

References for *Music for a Warming World*

PART FOUR - HOPE

In the show we makes certain claims about the data and conclusions of climate science, or quote from particular sources. Below you can find references for these claims and explanation, as needed. We endeavour to be as accurate as possible with our sources.

The original text from the show is in italics.

We also provide some commentary on the songs when there are no references required. This will clarify the background of the song and the ideas it embodies.

Segue to Part Four

It is technically and financial possible to quickly transition to a zero carbon economy

“The Zero Carbon Australia 2020 Stationary Energy Plan outlines a technically feasible and economically attractive way for Australia to transition to 100% renewable energy within ten years. Social and political leadership is now required in order for the transition to begin. The ZCA2020 Plan shows that with a combination of energy efficiency, fuel-switching from gas and oil to electrified energy services, and a combination of commercially available renewable energy generation technologies, Australia’s energy needs can be met with 100% renewables”

See [Beyond Zero Emission Stationary Energy Report](#): Produced by [Beyond Zero Emissions](#) and the [Melbourne Energy Institute](#), The University of Melbourne.

15 - Imagine

About the only thing distinguishes us, in a categorical way, from any other species is our cognitive ability to imagine things that don't exist. Our shared imagination is the essence of our creativity as a community and it allows us, collectively, to create futures that would not otherwise exist.

One source for this claim is from Australian Psychologist, Thomas Suddendorf, from his 2013 book, The Gap; The Science of What Separates Us From Other Animals

As Suddendorf puts it, this gap is “our open-ended ability to imagine and reflect on scenarios, and our insatiable drive to link our minds together”

http://www.slate.com/articles/health_and_science/science/2014/03/the_science_of_what_separates_us_from_other_animals_human_imagination_and.html

An implication of this unique ability is that our future is never fixed, because the future is, the physical limitations of the universe notwithstanding, reliant on what vision we have for our future and the collective action we take.

Let's consider three things that shape our future.

The first are the biophysical processes such as the carbon cycle and the impact of temperature on climate. While all science has degrees of uncertainty attached, we nevertheless have an increasingly robust and reliable understanding of the future climate, sea level rise, global temperature levels and so on. This much is clear; if we keep increasing atmospheric concentrations of green house gases, our climate will continue to change, and those changes become increasingly dangerous and irreversible (for at least 1000 years).

The second is our ability to develop technical solutions to current problems. Prior to solution arising, predictions of the future were often dire. There are many examples here of huge problems facing the human community and unexpected developments that changed the future. One well know example is the 'green revolution' from the 1930s to the 1960s which has been credited with saving over a billion people from starvation.

Another interesting example of our ability to predict the future is the development of mobile phones:

“In 1980, AT&T ... commissioned a global market survey of those clunky new mobile phones that appeared then. "How many can we sell by the year 2000?" they asked. The answer, "900,000." And sure enough, when the year 2000 arrived, they did sell 900,000 -- in the first three days. And for the balance of the year, they sold 120 times more.” Al Gore, TED talk 2016.

Mobile phones will not save us, obviously, but the point was the when we look at the future, current predictions and visions are almost always wrong, because it is hard to predict imponderables such as human creativity or the speed of technical development. So we cannot see the solutions because they do not yet exist (this doesn't means solutions will always be found, but we have done pretty well so far as a species).

But the third category is even harder to predict: human values and action. No one anticipated the Berlin Wall to fall when it did. Few economists were able to predict the Global Financial Crisis of 2008. Human behaviour may be bound by the physical laws of nature, but it is not solely determined by those laws. Social behaviour is also determined by what we value, our collective stories and myths, our philosophies and what we desire.

For example, we currently have, as a community of human beings, the most peaceful living conditions ever experienced by humans (While this might surprise, on average, a person has less chance of being killed by a fellow human than ANY other time in our species history. See Stephen Pinker, The Better Angels of our Nature). The current level of personal safety experienced by most people, (though clearly not all), would be completely unrecognisable to a visitor from almost anywhere in our species past. This massive reduction in violence is a cultural change that could not have been predicted. To be clear, the violence we do face is serious, not to be minimised on the basis of past comparisons and must be continually addressed.

But the point here is simple: our human future is not set in stone; it is a complex and somewhat unpredictable product of our natural environment, our technologies and our social values and imagination. Therefore it can be different from our current predictions.

That is why this song is included in the show; to provide hope that there is a better future waiting for us, not necessarily 'better' in the same way, but one on which we can still 'thrive as human beings'

16 - Simple Things

This song celebrates living simply.

Money does not make us happy: true or false? The answer to this question is actually not that complicated, but it is more complicated than the binary question suggests.

The answer actually is, 'Yes, it does, though only to a certain extent.'

To be involuntarily poor sucks! To have insufficient income to meet one's basic needs, which includes the capacity to participate in one's community, is stressful and disempowering for most people. It is now clear that that happiness increases as income rises. So money does indeed increase one's well being in such circumstances, but only to a certain point.

There is a level of income needed by individuals to enable them to participate in a meaningful way in the life of their community. However, the research is also very clear that once a certain level of income is achieved, and this level varies from country to country, happiness does not also continue to increase. While income and wealth no doubt provide some security and choice, it quickly becomes a zero-sum game where continual increase makes no difference to reported happiness levels. Therefore striving to be rich will not, in itself, create greater levels of happiness, as counter-intuitive as this may seem! (Stefan Klein explores this rather well in his book, The Science of Happiness)

These are very powerful findings of a large body of research, strongly suggesting that just increasing income beyond a certain point does little to add to an individual's overall well-being.

For a useful review see Tim Jackson, [Prosperity Without Growth; Economic for a Fragile Planet](#), 2009, Chapter 3, Redefining Prosperity.

See also Eric Lambin, 2009, [An Ecology of Happiness](#)

Once a person's material needs are met, needs that are relative and comparable to one's own community, then increases in happiness tend to be more non-material. Relationships, experiences, creativity, all these become richer sources of well-being and happiness.

This song celebrates these simpler pleasures in life.

17 – Permanence

This song is a reflection on the impermanence of all things, despite its title. It is subtitled 'In a temporary sort of way,' which is the escape clause in the logic. While Buddhism claims that all things are impermanent in the universe, an accurate observation it seems, many people look for ways to stay grounded or anchored, even in a world that will change.

These are the notes to this song, which is found on [Simon's first album](#).

The opening lines of this song:

Getting lost in the [Hokonui Hills](#)
Standing on the top of those magnetic peaks
While clouds billowed all around our feet
Like white-sailed Spanish Galleons

Change is inevitable; those who can adapt positively to change will do better than those who resist or struggle with it. But we still need some sense of connection to permanence, even though it will be temporary. I find this experience of permanence in the Hokonui hills where I grew up (they are always there, waiting patiently for those rare occasions I get back), in that amazing rock pool in the river on the back road to Mataura where a million mayflies take on a thousand trout every summer evening, and in the meeting of hearts and minds with those special lifelong friends I have.