



Space Diplomacy and the ‘Overview Effect’

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Summary

Astronauts looking at Earth from orbital or lunar missions often say they cannot see borders and boundaries that mean so much to surface dwellers, an essential feature of the ‘Overview Effect’, a term the author coined to describe the identity shift that takes place for many space travellers. What does this portend for the future? Should we simply forget borders, since they are merely products of our minds? What about diplomacy, which is all about borders and boundaries insofar as it is about inter-*national* relations. Will the art of diplomacy change as nation-states send more residents to explore the rest of the solar ecosystem? This question seems more relevant than ever, while war rages, largely over borders and boundaries, in the heart of Europe. We consider how the ‘Overview Effect’ influences communication, persuasion, and bargaining among state and non-state actors active in determining the shape of our future spacefaring civilisation.

Keywords

‘Overview Effect’ – borders and boundaries – astronaut – cosmonaut

1 The Overview Effect

The space programmes of the 1950s and 1960s were funded primarily by sovereign states, not international bodies. Could it be, however, that space exploration will sound the death knell of nation-states as we know them today?

If this happens, it will be, in part, because of a phenomenon known as the Overview Effect. Therefore, to understand the impact of space exploration on diplomacy, we need to be clear about what the Overview Effect is.

In the fourth edition of *The Overview Effect: Space Exploration and Human Evolution*,¹ I defined the Overview Effect in the following way:

The **Overview Effect** is a shift in worldview reported by astronauts and cosmonauts during spaceflight, often while viewing the Earth from orbit, in transit between the Earth and the Moon, or from the lunar surface. It refers to the experience of seeing first-hand the reality that the Earth is in space, a tiny, fragile ball of life, 'hanging in the void', shielded and nourished by a paper-thin atmosphere. The experience often transforms astronauts' perspective on the planet and humanity's place in the universe. Some common aspects of it are a feeling of awe, a profound understanding of the interconnection of all life, and a renewed sense of responsibility for taking care of the environment.²

For the purposes of this article, I will add one critical component to the definition, which is the experiential realisation that the Earth is a whole system in which everything is interconnected and interrelated, and there are no borders or boundaries on its surface.

Astronauts say that they knew the planet would not look like the globes and maps with which all of us have grown up — with dotted lines between countries and different colours demarcating Kenya and Tanzania, the United States and Mexico. However, they knew it intellectually, not experientially. As a result, people who have had the Overview Effect experience clearly communicate differently about the Earth and space differently from those who have not. Their efforts to persuade the rest of us to change how we live and work together are passionate and seem sincere.

Once in orbit, en route to or returning from the Moon, distinguishing features fade, and they begin to see the whole rather than the parts. The lack of borders and boundaries is particularly striking as part of the 'overview', and it has quite an 'effect' on their thinking. Perhaps the best way to understand the impact of this perspective is to quote some of the astronauts themselves:

¹ White 2021.

² White 2021, 5.

There you are — hundreds of people in the Mideast killing each other over some imaginary line that you're not even aware of and that you can't see.

From where you see it, the thing is a whole, and it's so beautiful. You wish you could take one in each hand, one from each side in the various conflicts, and say, 'Look. Look at it from this perspective. Look at that. What's important?'

APOLLO ASTRONAUT RUSSELL L. ('RUSTY') SCHWEICKART³

You can't see the boundaries over which we fight wars, and in a very real way, the inhabitants of this Earth are stuck on a very beautiful, lovely little planet in an incredibly hostile space, and everybody is in the same boat.

SHUTTLE ASTRONAUT DON L. LIND⁴

You don't see the borders, you don't see political borders, you hardly see geographical borders.

SHUTTLE AND INTERNATIONAL SPACE STATION ASTRONAUT TRACY CALDWELL DYSON⁵

Astronauts tend to return from their missions with a heightened environmental awareness, deep concern about war and peace, and a new understanding that 'we're all in this together'.

The question is, what does this new awareness mean for diplomacy, including space diplomacy, and the future of international relations? In this context, 'space diplomacy' can have two meanings, namely (1) negotiations by Earthbound national actors about space exploration, development and migration, and (2) future negotiations by spacefaring nations and other actors located off-planet. The former still fits into the paradigm of international relations, while the latter may open a discussion of inter-planetary relations.

³ White 2021, 16.

⁴ White 2021, 313.

⁵ White 2021, 463.

2 The Importance of Borders and Boundaries

We do not need to travel to Low Earth Orbit or the Moon to realise that there are few, if any, real borders on the surface of the Earth.

I live in Massachusetts, and when I drive north, I eventually see a sign that says, 'Welcome to New Hampshire'. As I continue driving, there is little or no indication that I am in another state. There are no markers on the ground and the trees don't look much different.

This lack of perceived borders and boundaries between American states does not strike anyone as odd or extraordinary. Of course, the situation is different if you go from one country to the other. Once again, you cannot see lines separating Canada from the United States, but there may be a checkpoint to pass through and documents to be shown.

Beyond nations, we could cite example after example of borders and boundaries that cannot be seen but are understood to be there. I can't see any kind of marker between our yard and our neighbour's, but they know it is there and so do we.

Thus, when we consider diplomacy's history, the existence of borders and boundaries marking the administrative territory of a state or empire is what brings the art of negotiation into being.

Critical to this distinction, also, is the threat of the use of force by one unit against the other. The Chinese built the Great Wall to keep hostile invaders out of their empire. Hadrian's Wall fulfilled a similar function. By contrast, the European Union dropped the separation of countries in Europe when it became clear that historic enemies like Germany and France would probably not take up arms against one another again.

However, as the Russian invasion of Ukraine demonstrates, achieving union peacefully is not always the priority. In fact, one might say that Vladimir Putin respects no borders between the two countries, and he is trying, in his own way, to create a unity by force. By activating his armed forces according to this worldview, Putin has created immense collateral damage, including to international co-operation in outer space. Russia is threatening to withdraw from co-operative agreements with the West in numerous areas, including the International Space Station (ISS).

Borders and boundaries can exist without being barriers, and without armed forces securing them. If this is the case, then what might be the future of diplomacy in a borderless world? Looking somewhat farther into the future, what might be the future of interplanetary diplomacy?

3 A Thought Experiment: A Borderless Earth

As far as I know, no one has yet attempted to evaluate the long-term impact of astronauts realising that '[t]here are no borders or boundaries on the Earth'. If a new collaborative spirit began on Earth, we might hope that it would carry us forward as we become a spacefaring species. While this is a topic worthy of detailed analysis, let us focus our thought experiment on the 'no borders, no boundaries' statement, with two examples.

3.1 *US–Mexico Border*

Clearly, a border can be more or less permeable without any formal agreement between sovereign states.

During the Trump Administration, a 'zero-tolerance' policy meant that travelling from Mexico into the United States was difficult. The immigration laws were interpreted strictly. Under the Biden Administration, the laws are interpreted more flexibly, and border crossings have increased dramatically.

It may not be what its critics call an 'open border policy', but it is more open than before. The laws have not changed, but the policies have. The border is still there, but it is less meaningful.

3.2 *The European Union*

A few years ago, I was in the Netherlands for a conference. Some of the attendees wanted to go to Germany to see a Whole Earth display. Having lived in Germany in the 1950s and in England in the 1960s, I was amazed at the fact that they considered it no more complicated than my drive from Massachusetts to New Hampshire.

In this example, sovereign states had made agreements that allowed their citizens freedom of travel from one country to the other. If you were to look at a map, you would still see a border between Germany and the Netherlands, but it would have no practical impact on the ground.

The European Union is only one region of the Earth, but can we imagine a borderless planet?

Let us remember that the idea of a European Union seemed like a pipe dream to observers in the middle of World War I or World War II. It did not happen by chance, but because people worked tirelessly to create it. The US–Mexico border is not so far from the same story. It is not that more people are crossing because of their own hopes and dreams alone, but because of policies enacted by governments encouraged by advocates to do so. Some observers have long advocated a North American Union that would allow for much easier flow of goods and people between Canada, the United States and Mexico.

Perhaps, then, we can imagine a borderless world, but is that really what we want? Perhaps the primary contribution of the Overview Effect to diplomacy and international relations is this: national borders are a social construct and societies can choose to change them to serve the greater good.

4 Transcending the Paradigm

'Astronaut awareness' can, of course, be understood as an argument for 'open borders', a situation in which people move freely from one country to another, without hindrance.

However, the other side of the coin is that the astronauts see the Earth as a whole system. The borders and boundaries are in our minds, but not within the planet's 'mind'. In this way, the Overview Effect could lead us to a world in which national borders remain intact, but our leaders fully understand that they must transcend this perspective to confront the challenges we face as a civilisation. As the Overview Effect experience becomes more widespread, through virtual reality or commercial spaceflight, leaders of the future may well communicate, bargain and persuade with a very different worldview.

We may take climate crisis negotiations as an example.

A recent article highlighted how the Overview Effect offers a solution. The author, Waleed Aly, noted that Jeff Bezos attended the COP27 conference and had this to say about his recent suborbital spaceflight:

I was told that seeing the Earth from space changes the lens through which you view the world, but I was not prepared for just how much that would be true ... from up there the atmosphere seems so thin, the world so finite and so fragile.⁶

Aly did not completely trust Bezos' 'conversion experience', but 'leaving cynicism aside', went on to say:

He's coming from a perspective not one national leader at that conference can possibly share because none can have his 'overview'. Bezos is responding to a marble with no borders. And yet without those borders, none of the leaders in the room would exist.

⁶ Aly 2021.

That's the central, giant contradiction at the heart of climate politics. At bottom, it is a collection of national leaders with national constituencies, presiding over national economies and pursuing national interests, while trying to solve a crisis.⁷

Aly is right, of course, and this is why so many astronauts have dreamed of the day when world leaders can travel above the Earth's surface and see it as a whole system demanding holistic policies.

Bill Nelson, who served in both the House of Representatives and Senate, and is the current NASA Administrator, flew on the Space Shuttle in 1986. In an interview for my book, he told me:

If the superpower leaders could be given the opportunity to see the Earth from the perspective from which I saw it — perhaps at a summit meeting in space in the context of the next century — they might realize that we're all in this with a common denominator. It would have a positive effect on their future decisions concerning war and peace.⁸

This idea recurs frequently in my interviews with astronauts. At the time of Nelson's statement, spaceflight was too dangerous to imagine world leaders risking it. However, today, the opportunity is within reach on spacecraft such as Bezos' New Shepard and other commercial spacecraft. Moreover, high-fidelity virtual reality renditions of the Overview Effect are becoming available on a wide scale.

Perhaps sending the presidents of the United States and China, with their retinues of security and other forms of support, into orbit is not yet realistic. However, these leaders could certainly experience the Overview Effect with virtual reality headsets, and other prominent people could do so on a commercial spaceflight. In fact, we have already seen 'influencers' like William Shatner of *Star Trek* fame take suborbital hops and come back with quite a lot to say about what they saw and felt. In addition, Virgin Galactic has some 800 people signed up for its future flights, and many of these future fliers are well known to the public.

All of this is part of a movement called 'Bringing the Overview Effect Down to Earth'. The idea is that if large numbers of people experience what the astronauts experienced, they will have a new awareness of our place in the universe and work to make the world a better place.

⁷ Aly 2021.

⁸ White 2021, 343.

It is for this reason that I believe experiencing the Overview Effect should be a human right and a societal responsibility. If it is such an important experience, it should be available to all.

Perhaps we do not have to abolish borders and boundaries to have a shift in awareness of what they actually mean — and don't mean.

In other words, could we see that the imaginary lines on the surface of the globe are indeed *borders, but not barriers*?

5 Implications for Space Diplomacy

Just as there are no borders or boundaries on the Earth, there are none in outer space. Through crewed and non-crewed missions, humanity has learned a great deal about the solar ecosystem, and it is an open system of which the Earth is a part. Moreover, as the space philosopher Nick Nielsen points out, we will never have quite the same 'Overview Effect' with other planets as we have with our own.⁹ Take Mars, for example: humans did not evolve on Mars (as far as we know), and we have not had the experience of growing up on the surface, then rocketing into Martian orbit and looking back in surprise at the Red Planet. In other words, we have always had an 'overview' of Mars.

As humans evolve outwards, we will begin with a perspective it has taken us millennia to achieve on Earth. Moreover, the borders and boundaries issue takes a different turn legally on other celestial bodies. In 1967, most of the nations of the world signed a UN agreement popularly known as the 'Outer Space Treaty', which bans claims of sovereignty by any state that is party to the agreement.¹⁰ According to space law, the United States, Russia, China and other countries are free to travel anywhere in the solar system they choose, planting rovers and people on the Moon or Mars, but they cannot say, 'This piece of land is American (or Russian, or Chinese) soil.'

This means that we cannot and should not imagine a 51st state near Mount Olympus on Mars or a Russian administrative district near Shackleton Crater on the Moon.

The Outer Space Treaty is, however, vague on the question of private property. For that reason, it is theoretically possible that an individual or corporation could lay claim to those locations and make a case for their actions.

⁹ Nielsen 2016.

¹⁰ United Nations Office for Outer Space Affairs, n.d.

What does all of this mean for diplomacy when humanity becomes a multi-planet species? Given that there cannot be national claims of sovereignty once we leave the home planet, is this the end of diplomacy as we know it? No, not quite, because there is now plenty of room for *interplanetary diplomacy*, and perhaps a great need for it.

While there may be no dotted lines on the Moon or Mars marking off the settlements of Earth-based countries, there are natural boundaries between celestial bodies, which we call 'space'. The distance between the Earth and the Moon is not much of a barrier, but the miles between Mars and our home planet are many and a trip between the two takes months.

It is not difficult to imagine Earth and Mars being in conflict and needing diplomacy as an alternative to war. In fact, a television series called *The Expanse* has imagined this scenario so accurately that members of the space community frequently ask, 'Will we have a *Star Trek* future or an *Expanse* future?'

By that, we mean the following: do we think humanity's expansion will be as representatives of a united Earth and united federation of planets, intent on exploration rather than exploitation (*Star Trek*), or will we project our current behaviour patterns out into the solar ecosystem (*The Expanse*)?

A great deal depends on how space communities are funded and under whose auspices they are founded. Will they be government entities, privately developed, or public-private partnerships?

Moreover, building on planetary surfaces may not be the best way to go. In the 1970s and 1980s, Dr Gerard K. O'Neill advocated creating space communities in 'free space' out of in situ resources, such as asteroids.¹¹

Another issue is the extent to which the Overview Effect permeates the policies and politics of Earth. The decision by the United States to create a 'Space Force' may be an indication of how the future will unfold.¹² Therefore, if interplanetary war is even a possibility, then there is a role for interplanetary diplomacy as well.

In the meantime, it appears that the Department of State will not yet be replaced by the Department of Space, and diplomats on Earth and beyond will have a career path far into the future.

¹¹ O'Neill 2019.

¹² White 2019.

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