of the unity of knowledge lies at the heart of heroism science as an emerging multiple disciplinary field. If a consilient narrative exploration of heroism is to be attempted then it must consider the division between the sciences and the humanities historically, and emerging evidence for their convergence.

Chapter 2, “Breaking Disciplinary Boundaries: Heroism Studies and Contemporary Research Practices” provided a lens into the practical and lived insights of the theoretical two cultures debate. The compatibility of the hero’s journey narrative structure with biology indicated in this study is a promising platform for ameliorating the split between these competing knowledge cultures, and re-introducing diverse ways of knowing in academic research. The qualitative data also suggested
important similarities in the way heroism and the hero's journey is understood from a biological and psychological perspective. A number of participants from both the sciences and the humanities in the study supported the potentially widespread benefits and impacts of heroism research in academia and communities. This is in line with the premise introduced in Chapter 1 that heroism, as a philanthropic science, can serve as a sound strategy for solving real-world cases.

Chapter 3, “Heroic Ecologies: Embodied Heroic Leadership and Sustainable Futures” has discussed heroism as an embodied system of leadership and wellbeing. It has presented an embodied reading of heroic leadership and its sustainable development across five stages, in keeping with the notion of heroism science as an embodied science in Chapter 1. The introduction of the idea of heroism as a broader nascent social movement was contextualised in the development of a novel framework for the assessment of its impacts in case studies of contemporary heroism education and promotion, recently established non-profits the Hero Construction Company, the Heroic Imagination Project and Hero Town Geelong (Australia). Its aim was to demonstrate the breadth of spheres of activity or “heroic mobilisers” linked to the common cause of raising awareness of heroism, effectively changing the status quo, and improving the human condition by using heroic consciousness raising as a tool. The various parts of the multi-faceted movement are joined in their common goal of instilling and bringing to the forefront of social consciousness the banality of everyday heroism (Franco and Zimbardo 2006). The case studies presented offered a cursory map of the contours of this movement, the role of key actors within it, its potential widespread impacts and main challenges ahead. The chapter supported the view that the broad sociocultural and political manifestations and impacts of this movement deserve further systematic study.

Chapter 3 represents the first academic work to propose an ecosystems approach to heroism studies, as well as the development of a biopsychosocial model of heroism. These are set to have applied, widespread and holistic health benefits in clinical, pedagogical and other healthcare settings. This transdisciplinary heroism framework drew on the following fields of enquiry: leadership embodiment, sustainable development, ecological psychology and wellbeing. A core outcome of this chapter was the conceptualisation of the Heroic Leadership Embodiment and Sustainable Development (HLESD) model. This is the first framework to critically discuss the actual (and potential) impacts of the heroism movement in depth,
following recent literature touching on indications of this phenomenon (Allison 2015; Franco et al. 2016).

Next, Chapter 4, “Heroism and Eudaimonia: Sublime Actualization through the Embodiment of Virtue” embarked on an in-depth study of the positive and narrative psychological literature on happiness and wellbeing, their inextricable relationship with suffering, and the latter’s critical role in the transformative heroic journey. Trauma, whether mental or physical, is emerging as an essential precursor to growth, with the degree of struggle and risk experienced figuring as potentially determinant of the capacity for heroic transformation. Chapter 4 has provided a new perspective on wellbeing through a little explored dimension of heroism – the downsides of heroism, the psychophysical costs of heroic acts in the everyday, and their necessity for true transformation. Insights gained from this work suggest that a “gradients or shades of heroism hypothesis” is in order, in which varying degrees of suffering and growth are diffused in the everyday. This concept was revisited in Chapter 7.

Chapter 4 argued that the inherent paradoxical nature of heroism means that personal and collective efforts toward heroic eudaimonia are intimately bound to the tragic. It was proposed that suffering and the transcendent realisation of ours and others' mortality is the pathway to heroic virtue and happiness. This paradox was proposed to extend to the coalescence of hedonism and eudaimonia in heroic virtue: transcedent hedonism and heroic actualization were defined as “wise pleasure” and satisfaction in a life or set of actions well executed, even if there are steep costs. This evolved sense of hedonism positioned heroic eudaimonia in the realm of the sublime, marking the encounter with moments of beauty/terror, life/death as pleasurable. This is a form of hedonic pleasure grounded in the personal embodiment of ethics and the achievement of the highest good for the other.

In this chapter, the development of a framework for heroic eudaimonia centred on the integration of these and other traditionally competing notions of happiness and the good life is proposed, whilst acknowledging the equal value of the outcomes and processes of heroism. The chapter is the first work in the literature to provide a summary of hero/eudaimon virtues for further conceptual and empirical discussion.

Chapter 5, “Heroic Play: Heroism in Mindful, Creative and Playful Participation” has addressed the increasingly prevalent role of digital media in the spread of heroism as a contemporary social movement discussed in Chapter 3. This applies to both
lay and intellectual engagement with the concept of heroism, and other pro-social ideas, and as a space for heroic mobilisers to communicate research and community developments. The chapter specifically looked at how three core concepts in emerging heroism literature can inform a reading of creative modes of play as heroic modes of play: the heroic imagination (Franco and Zimbardo 2006), the cyberhero archetype (Klisanin 2010, 2012) and collaborative heroism (Klisanin 2015, 2017). Chapter 5 has provided a summary of the requirements for the heroic engagement with technologies, and distinct modalities of heroic playful participation. It has offered preliminary insights into the suitability of creative, experimental, transdisciplinary and innovative methods in the study of heroism.

This chapter presented an alternative to contemporary psychological research on heroism focusing on the quantitative analysis of perceptions and influence of heroic behaviour on third parties, as well as one-time acts in emergency situations, through the direct collection of life stories. It supported the value of the application of story for future research in this, and other emerging areas, to yield more accurate and in-depth qualitative (and quantitative data). Future research that looks at the specific properties of heroic play at greater depth will illuminate the frequency and complexity of the situational aspects of play and creative communication in heroic spaces, the heroic imagination, the cyberhero archetype and collaborative heroism.

Chapter 6, “Creative Careers: A Heroic Leadership Perspective” has explored the presence of heroism in creative practitioners’ career experiences, through qualitative enquiry into their career and life stories. The critical analysis on heroic leadership here has provided a new perspective on what causes people to move forward, rather than what stops them from failure, signalling career identity as a further fruitful space of enquiry in the emerging field of heroism science. This has extended knowledge into the psychological, social and physical properties of heroism, and their value in fostering wellbeing and sustainable futures. Through an examination of creative practitioners’ responses to open questions in a workforce survey, it has assessed the alignment of the central functions of heroic leadership – epistemic, energizing and ecological – with practitioners’ lived experiences. It was concluded that heroic leadership is an important skillset for helping workers in the creative industries, and potentially other graduates and job seekers, better cope with the increasing precariousness of the 21st century job market.

Career development and employability are undeniably important; Chapter 6 highlighted why this area in particular can gain from heroism, as opposed to other
challenges in life. It touched on connections between heroic leadership, post-traumatic growth, self-regulation, self-efficacy and transformation, and how risk – as a marker of the hero’s journey – could be a precursor of, and indeed activator for these. This chapter is indicative of intersections between pre-employment expectations and post-employment realities, in respect of the degree of heroic leadership skillset development.

In keeping with the premise of the thesis that heroism is accessible to all human agents in everyday settings, this work has presented another applied setting in which the biopsychosocial, and epistemic, energizing and ecological components of heroic leadership can assist people in finding their (career) path in the world. It aligns with the aims of the thesis as a practical enterprise of applying heroism, the hero’s journey and heroic leadership to developing critical multi-perspective wellbeing frameworks. These can be applied to real-world cases or issues in 21st century societies that require novel interdisciplinary solutions. Finally, this chapter has extended thinking in existing literature that views career development as a hero’s journey, specifically in the context of creative careers, as well as the concept of career as a heroic calling discussed in emerging literature (Dik, Shimizu, and O’Connor 2017).

Future research on the impacts of heroic leadership on career development will need to address the study’s limitations. The primary limitation was that the survey instrument was not specifically developed for the assessment of the heroic leadership framework. Therefore, conclusions derived from this study are only indicative. In addition, this meant that assessing the benefits of exercising heroic leadership was not possible. This study is also limited to identity formation in creative careers – future research will need to cross-validate results against cohorts in other careers, and in particular those in non-cognate disciplines (e.g. sciences, psychology, social sciences) to provide robust indications of the value of heroic leadership for a wider range of careers.

As the final chapter, Chapter 7, “The Hero Organism: Advancing the Embodiment of Heroism Thesis in the 21st Century” has redressed in depth the neglect of the critical role of physicality raised in all previous chapters, and the aim of the thesis to define heroism as embedded and embodied in the everyday. By expanding on heroic transformation in cutting-edge scientific narratives such as neuroplasticity, it has identified the potential biological and broader embodied dimensions of heroism. This chapter has served as a survey of emerging and established discourses that could
be highly relevant in promoting a deep and integrative understanding of heroism. A particular focus was placed on the central role of trauma and growth in the heroic experience, discussed in Chapters 4 and 6. Relational ontologies within philosophy and psychology were considered in the investigation of organisms as agents. Theories across the biological sciences that demonstrate agency and embodiment facilitate the cross-fertilisation of different epistemologies. Tying in these discourses with the psychosocial aspects of the literature led to a discussion on the potential impacts on the traditional nature/nurture debate. This extended to how this could be revised in light of a consilient reconceptualisation of human organisms as “hero organisms” – whilst acknowledging the contested understandings of the term “organism” – and the mapping of their ecology.

Chapter 7 showcased that, in the context of heroism, contemporary empirical research signifies a pivotal interdisciplinary moment. This is a critical period that is representative of a positive shift in the study of heroism as an intellectual pursuit, from the historical stronghold of the humanities (e.g. in ancient history, mythology, popular culture, fiction) into the middle or third culture of psychology, and more recently educational psychology and innovative pedagogy. However, in light of heroism being a naturally occurring interdisciplinary phenomenon that is diffused in the everyday and challenges historical dualities (as evidenced here, and in Chapters 1 and 2), this shift might not be wide enough. It is proposed that the notion of heroism needs to be looked at from a “360 degree angle” to gain a full appreciation of its scope. It is vital that emerging scientific data be systematically brought into the conversation, in order to capture and take full advantage of this significant interdisciplinary momentum building in the study of heroism.

Limitations and Future Directions for Heroism Science

The limitations of this thesis flag the need for further systematic research in key areas explored:

- As noted in the Introduction the thesis’ transdisciplinary methodology, though comprehensive in its reach, does not make it possible to delve in greater depth into each area explored.
- The theoretical frameworks and definitions developed here will require systematic study to assess their value. Evidence-based research, ideally with mixed methods, will be imperative particularly in relation to the biological, psychological and social benefits of heroism proposed. It will also
be crucial to assess the contexts in which the frameworks operate most effectively, where they are less effective, and why.

Some of the key dimensions of heroism and the hero’s journey in empirical analysis not covered in this thesis will need to take into account the vast complexity of heroism as an inherently interdisciplinary phenomenon, including:

- Gender.
- Power, money, socioeconomic status.
- Altruism versus non-altruism.
- One-time versus long-term acts.
- Ancient versus modern myths.
- Eastern versus Western cultures/mythologies.
- Heroism versus anti-heroism.
- Oral, visual and/or written stories.
- Complete versus incomplete hero journeys.

Other challenges and future research trajectories for the field will involve:

- The need for collection of an adequate sample of qualitative and ethnographic data for the testing and development of heroic leadership.
- The development of a biopsychosocial instrument of heroism for use in longitudinal, cross-cultural and other types of psychological research, and identification of epigenetic dimensions.
- The need for in-depth assessment of the sociocultural aspects of heroism and its social construction, particularly from a critical psychological perspective which adopts an interdisciplinary approach distinct from the person-centred doctrine of mainstream psychology.
- The collaborative investigation of the cellular, genetic and other biological impacts of the transformative heroic journey, and the potential development of holistic biomedical cures utilising the regenerative properties of heroism.
- The cross-cultural synergies and divergences of the phenomenon in its contemporary manifestations, and eventually across historical periods.
- The investigation of the evolutionary dimensions of heroism in collaboration with scientists, extending to primate behaviour and potentially cellular organisms.
- Interdisciplinary work on the study of heroism beyond the human organism, into the animal kingdom; and opening up the investigation of the topic
beyond the biological sciences (e.g. systems theory) and other humanities fields (e.g. heritage movement and theory, digital humanities) for the generation of new research questions.

- The development of person-centred policies in collaboration with government, not-for-profits, academia and the community based on heroic leadership research, and the application of this research for organisational transformation.

- Development of a biopsychosocial taxonomy of contemporary heroic profiles and its cross-correlation with recently generated taxonomies of heroism in the psychological literature of the emerging field using the same (or similar) method (Allison and Goethals 2013, Franco, Blau, and Zimbardo 2011, Goethals and Allison 2012).

In summary, the multiple disciplinary study of heroism science is likely to benefit or interest the following groups:

- Cross-disciplinary theorists interested in developing and applying consilient innovative models and ethnographic methodologies in their research.

- Media critics and cultural theorists in understanding the impact holistic and responsible reporting of hero stories, and narratives more broadly, may have on the public as educational tools for dissemination of this emerging knowledge.

- Clinicians working in counselling practice, in particular those with patients dealing with mental and physical trauma in their care (such as PTSD).

- Medical practitioners, in assisting them to provide more holistic care for their patients via a deeper appreciation of their personal journeys and the inter-relation between their physical ailment and mental state.

- Researchers in the medical and genomics fields seeking to work with cultural knowledges, to promote a deeper understanding of disease and wellbeing in whole-of-lifespan terms. This could lead to collaborative future systematic research on the link between the biological regenerative properties of heroism at the genetic/cellular and inflammation/stress management levels, longevity and psychosocial wellbeing. This, coupled with research being conducted by other medical scientists on preventative and regenerative medicine (such as telomere...
extension, super-proteins and high-regeneration genes), may assist in working towards holistic medicinal pathways and broad-spectrum resistsants for combating a wide range of diseases by the same base elements and life strategies.

- The field of science communication – science professionals working on communicating complex scientific concepts to the broader public and demonstrating their relevance to everyday human behaviours and concerns.
- The broader public, by contributing to a wider awareness of the importance of story and narrative to wellbeing and developing creative problem-solving, stress management and life strategies.

Some of the research questions that this thesis aims to generate future impetus and funding in, in order to address the interdisciplinarity and complexity of wellbeing in relation to heroism across the individual, relational and collective levels in both science and culture, are:

- How is heroism expressed in contemporary Western society broadly, and in particular present-day Australian communities as revealed by empirical research, i.e. what are its predominant contexts, descriptors/features, unique challenges and function in our society?
- How could the recognition of the importance of heroic behaviour and the fostering of the heroic imagination function as effective tools for the promotion of individual and community wellbeing and resilience, particularly in times of social crisis?
- How can recasting new discoveries in DNA and cellular function as language or narrative assist our understanding of heroism, as well as other behavioural constructs?
- How are genes and the environment seen to interact as inhibitors or facilitators of heroic behaviour and hence contribute to its varying forms and expressions in society?

The following two sections discuss in greater detail overarching frameworks that may guide the field of heroism science as a transdisciplinary, integrative and story driven science focussed explicitly in service to humanity, drawing on key insights from this thesis.
Heroism Science Futures 1: Toward a Biopsychosocial Model of Heroic Wellbeing

This discussion provides the initial foundations for a biopsychosocial model of heroism, that is, the strategic focus of this thesis on the biological, and its interrelationship with the psychosocial. This research demonstrates the continued relevance and impact of the biomedical model, but with a twist – it signals its evolution from, and revolution against its roots in disease and pathological illness.

The need to address the biological dimension as the most sidelined element of the biopsychosocial properties of heroism is a critical priority. The biomedical, ethical and broader social implications of finding a genetic and biological basis for heroism, and their conceivably wide-reaching impacts are indisputable. This will be facilitated by the insights gleaned from pioneering biomedical endeavours such as the Resilience Project (as discussed in Chapters 1 and 7). Combined with an appreciation of the mind-body impacts of individual and collective hero journeys, and heroic self-leadership, these stand to be highly complementary to an embodied reading of heroic leadership and advanced knowledge of its somaesthetics in theory and practice.

In summary, the benefits of embodied heroic self-leadership discussed throughout the thesis are far-reaching and felt across a number of areas of wellbeing – the core results are deep embodied transformation and biopsychosocial regeneration. Below are some of the anticipated consequences of heroic leadership wellbeing:

- Heightened awareness of life’s deep truths.
- Heightened embodied engagement with oneself and the everyday – the lived heroic body.
- Heightened physical and emotional intelligence, or heroic embodied intelligence, and cognitive ability.
- Heightened stress management, resilience and ability to cope with crisis, trauma and paradox.
- Heightened agency or heroic leadership:
  - Flexibility.
  - Prospectivity.
- Retrospectivity.

- Heightened experiential based knowledge and wisdom, or embodied knowing.

- Heightened personal (and eventually social, by virtue of the hero’s actions) growth.

- Heightened state of risk and dis-ease followed by a heightened state of wellbeing and pathological health.

- Heightened capacity for communication and connectedness at the personal, relational, collective, global and cosmological systems of wellbeing and interaction.

Despite the debate surrounding it (Ghaemi 2009; McLaren 1998), the biopsychosocial model will undoubtedly be highly relevant to any exploration of heroic leadership as a pathway to wellbeing, as suggested by emerging research on heroism (Allison and Goethals 2014; Franco and Zimbardo 2015; Kinsella 2012; Kinsella, Ritchie, and Igou 2015a, 2015b). However, given heroism’s deep complexity, we will need to look beyond a biopsychosocial reading in our consideration of heroic leadership wellbeing to account for the many other facets of heroism, such as the “moral, philosophical, cultural, cosmological, and spiritual” (Allison 2015, 4).

As criticisms suggest, the biopsychosocial model should be used as a baseline and point of departure for the development of more robust and dynamic future models of wellbeing, discussed in Chapter 3. The ecological function of heroic leadership – perhaps more so than any other function – and the complex systems nature of the hero’s journey (Monteiro and Mustaro 2012), are set to pave the way for revealing what heroism, the hero’s journey and heroic leadership research can offer to the development of transdisciplinary models of wellbeing as set out in this thesis.
In his discussion of science as a “distinctive component of human culture,” Grobstein (2005, 13) suggests that it “is not about stability but about change, because it is not about knowing but rather doubting what is and wondering might be.” Even in its doubting of knowledge, this permanent healthy scepticism in science as story telling and story revising indicates a fundamental engagement with the process of knowledge-making and knowledge acquisition. The epistemic function of story is at the heart of science, as story facilitates learning and knowledge no matter what its form. As we have seen, scientific enquiry and hero stories are inexorably joined in their inherent epistemic function, property and agenda. Both science and the hero’s journey are at their very core broad “form[s] of exploration” (Grobstein 2005, 12). A science of heroism must necessarily engage with a critical reassessment of science itself and generate a new mode of knowledge that integrates the humanistic and scientific ideals, based on their common epistemic function rooted in both story and science.

Areas in which further research would be useful in advancing this enterprise not covered by this thesis, include:

- **Exploring heroism science as an open and participatory field.** This corresponds with the definition of heroism science as embodied science, and the advancement of a critical, philanthropic science. In this context we become active shapers and builders of the kind of heroic world we want to live in, with technoscience by our side as enabler for promoting positive growth for everyone involved.

- **Developing epistemological and methodological frameworks for heroism science as a non-linear science.** This is likely to involve the employment of circular exploratory models of science as proposed by Grobstein (2005) that complement the notion of a diverse and permanently unfolding story of humanity. The critical link between this new model of science, the hero’s journey and knowledge-making processes, results in the contributing role of heroism science to the reframing of science as “a continual and recursive process of not only story testing but also story revision” (Grobstein 2005, 6). This involves the acknowledgement of heroism as complex, dynamic and dependent on numerous variables and interactions across multi-level
systems. It is also a recognition that heroism cannot be fully or clearly defined and observed by conventional means of scientific enquiry, due to the very nature of heroism as a transrational phenomenon.

- **Investigating the reframing of science with heroism science as story telling and story revising.** This may be achieved by aligning with other emerging fields in science studies such as science communication, and science professionals working on communicating scientific concepts to the broader public and demonstrating their relevance to everyday human behaviours and concerns.

**Concluding Remarks**

To answer the question “what does it mean to be a hero?” is to answer the question what it fundamentally means to be human. And herein lays the bold claim: heroism is an indispensable aspect of survival for all organisms, from the very basic, to the more complex. Heroism taps into and emanates from a timeless consciousness which is fundamentally linked to our most ancient history. This may be something shared by all organisms on this planet – humans, monocells, animals, plants and so forth. The study of heroism has the potential to radicalise and revolutionise what being human is, and the origins of life itself. We must begin to conceive of the magnitude of the heroic as it relates to all facets of experience, from the mundane to the sublime.

Indeed, the significance of the heroic travels far beyond our immediate purview – it permeates yet exceeds the material, the sensory, the intellectual, the conscious and the subconscious. This is a collective enterprise the scope of which is daring, risky, but necessary. As we step into our shared future we may, in effect, reverse the potentially ill fate in which we find ourselves. As we rewrite the story of our bodies and our selves, we can unlock our heroic makings – but we must do this reflexively, collaboratively and with ever-present humility.
Bibliography

Abraham, Adam. 2012. "Healing Method from Australia Addresses the Human Genome: Developer of Genome Healing Comes to Arizona to Teach First Class". In PR Newswire. New York: Photonic Energy Center, LLC.


Carpenter, Janet S, Dorothy Y Brockopp, and Michael A Andrykowski. 1999. "Self-
Transformation as a Factor in the Self-Esteem and Well-Being of Breast


58589.

CBS. 2011. "Was Kate Winslet Born With a "Hero Gene"." *YouTube* video, 2:46,
August 27. https://www.youtube.com/watch?v=T3gAH32yN2g.

*Center for Inflammation and Regeneration Modeling (CIRM)*. 2014. McGowan

Champagnat, Ronan, Guylain Delmas, and Michel Augeraud. 2010. "A Storytelling
Model for Educational Games: Hero's Interactive Journey." *International


Choi, B. C., and A. W. Pak. 2006. "Multidisciplinarity, Interdisciplinarity and
Transdisciplinarity in Health Research, Services, Education and Policy: 1.
Definitions, Objectives, and Evidence of Effectiveness." *Clinical and


Clark Estes, Adam. 2013. "Scientists Found the Wolverine Healing Gene".
*Gizmodo*. http://gizmodo.com/scientists-found-the-wolverine-healing-gene-
1460379380.


https://www.youtube.com/watch?v=HaMeGdrKnnEE


Langdon, M. 2013. “How to be a Hero by Matt Langdon at TEDxMarinette.”
YouTube video, 15:59, May 1.
https://www.youtube.com/watch?v=IE0jGWVMjJw.

Langdon, M. 2014. “Flint to be ‘Hero Town, USA’.”

http://www.heroconstruction.org/.


Lee, L. R. 2015. “Injury Incidence and the Use of the Movement Competency Screen (MCS) to Predict Injury Risk in Full-Time Dance Students at the New Zealand School Of Dance (NZSD): A Prospective Cohort Study.” PhD diss., Auckland University of Technology, Auckland, New Zealand.


http://www.pbs.org/wgbh/nova/genes/about.html.


Smyth, B. 2010. “Heroism and History in Merleau-Ponty’s Existential

Cambridge: Cambridge University Press.

Sointu, E. 2006. “Healing Bodies, Feeling Bodies: Embodiment and Alternative and


Staats, Sara, Julie M Hupp, and Anna M Hagley. 2008. “Honesty and Heroes: A
Positive Psychology View of Heroism and Academic Honesty.” The Journal
of Psychology 142 (4): 357-372.


Stephens, John, and Robyn McCallum. 1998. Retelling Stories, Framing Culture:
Traditional Story and Metanarratives in Children’s Literature. New York, NY:
Garland Pub.

into the Self.” Self and Identity 4 (2): 101-111.

(1/4): 107-126.

of Eudaimonia and Phronesis.” PhD diss., University of Kansas.


Williams, C. 2016. *A Mudmap for Living: A Practical Guidebook for Daily Living based on Joseph Campbell’s the Hero Journey*. Dr Clive Williams, Amazon Digital Services LLC.


