Russia's Mir space station is backdropped over the blue and white planet Earth. Photo by NASA, Wikimedia Commons.

Russia: Space Power And Strategic Culture – Analysis

February 23, 2018 - Nayef Al-Rodhan

By Nayef Al-Rodhan

Strategic culture is the collective memory and culture of a nation. It is an understudied, but vital variable in shaping any nation's governmental policies and its behavior when pursuing its national interests. Russian strategic culture has been the focus of numerous studies. The concept "strategic culture" was actually coined by Jack Snyder in the 1970s, when analysing the Soviet Union's "attitudes toward limited nuclear war".

In this seminal work, he emphasized the importance of culture and idiosyncrasies in shaping foreign policy choices. He argues that: "neither Soviet, nor American strategists are culture-free, preconception-free game theorists. Soviet and American doctrines have developed in different organizational, historical and political contexts, and in response to different situational and technological constraints." In his view, strategic culture implies a process whereby individuals are socialized into a distinctive mode of strategic thinking, be it American, Soviet, or that of another nation.

Today, the paradigm of strategic culture remains extremely relevant. No country's foreign policy and strategic choices can be understood without an understanding of its larger historical, ideological and cultural heritage. Russia's status as a space power needs to be understood in relation to its strategic culture: both as a product of that culture and an element in shaping it for the future.

Like every other state in the international system, Russia is inherently emotional, amoral and egoistic. State emotionality is defined as the set of idiosyncratic factors that influence a state's foreign and domestic policy, and includes factors such as religion, cultural heritage, historical

narratives and norms. Amorality in states, like in individuals, refers to the lack of an 'inborn' moral or immoral character, and the existence instead, of a malleable and fluctuating moral compass, shaped by the environment. State egoism is the rational, Realist portion of state behaviour, concerned with survival and the preservation of national sovereignty – meaning a state pursues what it perceives to be the best for it.

Often states will have similar ideas of what is beneficial or not, but differences in strategic cultures add a lot of variability that policy-makers must be aware on for predicting other state's behaviours. There are several core aspects to Russian strategic culture: the continued maintenance of the ruling class' legitimacy; the importance of patriotism and victimhood; and a 'martial' political culture which has contributed to the militarization of Russia's strategic culture. Due to these factors, Russia's planned space projects are ambitious, even when funding and infrastructure do not support their implementation. Moreover, Russia sees space as necessary for its security. Since the collapse of the USSR, Russia has increasingly felt threatened by NATO expansion. This victimhood narrative feeds feelings of patriotism, providing popular support for space activities. Both patriotism and legitimacy – crucial factors of Russia's strategic culture – clearly influence current space policies and serve as both motivators and predictors of how the government will behave.

Russian Strategic Culture

The government's obsession with legitimacy has historically been described as a "cult of personality", for example under Stalin. In modern Russia, Putin has such a role. His popularity is almost unparalleled in modern times and a striking feature of this high approval rate is that it does not extend to the supporting government. The post-Soviet remarkable economic growth and increases in living standards are accredited to Putin, granting him much of the legitimacy he enjoys today. Putin presided over huge improvements in several social and economic spheres, and has branded himself into a figure able to bring and maintain 'stability' in Russia. He has dissolved much of the bureaucratic red tape required for setting up businesses in Russia, lowered inflation and increased pensions.

Nationalism is another key characteristic of strategic culture. Russians have constructed a clear self-association with patriotism, toughness and survival. In World War IImore Russians died than any other country's soldiers. They were crucial to an allied victory in Europe and were often victorious against all odds. These heroic stories are hugely important for Russian nationalism and a narrative of toughness, survival and holding out against oppressors – and a strong sense of "us" versus "them".

Initially, oil and gas wealth bolstered Russia's household income considerably, leading to increased legitimacy and government approval and contributing to the construction of the strategic culture outlined above. However, the financial crisis brought this prosperity to an end, and has had disastrous impacts on the Russian space program.

Russia's ventures into Outer Space

By launching Sputnik-1 in October 1957, The Soviet Union started the space race. At the time, the launch had huge geopolitical implications and turned, apparently, the balance of power between the two Cold War Superpowers in favour of the USSR. This initial moment of glory was short-lived, as the

US not only caught up but soon gained a competitive advantage by landing a man on the Moon in 1969.

However, in the Russian collective memory, the great space successes of the 1957-1965 interval remain as proof of the scientific and technological greatness of the Russian People, which will forever make Russia the historical pioneer of space travel, in the direction shown by the "Father of Cosmonautics", Konstantin Tsiolkovsky. It is also important to add that the Soviet-Russian space "premieres" were realized at a time when, under the leadership of Nikita Khrushchev, there were great hopes of opening and modernization of the Soviet society and economy. So space was associated with a period that was forward-looking and hopeful, and was part of a culture focused on science and engineering excellence – granted, that is still an objective of the current Russian leadership.

The following years were a period of steady decline for the USSR, culminating in the breakup of the Soviet Union and subsequent economic turmoil. However, the Soviet Union remained a world leader in space until the severe political and economic crises of the 1990s. During this time, its ambitions in space could no longer be matched by appropriate funding. The steady decline was reversed in the 2000s, partly with oil and gas revenues, reigniting Russia's space ambitions. Yet after being outpaced by the United States in the 1990s, both in terms of spending and achievements, Russia is still struggling to affirm itself as a leading space-faring nation.

Russia's space programme is both a reflection of its strategic culture and a factor in defining it. Its space projects reflect decades of domestic instability, pride and rising nationalism, as well as repeated attempts to rebrand itself as a strong and indispensable global political leader. Like the US, Russia has its own space agency, known as Roscosmos. Roscosmos replaced the Federal Space Agency in 2015 and is heavily involved in the International Space Station (ISS) (second only to the US). It continues to develop several very ambitious projects of its own, including the Luna-glob, the Venera-D, and the Phobos-Grunt Mars Mission. Yet a defining characteristic of the Russian space program is its severe financial woes, which have entailed slow progress.

Yet Russia does have a very impressive track record on the International Space Station (ISS). It launched the first ISS module, the Russian Zarya control module, back in 1998 and has also contributed the Zvezda service module and the Rassvet research module. Russia also provides cargo flights to the ISS using the Progress spacecraft. Despite political tensions between Russia and various countries, Roscomos remains active in collaborative space projects. This is not only reflected by its work on the ISS, but also by its ongoing negotiations with NASA regarding a possible joint mission to Venus, its provision of engines for the US Antares Rocket, its discussions on a joint Russian and Chinese space studies centre and its cooperation with the European Space Agency (ESA) in the ExoMars mission. Recently, Russia also indicated its willingness to extend its partnership on the ISS beyond 2024 (the ISS is set to be decommissioned in 2024 or 2028), hinting that cooperation in space between Russia and the West may endure, despite their tense relations on Earth.

Crucially, Russia maintains total control over the deployment of astronauts to the ISS, as the only platform for launching the Soyuz spacecraft (used to transport astronauts to the ISS) is the Baikonur Cosmodrome in Kazakhstan, which is leased by the Russians. Russia has maintained a reputation for excellent reliability when launching rockets into space, which perhaps represents its space programme's strongest asset and is also something the country takes much pride in. Even the US,

which typically has been Russia's main competition in space (albeit usually friendly), must rely on Russia for use of the Baikonur Cosmodrome, and thus access to the ISS. After 2011, NASA shifted to having its astronauts take off from Baikonur.

Russia has begun plans to build and control its own launcher, this time on Russian territory – in Vostochny (East Russia). Yet Russia's contracts with NASA have an uncertain future, and are only guaranteed until SpaceX and Boeing start human launches. Roscosmos will thus have to contend with fierce competition from private companies such as SpaceX and Boeing, as well as the rapidly-progressing Chinese space programme to secure the necessary contracts to continue launching astronauts into space. So far, the construction of the Vostochny cosmodrome has been hindered by soaring costs and strikes. Worryingly for Russia, in March 2017 Space X successfully launched a reused rocket – a global first – representing an important step in lowering launch costs and demonstrating a high level of technical sophistication, implying Russia will have to make up ground. Nonetheless, Putin stated that Roscosmos will aim to compete with private companies.

The push for a comeback

During the Soviet years, between the 1950s and 1960s, Russia enjoyed its golden space age. This was a time when Russia broke many world records, including successfully putting the first human into space. Currently, Russia is far from a golden age, as Roscosmos is constantly plagued by delays and failures due to a lack of funding. The last time Russia succeeded in an interplanetary mission was in 1984 – to Venus. The numerous failures of the Russian space programme have even drawn criticism from Putin. The most recent failure came in 2016, when the joint ESA-Roscosmos Mars mission lander – Schiaparelli – failed to correctly deploy its landing gear, shedding doubt on both space programmes' ability to land hardware on the planet. Roscomos is now responsible for redesigning the landing gear, representing a crucial opportunity to break an extended period of failure. Other failures include the delayed launch of the Luna-glob moon orbiter, which was scheduled for 2012 but has now been postponed until 2024 at the earliest. The programme in fact started many years ago, in 1997, but a lack of funds has delayed its realization. Technical failure has also been commonplace.

In 2012, the Phobos-Grunt Mars Mission saw a probe crash into the Pacific Ocean. Roscosmos also suffered three separate launch failures in 16 months of the Breeze-M Proton Rocket upper stages, as well as booster failures in 2013. Orbiting satellite failures were also recorded in 2015.

In January 2016, Roscosmos proposed its 10-year plan, outlining future Russian contributions to the ISS, new space experiments and plans for human exploration. Though it was approved by the Russian government, financial troubles due to low oil and gas prices have caused the original proposal's funding to be slashed. In late 2016, it was announced that the Russian space programme would receive 92.5 billion rubles (US$1.47 billion) for its 2016-2025 budget, constituting a further budget slash than was previously thought and a reduction of 12 million rubles (US$190,000) compared to the previous year. There will be cuts of 3.4 billion rubles (US$53.5 million) in 2018 and 2.9 billion (US$45.7 million) in 2019. In fact, the Roscosmos budget for the next decade roughly equates to NASA's annual budget, begging the question of how Russia will be able to increase its status as a major space-faring nation and how it will be able to successfully finance its ambitious planned series of lunar and planetary missions and several space launches announced as part of the 10-year plan.

Indeed, Russia's culture of strong state legitimacy seems to be transitioning towards some uncertainty especially in its relationship with the West in general, and NATO in particular. Similarly, nationalism may evolve into a need to be better or stronger; to prove that Russia can hold its own in the face of injustices, real or perceived. Russia will need to improve the funding of its space program and achieve some successes which will enhance both arms of its strategic culture, namely, legitimacy and patriotism.

With the planned decommissioning of the ISS in 2024, continued NATO activities in Eastern Europe and the persistent financial woes that plague Russia, the state will find ways to prove its legitimacy and to boost patriotism, whether this is in space or not. However, since the technical capabilities of the Russian space industry remain excellent, and even unique in some domain like rocket propulsion, its partnership with China, ambitious and with great financial means, but lacking in some technologies, could make a Chinese-Russian space alliance an attractive possibility for Russia, which could lead to a real global competitor to the US global space leadership.

***Prof Nayef Al-Rodhan**, (http://www.sustainablehistory.com/ and https://oxford.academia.edu/NayefAlRodhan), Honorary Fellow at St. Antony's College, University of Oxford, and Senior Fellow and Head of the Geopolitics and Global Futures Programme at the Geneva Centre for Security Policy, Geneva, Switzerland. Author of "Meta-Geopolitics of Outer Space: An Analysis of Space Power, Security and Governance," (Basingstoke: Palgrave Macmillan, 2012). Tweets at @SustainHistory*