The Challenge of Communicating Complex Problems: Can Art Succeed Where Academia Fails?

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Abstract

Graphic novels and comic books are often thought about as pulp fiction aimed specifically at adolescent males: their characters are usually armed with superpowers and rescue beautiful women. Over the last 20 years, however, comics have 'grown up' and it is increasingly acknowledged that these works have a presence within literary culture. This paper considers the role of graphic novels and comic books within the broader context of popular culture – looking at the unique mechanism of communication they offer as they bring together words and graphic images. Further, I consider the insights of graphic novel authors who are using this cross section of literature and art to discuss and confront some of today's key challenges, including racism and climate change. Focusing on two specific works – Vertigo's *Y: The Last Man* and the short novels of Australian independent artist Pat Grant – I consider how this medium raises these issues and the dystopian futures that often are perceived to inevitably follow.

Keywords: Graphic novels, climate change, racism, popular culture

Introduction

As an activist academic I regularly take part in public debates, particularly around issues of climate change and racism. These are often informative but not necessarily 'enjoyable' – not that they are designed to be the latter. I am never sure why I take part in these as I am often hissed and booed, and on the odd occasion, receive abusive emails. Once I even received an anonymous text message telling me I was a fraud – I am not even sure what prompted that one.

One of the fundamental challenges in taking part in such events is to draw on the right tools to explain my arguments: this is not an easy task.

Recently, I was asked to discuss if 'population growth' is the major 'environmental challenge' confronting the world generally and, Australia more specifically. This followed a great deal of 'debate' about the 'right' population size for Australia that had been instigated by former Prime Minister, Kevin Rudd. The shape of the debate was insightful: in a parliamentary speech on global environmental issues delivered late last year, Australian Labor Party parliamentarian, Kelvin Thomson, said it was time to discuss the environmental "elephant in the room" (Thomson, 2009: 1). The 'elephant' Thomson wanted to talk about

was population growth, both in Australia and globally. Thomson read out a long list of global issues, from traffic congestion and waste, to global warming and terrorism, and explained how the "population explosion" was at the base of each of these problems (Thomson, 2009: 1).

The debate was given extra impetus by the Australian Treasury's 2010 Intergenerational Report that also touched on population size (Commonwealth of Australia, 2010). Buying into the debate were entrepreneur Dick Smith and former New South Wales Premier, Bob Carr, both of whom warned that population growth at current levels would lead to ecological disaster (ABC Online, 2010).

While carrying capacity is no doubt a factor confronting many parts of the world, an analysis of this debate highlights the public convergence of two traditionally separate problems that challenge the social and physical sciences: climate change and racism. Importantly, I categorise the population debate as converging on 'racism' not because of any overt discourse used, but because of the connotation that it is 'outsiders' who threaten Australia's fragile environment rather than current excessive consumption (see Green and Minchin, 2010, for a discussion of excess consumption).

While at first glance these problems seem neatly separated within the categories of 'physical' and 'social' sciences, a more subtle analysis indicates that both disciplines have always played an important role in both debates. Racism, for example, is a consistent issue confronting many social scientists who must face a media that draws straightforward links between biological and social characteristics (McCausland, 2003). Racism's history, however, is deeply entrenched in the biological sciences that expanded with developments in scientific process (Fredrickson, 2003). It is from this discipline that cranial measures emerged to confirm an intellectual hierarchy placing European males at the top, and indigenous people at the bottom, and a complex interplay of colonial power relationships in between (Fredrickson, 2003).

By the mid-twentieth century the biological sciences had dismissed the concept of 'innate superiority' with biological characteristics being separated from social characteristics. By 1962, for example, Dr Frank Livingstone presented an analysis of blood from different racial groups, and found no differences in any genetic traits between them (1962: 279). In fact, Livingstone found that biological traits are most likely based on ecological conditions: that is, people's biological characteristics (unsurprisingly) adapted to their environments. Despite this, the myth that links biological and social characteristics persists – something the social sciences have failed to properly overcome.

Likewise, while countless reports have confirmed the "strong evidence that the warming of the Earth over the last half-century has been caused largely by human activity", a large degree of denial remains (Royal Society, 2010: 1). We see 'denialists' turn carefully weighted language which distinguishes "where the science is well established, where there is wide consensus but continuing debate, and where there remains substantial uncertainty" (Royal Society, 2010: 1) into arguments that the 'science is out' – a claim that is misleading, naive and dishonest (see Moore, 2010, for just such a selective analysis).

It is not as if the climate scientists do not produce enough evidence regarding the human impacts on global climate. Rather, it seems to have been a failing in understanding and responding to the sociology of climate change denial (Monbiot, 2009). Much like the

inability to appropriately deal with the 'myth of race', many of us have failed to confront the issue of climate change scepticism and denial continues to increase (BBC Online, 2010).

This paper looks at the failure of 'scientists' to confront these two important challenges – racism and climate change. I argue that it is not through a lack of research, but rather a tendency to limit the 'tools' we are using. Much like an Australian who tries to communicate to a non-English speaker by speaking slower and louder, I argue that we are often using the wrong language – and it is here we should draw on the communication abilities of artists (such as Flarey, whose work is depicted in Image A). I will present these arguments with a specific focus on comic books and graphic novels while contextualising my arguments within the broader research area of popular culture.

Image A: *You Make the Earth Sad* (Flarey, 2009).
[Courtesy of Flarey: Image reproduced with permission of the artist].

Studying 'popular culture'

According to John Durham Peters (2008), media studies as a field of research generally takes three main forms. The first of these is "textual and interpretive" (Peters, 2008: 3): that is, it provides a reading and analysis of what is taking place. One example here is the ongoing fascination with HBO's TV series *The Wire*, which ran for five seasons and focuses on the inner city gangs in Baltimore, Maryland, USA. *The Wire* has been the subject of various conferences as researchers attempt to analyse what insights the series provides about understandings of "the interactions between the drugs economy, race, the criminal justice system, the polity, globalisation processes, the changing class structure, the education system and the (new and old) media" (see Kristensen, 2009: no page).

Such forms of popular culture are seen as both 'entertainment' and 'sociological'. This form of popular culture invokes a renewed sense of the "sociological imagination" (Peters, 2008). Sociologist William Julius Wilson has stated:

> *The Wire*'s exploration of sociological themes is truly exceptional. Indeed I do not hesitate to say that it has done more to enhance our understandings of the challenges of urban life and urban inequality than any other media event or scholarly publication including studies by social scientists (Quoted in Penfold-Mounce, Beer and Burrows, 2011: 152).

Such readings of the 'text' of popular culture provide the opportunity to both interpret and engage: that is, rather than simply studying the societal mirror that is popular culture, we can also understand it as a tool for creating access for ordinary voices (Peters, 2008). In this way, we have seen the emergence of a stream of academic works that use popular culture such as the television series *Buffy: The Vampire Slayer* (see Wilcox, 2005), and Alan Moore's graphic novel *The Watchmen* (see White, 2009), to explore and communicate philosophy, gender politics, domestic violence and issues of power to both fans and the broader public alike.

Popular culture can also act as a form of collective memory. It allows us to understand how we like to remember events, time periods and specific historical figures. Furthermore, we can see popular culture and media reflecting the priorities, strategies and tactics of a civilization (Peters, 2008).

Popular culture is not benign nor does it emerge in a vacuum. In this way, popular culture often sets political agendas that sustain inequable relationships in society such as the recent sustained portrayal of Muslims as terrorists in many Hollywood-produced blockbusters (Shaheen, 2008) or the fetishism of the 'war on terror' in Batman movies (Toh, 2009). Likewise, popular culture can be used to confront these very relationships, as Swedish author Stieg Larsson has done in the Millennium Trilogy series of novels.

According to Perna (2008), comics are no different – both challenging and enforcing established narratives. Within this context, this research paper aims to explore how two artists – one who focuses on new media and the other a more 'traditional' popular culture – have attempted to confront the above challenges. Both artists use the form of the graphic novel to explore these issues – an often-maligned form of literature and art.[1]

Comic books and graphic novels: from geeks to serious literature?[2]

Graphic novels can simply be thought of as "book length comic books that are meant to be read as one story" (Weiner, 2004: xi). Comics, then, represent a mechanism of telling a story that uses "juxtaposed pictorial and other images in deliberate sequence" (McCloud, 1993: 9). In a historical analysis of comics and graphic novels, Scott McCloud actually uses that very mechanism to argue that though contemporary comics emerged in the nineteenth century they have been with us for millennia: from Egyptian paintings to France's Bayeux Tapestry (1993: 12) – a claim that Kuechenmeister questions on the grounds of its "retroactive application of a modern perspective" (2009: no page). Regardless, in comic books the single rule is that art

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[1] I do not want to distinguish between 'high' and 'low' end art: I am using art in its most generic sense. See Locke (2009) for a discussion of whether the comic fits under high or low end art.

[2] While in this section I provide a brief history of comic books and graphic novels with a focus on developments in the United States, Australian and European comic books have followed similar trends in reflecting social developments. The major difference has been that the industry in both Australia and Europe has been much smaller and therefore had less profile than in the USA.

must follow logic in telling the story (McCloud, 1993). In this way, neither Image A nor Image B are 'comics', but Image C is as it is part of a sequenced story.

Image B: *For Sale* (Flarey, 2009).
[Courtesy of Flarey: Image reproduced with permission of the artist].

The comic book format represents a complex montage of words and images – with the reader expected and required to simultaneously exercise both their visual and verbal senses (Eisner, 1990). As you read the comic book, you draw on your ability to understand and interpret both art and literature. Consequently, the comic book is "an act of both aesthetic perception and intellectual pursuit" (Eisner, 1990: 8).
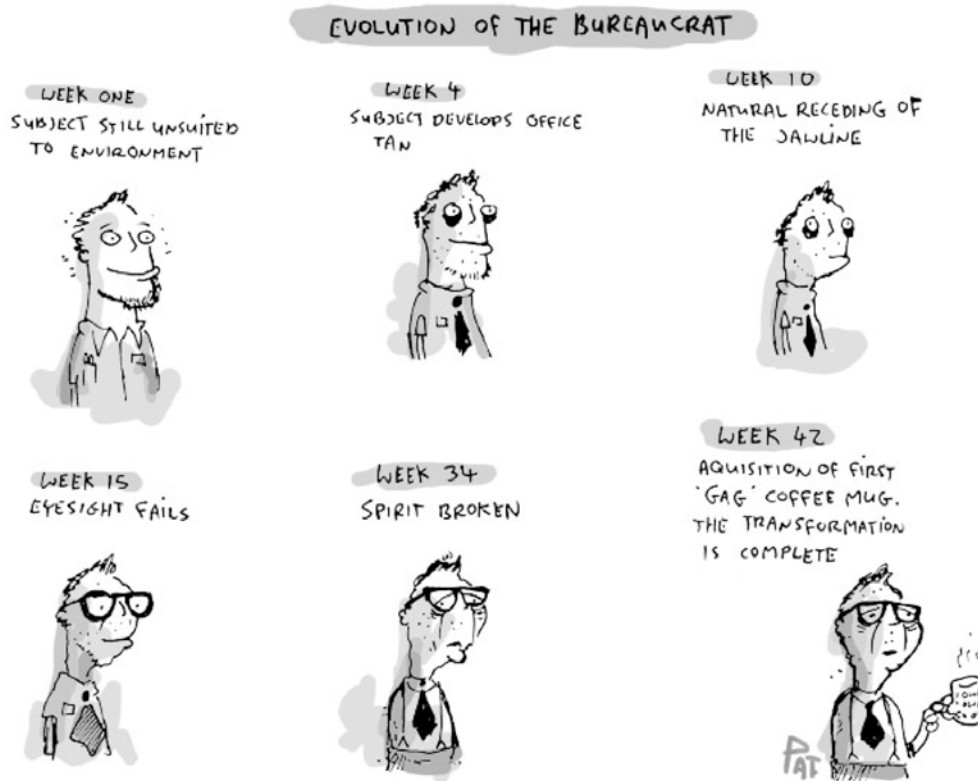

Image C: *Evolution of a Bureaucrat* (Grant, no date).
[Courtesy of Pat Grant: Image reproduced with permission of the artist].

Will Eisner, the first critically acclaimed graphic novelist, argues that the modern forms of comics, which he identifies from the 1950s onwards, have matured considerably (2004: ix). Specifically, Eisner's position is that comic books have moved from being considered pulp fiction for adolescent and teenage boys to something more sophisticated that have received literary awards and critical recognition: examples include Moore's *The Watchmen* (2008) being recognised by *Time Magazine* as one of the twentieth century's top 100 novels, Joe Sacco being awarded an 'American Book Award' for *Palestine* (2001), and *Maus* (1993) author Art Spiegelman receiving a Pulitzer Prize. This is a "growing up" of comics (Sabin, 1993: 87).

Reflecting the abovementioned comments regarding popular culture, comic books and graphic novels have acted as a mirror to society (Collins and Yalcinkaya, 2008). During World War II, for example, they were essentially propaganda and were distributed to US army soldiers to confirm the support they were receiving 'back home' (Weiner, 2004: 3). The 'super heroes' and everyday characters portrayed a straightforward world simply separated between them (the bad guys) and us.

In the 1950s, the tone and direction of comics changed in a way that reflected and captured the changing nature of society. For example Harvey Kurtzman's *Two-Fisted Tales* (2007), published from 1950 to 1955, tells of the horrors of the Korean War rather than glorifying conflict, as did the 1940s comic books. Social norms were also challenged on its pages: parents divorced, politicians were corrupt and children were not that innocent. They also began to incorporate the threat of nuclear war – clearly stating that in the next war there would be no winner. For Weiner, this was a new breed of author and artist that was acknowledging to younger people that "the façade America was living in the 1950s was a sham" (2004: 6).

The 1960s further reflected troubled times: from the Vietnam War, to drugs and the sexual revolution. The 1970s and 1980s saw the emergence of comics that told of the consequences of nuclear war, such as Raymond Briggs' *When the Wind Blows* (1982). In the 1980s and 1990s, the emergence of the *Swamp Thing* (Moore, 1998) highlighted the consequences of environmental destruction. Since then, globalisation, terrorism, corruption and environmental degradation have all been themes that have been reflected in the comic book industry.

By the twenty-first century, graphic novels began receiving critical acclaim as well as establishing a fan base. Novels branched into different areas – from journalism pioneered by Joe Sacco in *Palestine* (2001), to Harvey Pekar's reflections of life as an 'average man' in *American Splendour* (2003).

This journey has not been without difficulty for comic book authors. A study by Frederic Wertham titled *Seduction of the Innocent* (1954) identified comic books as a key cause of youthful rebellion. Wertham argued that comic books incited rather than reflected rebellion and a lack of respect for authority. Further, comic books were linked to the threat of communism, and a series of public burnings followed (Weiner, 2004).

The result was a review of comic book content and pressure on artists to sanitise their work. The comic book industry established a voluntary code of conduct and this process meant that comic books lost their social relevance. This led to the rise of an underground scene that established many of the trends described above – but which was absorbed back into mainstream comics when the code was all but abandoned in the late 1980s (Weiner, 2004).

The failure to communicate complex issues

We do not have to look far to see how physical and social scientists have failed to communicate the complex issues of climate change and racism. Most climate change communication efforts, for example, have focused on increasing the amount of news coverage about climate science (Oreskes and Conway, 2010). This is based on an expectation that the more stories about the urgency and technical complexity of the problem, the faster the public will respond.

In this way, communication is simply seen as a process of transmission (Gamson and Modigliani, 1989). That is, the policy outcomes that are expected to follow 'the facts' are seen to speak for themselves. As Gamson and Modigliani argue, however, the interpretation of 'news' and 'facts' does not occur in a vacuum. Consequently, those who support the position that climate change is anthropocentrically driven are open to the science and respond to calls for action, while many others choose to either ignore the reports or refuse to move from their interpretation on pre-established positions.

In both Australia and the USA, this interpretation has been based on pre-existing political positions that have led to an ongoing polarisation of opinion (Nisbet, 2009). Many unaligned voters increasingly are becoming sceptical of the claims of climate scientists and now believe the 'science is still out' (Oreskes and Conway, 2010).

This reliance on the process of information transmission has simply failed. The failure of this transmission model needs to be understood within the context of climate change science itself: it is a complex challenge that is not concentrated in any single location. This can be contrasted with other environmental issues such as the oil spill in New Mexico, USA in 2010.

The issue of racism and racist attitudes is also not so clear-cut. If we take racism to mean a belief that a population has innate characteristics based on their ethnic or biological origin, then racism remains an issue confronting our contemporary society. There are, for example, persistent associations of deviancy with immigrants of non-white backgrounds, throughout Europe, including Sweden (Hubinette and Tigervall, 2009), and also in Australia (Bloch and Dreher, 2009). Such entrenched associations rely heavily on biological explanations, while ignoring the complicated mix of social, economic and historical factors which equally characterise these issues. This complexity is ignored by much of the mainstream media as it continues to promote a deep distrust of outsiders (Hubinette and Tigervall, 2009).

Again, we as social scientists have failed to communicate this successfully – not through lack of trying but because of our limited choice of tools. The transmission model has failed to communicate the complexity of the issue and we seem unable to engage in alternative strategies.

Within this context, I would like to consider the insights provided by one form of popular culture in attempting to deal with complex issues: graphic novels (or comic books). Drawing on one of the most popular series over the last few years, Vertigo's *Y: The Last Man* (2003), written by Brian K. Vaughan and illustrated by Pia Guerra, as well as the work of an independent Australian-based artist, Pat Grant, I consider how this medium communicates these challenges and reflect on lessons we can learn.

Importantly, here I also want to draw on the work of Marshall McLuhan and Quentin Fiore (1964). McLuhan and Fiore actually referred to comic books when they challenged the concept that the content of a message is more important than its form – arguing that the means of communication itself creates an impact, not just what is said: 'the medium is the message'. McLuhan and Fiore claimed that a story has different meanings depending upon whether it is related verbally, written, acted out, heard via a radio, seen on film or presented in a comic book. Each of these mechanisms should be understood as having its own language. For James Zeigler, comic books are a way to present and confront "cultural norms at work on the imaginations and collective practices of young people just emerging into adulthood" (2008: no page). He argues that the comic is a medium which can present a narrative of critical force.

In *The Mechanical Bride* (1951: 105), McLuhan criticised Superman's crime fighting as "the strong-arm totalitarian methods of the immature and barbaric mind". In *Understanding Media: The Extensions of Man* (1964), he had a more positive response to comic books as a medium, analysing the intangible ways comics shape and infect our culture. In fact, Leshinski (2005) notes that McLuhan saw comics as capturing gestures and postures that reflected our culture, much like photographic media.

Given this, why would the comic book art form be particularly relevant for confronting the challenges of climate change and racism? According to McCloud, it is because of what the comic does not show: what happens in between the cells or what McCloud describes as "the gutter" (1993: 66). Here the reader (or viewer) is expected or compelled to participate in "completing and interpreting the few hints provided by the bounding lines" (Kleefeld, 2009: 123). This is what McLuhan described as 'cool media' – or creations that compel the reader to fill in the blanks (Leshinski, 2005). This can be contrasted with McLuhan's 'hot media' where the consumer is passive (Leshinski, 2005).

While text alone may still present the message, Karl Suhr (2009) argues that the interplay of text and image adds a unique dimension only available to the comic book: it allows the reader to move back and forth, interpret, reflect and project. In this way it is very different from film, and unlike the written word alone.

Communicating complex issues: *Y: The Last Man*

The story of *Y*, published between 2003 and 2009, begins with a plague killing every mammal with a Y chromosome. Yorick Brown, who resides in New York and seems to be doing little with his life or have few skills apart from being an amateur escape artist, and his male Capuchin monkey, Ampersand, are the only exceptions (DC Comics, no date).

While the plot seems to be 'every' heterosexual man's fantasy, there is little fantasising as society is plunged into chaos. Infrastructures and economies collapse, and just how male-dominated our civilization remains is quickly made evident. From aviation to rail and medicine; agriculture to the penal system and the political sphere, almost every industry begins to collapse.

This is no feminist utopia either: power structures and relationships remain, and conflicts across national, ethnic and political lines continue. Survivors not only try to cope with the loss of the men, but also experience survivor guilt.

There are a number of story arcs happening in parallel – both across the entire 60-volume series, as well as shorter sub-plots. Through a series of events Yorick meets up with a government agent, known only as 355, and a genetic scientist, Dr. Allison Mann.

Yorick, as the last remaining male, is an incredibly valuable commodity. Fuel and food also become increasingly rare. Air travel is basically impossible; railways and roads are often blocked or broken; and many sections of the country have fallen into chaos, patrolled by armed gangs. Some of these gangs are religious; others are anti-government militants; and, as always, others are controlled by figures that attempt to gain political mileage out of the situation, taking advantage of the fear and insecurity that has come to dominate people's lives. This latter group includes a militant feminist sect, the Daughters of the Amazon, who target sperm banks and genetic development facilities to ensure that any moves to bring men back fail.

Old ethnic tensions are also explored as Israel learns of the existence of Yorick and – in fear of being overrun by Middle Eastern states – sends a squad to bring him back. This is an obvious reflection on current Israeli debates regarding the Jewish/Palestinian population mix.

Throughout the series we are witness to the new world that is forming from the ruin of the plague. Most survivors are fatalistic about the impending extinction of the human race and become actively destructive. In contrast, others attempt to build secure self-sustaining communities. The story was written over a number of years (from 2003 to 2008) and the narrative takes place over an extended time period: the world is slowly transformed as some survivors take control of their lives, building agriculture, industry and infrastructure. The result is that some sort of normality begins to form.

Dr. Mann believes that both the source of and solution to the plague may well rest with the work of her parents – both of whom are geneticists. There are further twists but finally they think they have found the cause of the plague, as well as opportunities to save the human race.

The final section of the story sees us jump 60 years into the future. We see what has become of the human race as well as the main characters.

As the plot summary indicates, there are many interweaving themes that take place throughout the series. The most obvious is the extensive analysis of gender issues and politics. The story highlights the ongoing dominance of masculine culture and power, while at the same time dispelling the concept that there is a female utopia around the corner.

The second and third themes are interrelated, and are the focus of this paper: the first is scientific progress taking the place of so-called natural processes, and the second is the changing nature of our relationship with 'the environment'. This also highlights the complexity of environmental challenges. Importantly, the cause of the plague is never made clear or fully exposed. There are clues scattered throughout the series and the reader is left to decide the most likely reasons for the catastrophe. This has broader implications, as it may have not been one single reason but a combination of these.

A fourth important theme is the role of memory: how do we remember a world that has changed so profoundly but in which we must act like everything new is normal? How do we remember all the loved ones lost, or the way social interactions used to be conducted, or any number of everyday experiences between males and females? In a time of such profound change, how do we carry on and deal with the memory of the way the world was?

Why *Y*?

There is a long history of interaction between various forms of popular culture, from movies to advertisements, reflecting on the relationship between humans and nature. In Disney's 1942 animation of *Bambi*, for example, the hunter tracks down and kills Bambi's mother. More recently, in the 2004 feature film *The Day After Tomorrow* the earth suffers from the ravages of global warming, while world leaders squabble over minor details. In such portrayals, nature features predominantly as being in conflict with, and suffering from, the brutality of humanity (Whitley, 2008).

The nature presented by such films, however, is sentimental (Whitley, 2008). The animals are cute and there is often a portrayal of a golden time: before humans ran amok, humanity attempted to live in harmony with nature. We are encouraged to 'feel' for this nature that is vulnerable to human indifference and greed, as well as recognise the many 'progress traps' which have come to mark our contemporary society (Wright, 2004).

This sense of the vulnerable that such movies impart can be contrasted with the rationale we currently employ in dealing with environmental problems. Environmental decision-making is simply a cost-benefit equation: that is, how many jobs are at stake or how much gross national product will we lose if we undertake environmental measures.

Consequently, it has been argued that what we need is not just new technologies and better environmental decision-making, but a change in the way we 'feel' about the environment (Keith, 2009). I am describing a cultural change which would require us to feel for nature in total, not just for the cute and cuddly animals we have come to so adore (such as dolphins and koalas, to name just two). This changing attitude must encompass our relationship with nature: its vulnerability; brutality; role in humanity's survival; and how we can and do change the environment around us.

At a time when the international community has failed to respond to any number of global environmental challenges, with the ineffectual Copenhagen talks the most obvious, the question is how will this change occur? The answer is complex, but I am in agreement with Whitley (2008) who argues that popular art and culture must play a significant part in this transition. It is also an opportunity to speak and listen to ordinary voices, not just the scientific experts (Peters, 2008).

The obvious risk is that the complex relationship between human actions and consequences is simplified in the telling of popular art, but as we have seen in the failed attempts by scientists to explain the urgency of our challenges, we need to counter-balance complexity with accessibility. This process is key in transmitting the need for a change in our attitudes and ideologies. Despite this, popular art must be vigilant against simplifications or it will be dismissed as irrelevant.

Y provides us with three important insights into the way that popular art and culture can deal with contemporary environmental challenges while avoiding the abovementioned pitfall of simplicity. These may well provide us with further guidance on how to deal with one of the key challenges of our time, so as to overcome the sense of helplessness that both political leaders and environmentalists often express.

The first is that it takes a complex approach to the causes of the plague: there is no simple one-to-one causal relationship between the actions of humanity and the outbreak of the plague. In this way, while we are convinced that it was the actions of humans that have caused the likelihood of their own extinction, it is not as simple as a single event or action. Rather, there are various potential causes as well as a probable outcome. As a result, we are left wondering not only how this thing happened, but why now? What was the trigger or the tipping point?

This is an important parallel to global warming: there is no single cause (despite the issue of 'carbon' being most often cited) and we have no idea when the tipping point will be. Estimates exist, but we remain hopeful that we are yet to cross this point. In *Y*, controversial experiments in cloning are seen to be the main trigger (though not necessarily the cause) of the plague, but no simple causal flow is drawn.

The challenge for global warming activists is how to deal with the complexity of such a phenomenon without oversimplifying the issue. Such attempts need to be counter-balanced with discussions that explain the complexity behind atmospheric events, or those who gain from confusing this issue will continue to disrupt action.[3]

The second point that the graphic novel represents is the complex interactions we have with science. The central heroes and villains in the books include scientists who stand between the survival and extinction of humanity. Here science not only offers us hope but is what damned us in the first place – for it was science that most likely caused the plague.

This reflects the abovementioned 'progress traps' that Ronald Wright (2004) describes. For Wright, a progress trap is the condition in which human societies pursuing progress through ingenuity add to their success but simultaneously (and inadvertently) introduce problems they do not have the resources or political will to solve. This is either for fear of short-term losses in status, or quality of life. More importantly, however, it is beyond the frame of reference to do things differently, for it is the very steps in the process that have led to the success in the first place.

This is a key insight into Vaughan's story: how can the people who created the problem solve it if it means that they have to give up their status, as well as find new tools to do so? It seems that Vaughan is uncertain about the answer because his 60-year vision into our future leaves us wondering if a solution is actually possible, or whether we have been merely presented with another band-aid fix that is only delaying the ultimate challenge.

From here Vaughan also explores the themes of risk and unintended consequences. These are the themes well established by Ulrich Beck in *Risk Society* (1992) but investigated in the

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[3] For those interested in the various tactics used by 'sceptics', see Arvanitakis (2010) for an exploration of climate denial strategies.

series in an innovative way. Within the story, the commercial competition of cloning becomes a focus: the very technology that was the possible trigger for the crisis. Again, we are left to reflect on the unintended consequences of the technologies we employ.

The third theme that emerges is the relationship between humanity and nature. This emerges in several ways throughout the series, and I will discuss two here. The first is the interrelationships between Ampersand and Yorick. As the story progresses we see that human and animal rely on each other for survival. They cannot be separated – and in fact we learn late in the series that it is the animal in the human that prevents Yorick from suffering the effects of the plague.

The second relationship that emerges is seen through the process of the 'life cycle'. Over the years that we follow the journey of Yorick and his companions, we are occasionally informed by Dr. Mann that a certain species would have now died out because their breeding cycle would have been breached. In the contemporary context it is easy for some mammal species to disappear and for us to pay scant notice, but for a civilization teetering on the brink of extinction, each species is a reminder that the end is getting closer.

Both of these interrelationships remind us that we are not as far removed from nature as we would like to believe. Our survival as a species still relies on us being managers of the land and every time we make a bad decision, we should remember that there are consequences. Such consequences may be some years away, but we cannot avoid the inevitable relationship we have with nature.

If we combine these three issues, we see a closely aligned relationship between humanity, technology (or our ingenuity) and nature. It is the interplay between these that has created the crisis in the first place. Throughout the story we see these out of balance – and the only way to find a solution is to seek a way to rebalance the complex relationship.

Consequently, the solutions to the plague and to our contemporary environmental challenges are to be found in our relationships with nature and technology. These are not 'out there' but here around us, inside us: we are part of them and they are part of us, and it is the tendency to separate them that has created the crisis, both in *Y* and in our contemporary society.

This takes us to the final theme relevant here, and that is 'agency'. When Yorick realises the extent of the crisis, he is overcome with guilt and helplessness. It is here that Agent 355 must convince him that there is hope. This is not a passive hope, but active; one that emerges from his actions and the actions of those around him. Is the end of humanity too much for the group to deal with? Can any single person, be it the last man on earth or Dr. Mann, make a difference?

At the core of our environmental challenges is this same question: can a single person or nation make a difference? This has been one of the key justifications of inaction and may also explain why global warming has fallen off the priority list for so many: it is a feeling of helplessness that gives rise to inaction.

Pat Grant comics[4]

Pat Grant is a young artist living in Melbourne, Australia. While his artwork is often published, most of it appears online. His work is more short (self-contained) stories than sustained novels or series, using his own unique style to introduce a number of issues confronting contemporary society. His work is not in the smooth and realist style of high-end comics like *Y: The Last Man* (see Image D). Rather than presenting an in-depth analysis of Grant's large body of work, I would like to touch on two projects which cover the issue of racism, and a third that focuses on environmentalism and progress.
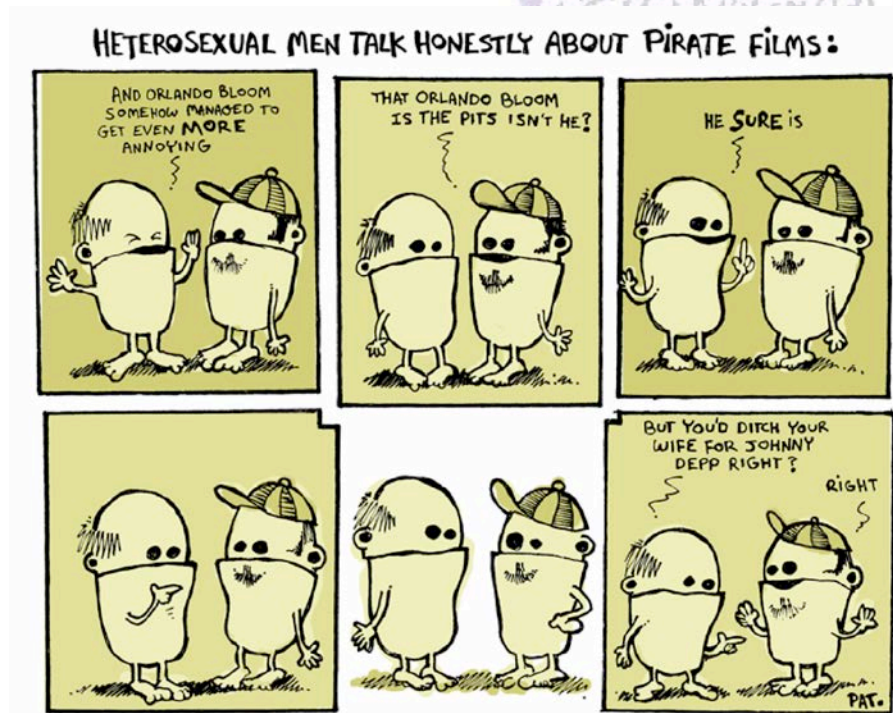

Image D: *Heterosexual Men Talk Honestly about Pirate Films* (Grant, no date).
[Courtesy of Pat Grant: Image reproduced with permission of the artist].

The first of Grant's works I will discuss is *Waiting for Something to Happen: The Cronulla Riot Comic* (2007). This is an autobiographical piece in which Grant and a friend pass through Cronulla, a beachside suburb in Sydney. They are driving north after having spent time in the southern city of Melbourne, and decide to stop for a swim. As it works out, this is the very day that over 5,000 people gathered at Cronulla to 'reclaim the beach' from 'outsiders' who had been identified as young men 'of Middle Eastern appearance' (see Noble, 2009). What followed were random violent attacks against anyone who was identified as 'not being Australian': that is, those not 'white enough'.

Grant – a young, fair-skinned, dreadlocked man – and his companion at first blend in naively, thinking it might be a celebration of sorts. The experience quickly turns sinister and they realise that something is developing that they do not quite understand (see Image E).

While much has been written about the Cronulla riots, as they are now known, Grant's approach to this incident is unique as it combines humour, analysis, autobiography and

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[4] Pat Grant's artwork is available on his website *Pat Grant Art* (no date).

critique. At the same time, he positions himself as an outsider wondering how this could happen. He also highlights how many of the people present were not expecting violence – but simply 'something to happen'. As can also be seen in Image E, Grant outlines the language that has made prejudicial statements accepted, such as 'I am not a racist but…'. Many of the protagonists making such statements are also wrapped in or holding an Australian flag – highlighting the exclusive nature of the nation. This is a specific nationalism – one based on a sense of whiteness.
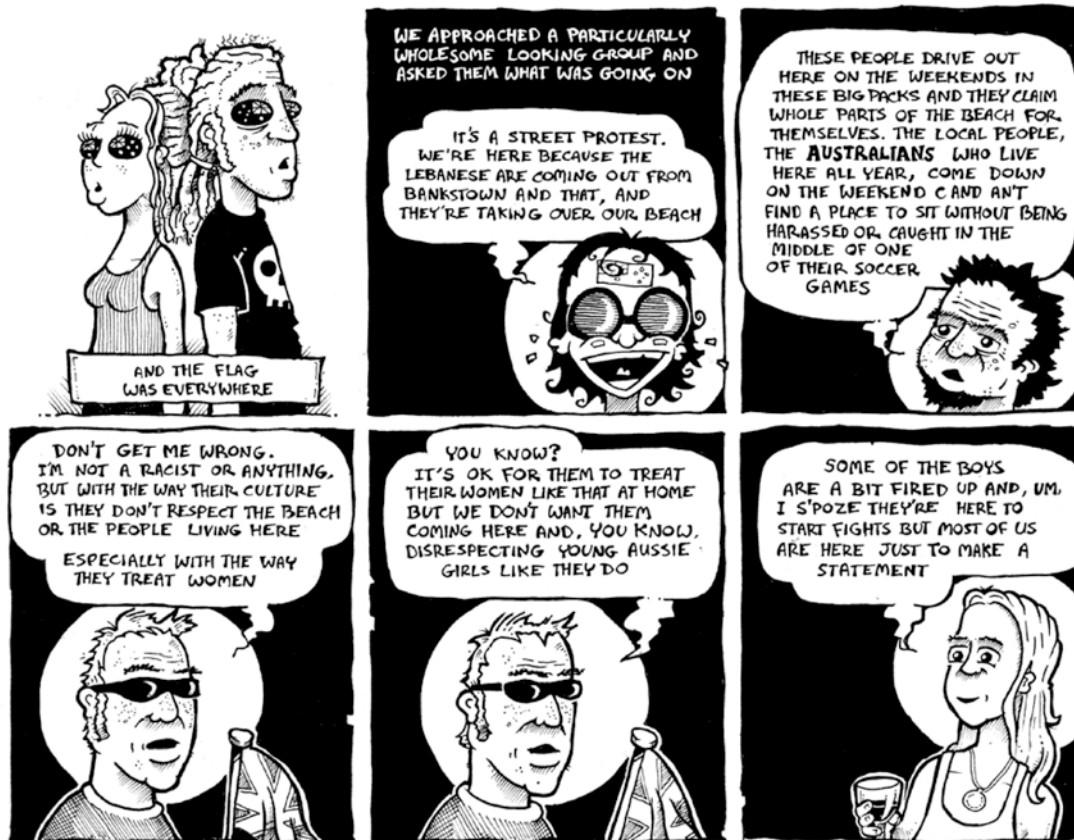

Image E: Excerpt from *Waiting for Something to Happen: The Cronulla Riot Comic* (Grant, 2007).
[Courtesy of Pat Grant: Image reproduced with permission of the artist].
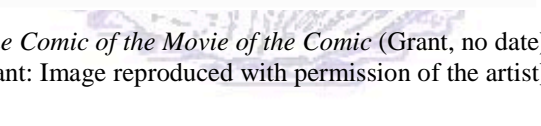
The second artwork is a critique of the Frank Miller film *300* – about the 300 Spartans who sacrificed their lives as part of the ancient Persian wars (Image F). The film created controversy because it depicted Persians as barbaric, deceitful, murderous and bloodthirsty (Powers, 2007). In contrast, the Greeks are portrayed as paragons of Western values, representing freedom, honesty, masculinity and bravery.

Grant also takes issue with the overtly discriminatory nature of the film in his work *The 300: The Comic of the Movie of the Comic.* In this piece, Grant looks at the Spartans as protectors of the 'Australia way of life' and employment – both aspects which, according to the rioters Grant depicts in *Waiting for Something to Happen*, are under threat by new migrants – particularly those from the Middle East. Again Grant combines humour and critical analysis, raising issues of migration, racism, masculinity and stereotypes that emerge in filmmaking.

The third artwork is titled *You Can't Stop Progress* (2007; see Image G). In this work, Grant critiques dominant understandings and practices of 'progress' – which he indicates involve real estate speculation, displacement, isolation and environmental damage. One of the issues

raised involves the need to displace those who do not appreciate the economic value of land and are unwilling to move because of the cultural value they place on their 'home'. He combines the issue of 'racism and environmentalism – touching on Australia's colonial past and the displacement of indigenous persons.

Image F: Excerpt from *The 300: The Comic of the Movie of the Comic* (Grant, no date). [Courtesy of Pat Grant: Image reproduced with permission of the artist].

Image G: Excerpt from *You Can't Stop Progress* (Grant, 2007).
[Courtesy of Pat Grant: Image reproduced with permission of the artist].

Conclusion, reflections and a way forward for activism, academics and artists

As we enter the second decade of the twenty-first century, the world's nations seem to be bent on a new phase of isolationism. The recent announcement by German Chancellor Angela Merkel that multiculturalism has been an absolute failure (Weaver, 2010) comes at a time that the world's most powerful nations seem to only reach some minimal level of agreement when dealing with the ongoing global financial crisis or the challenge of climate change.

Both challenges discussed in this paper highlight two substantial scientific and political failures: the ongoing myth of racism and the inability to respond to the challenges of climate change. While, in part, this is a moral failure, we have also failed in our ability to communicate and motivate a public that has become increasingly confused about these issues.

In this paper I argue that popular culture, and specifically graphic novels, offer an additional mechanism for both communication and action. They may seem unsophisticated and not the type of tools that serious scientists adopt: but the ones that we have used so far have failed us and it may well be time to try something different.

Why comics and graphic novels? To answer this, I echo McCloud's (1993: 69) arguments that such media are not passive tools of consumption but require active interpretation by the reader. To break through the communication barriers that we currently confront, messages

must be tailored to both the medium being used and the audiences we are dealing with. Using comic books it is possible to construct a new series of metaphors that may well encourage new ways of thinking about the personal relevance of climate change (Nisbet, 2009).

For Nisbet (2009), policy inaction on complex debates such as climate change should be viewed through a cultural lens. Following Nisbet's logic, we need to confront these challenges with cultural mechanisms – and comic books and graphic novels offer us just such an opportunity.

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