

Regime Theory and the Study of Outer Space Politics

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JILL STUART, SEP 10 2013

The politics of outer space are not as 'out there' as some may think. Issues regarding human activity (real and imagined for the future) in the cosmos include satellite regulation, collision liability between space objects, reconnaissance legality, weaponisation, the governance of the International Space Station, and celestial 'territory' ownership. Although these issues are mainly 'played out' roughly 70 miles above the planet's surface, they are very much embedded in terrestrial politics, developed in the meetings, memoranda and minds of actors on earth.

Since e-IR has been reflecting on the 30 years since the publication of the *International Organization* issue on international regimes, Oran Young, Peter Haas and others have rightly asked what regime analysis continues to offer contemporary IR scholars. Young asks the question: does regime theory offer a 'source of inspiration for researchers interested in understanding the conditions governing international cooperation'. Relating to the study of outer space politics, the answer is an unabashed 'yes'. As a neutral territory in which multiple actors have interests but none has exclusive rights or control, and where normative discourses (and norms) of cooperation sit alongside self-interested state *realpolitik*, the notion of regimes has proven to provide enduring explanatory purchase.

Outer Space Regimes

As a transnational and norm-governed area, outer space has the characteristics of a global common. A common is a resource to which no single decision-making unit holds exclusive title (Vogler 1995, 2); an "environmental object" which should not be appropriated to any individual group (Crowe 1969, 1103). Those such as the late Nobel Prize winner Elinor Ostrom studied how actors come to coordinate activity over a shared resource in order to avoid a 'tragedy of the commons'.

As in other local and global common scenarios, actors with interests in outer space have pursued coordination in order to establish 'governance without government' of the cosmos, and over the last 50 years actors' activity in outer space has come to be constrained by a complicated array of regimes. Considering the nature of these regimes, Krasner's classic definition remains fit for purpose: "A set of implicit or explicit principles, norms, rules, and decision-making procedures around which actor expectations converge in a given area of international relations" (Krasner 1983, 2).

A (non-exhaustive) list of outer space regimes includes:

1. "The Outer Space Treaty of 1967" (OST);
2. the "Rescue and Return Agreement of 1968";
3. the "Liability Convention of 1972";
4. the "Registration Convention of 1974";
5. the regime to govern geostationary satellite allocation; and
6. the regime to govern the International Space Station.

Regimes: How, Why, What?

As part of the process of outer space regime formation, geopolitics often (if not always) have played a clear role in the

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interest-development of actors. Some actors have more influence over what form of governance is established due to power asymmetries and by having the technological capability to be the first to access and exploit the outer space realm.

Epiphenomenon or Intervening Variable

It is one of the strengths of regime theory that, using rational actor models as a base, it can be understood why actors may come to establish a regime, even if out of self-interest. Here the concept of regime as epiphenomenon/intervening variable is relevant. Whether or not regimes are merely epiphenomenon (established at the behest of hegemonic actors for their benefit) or intervening variables (coming to have an influence over actors' interests over time) remains a lively topic of debate. In line with Grotian approaches to regime theory, this relates not only to the question of what regimes' influence is, but also how they evolve over time. That is, because regimes are often established based on the interests of powerful actors and therefore may initially be epiphenomenon, over time they may evolve to have an influence of their own.

The OST of 1967 was the first major 'formal' regime for outer space, in that it was explicitly written into a treaty by the UN Committee on the Peaceful Uses of Outer Space, and subsequently widely ratified by states worldwide. It established outer space as neutral territory, the 'province of all mankind', and declared that it remain free of nuclear weapons and other WMDs. This language is normative, but was born in part from hard Cold War politics. Neither the US nor the USSR felt they could 'control' outer space over the other, and hence it was better to require the other submit to it being free from appropriation and weaponisation. Also both countries wanted free overflight for the purposes of launching reconnaissance satellites to pass over the others' territory.

So far, so epiphenomenal.

However over time this regime has become part of the preconstitutive framework through which actors understand their activity in outer space. Actors approach activity in space with a set of norms, rules, principles and decision-making procedures based on this treaty, which is already constraining their interests and behaviour. Further regimes for outer space have been framed within the context of the OST. Even when more radical challenges to outer space governance have been made, they have been made in the *context* of the OST. For example, in the 1970s, a group of states laid claim to a particular satellite orbit in what was called the Bogota Declaration. Yet instead of saying that the OST was illegitimate, the contending states said that this orbit was *exempt* from the OST.

Formal and Informal Regimes

Some international treaties may be codified but never garner widespread internalisation (and the Bogota Declaration mentioned above is one such case)—thus failing to garner status as a regime. Conversely, regimes may never be formalized, yet maintain influence over actors. Regimes may be spontaneous, negotiated, or imposed (Young 1983, 98-101). Formal regimes are "legislated by international organizations, maintained by councils, congresses or other bodies, and monitored by international bureaucracies" (Hopkins and Puchala 1983, 65). A regime, if it has come to embody 'norms, rules, principles and decision-making procedures,' and is then codified and legislated, may become international law. Yet an international law, without the social internationalisation amongst relevant actors, does not necessarily make a regime.

As an example, the Moon Treaty of 1984 was codified by the United Nations, but had low ratification and was not internalised amongst relevant actors as legitimate. Therefore it was international law but never established formally as a regime—it was written down on paper but never developed the social buy-in amongst relevant actors to give it any influence over actors' interests or behaviour.

Informal regimes are "created and maintained by convergence or consensus in objectives among participants, enforced by mutual self-interest and 'gentlemen's agreements,' and monitored by mutual surveillance" (Hopkins and Puchala 1983, 65). Informal regimes arise out of a less tangible and visible social context in which actors' expectations evolve over time, norms of behaviour are established, and activity is coordinated in order to avoid a

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tragedy of the commons—without a formal codification of that regime ‘on paper’.

The regime to coordinate radio-frequency usage between satellite users is an example of a regime that was initially informal. Satellites use radio-frequencies to transmit to earth, and their usage of the same frequency may result in mutual communication disruption. In order to avoid interference, all coordination between satellite launchers was initially done ad hoc. Eventually a regime to coordinate not only frequency usage but also orbital slot allocation through the International Telecommunications Union was established.

Formal treaties may fail to evolve into proper regimes (as with the Moon Treaty or Bogota Declaration), and informal regimes often evolve to become codified into formal legislation. Regime theory analysis provides us with the terminology and conceptual framework to consider these nuanced stages through which governance systems may pass.

Diffuse, Specific, and Mediating Regimes

When the complex regime to govern the International Space Station was being developed, issues arose such as the “ownership” of various components of the Station, and the liability if the Station crashed into earth or another space object causing damage. The regime developed to govern the ISS was specific, but it was embedded in the preconstitutive normative and legal environment established by pre-existing outer space regimes.

Regime theory provides the language and tools to analyse the ways in which issue areas subject to governance regimes interact. Specific regimes are single-issue and diffuse regimes are multi-issue (Hopkins and Puchala 1983, 64). Diffuse regimes are more likely to have a significant number of actors who subscribe to their principles or at least adhere to their norms (Hopkins and Puchala 1983, 64). Specific regimes are often embedded in diffuse regimes (Hopkins and Puchala 1983, 64).

Thus regimes become nested in others. Some regimes may also develop to mediate between two other pre-existing regimes—such as with the agreements that are evolving to establish coordination between the world’s various global navigational satellite systems (e.g. the regime for GPS and that for Galileo is mediated by a broader GNSS regime).

Issues for the future

Regimes sometimes constrain actor behaviour and shape actor understandings and expectations; however they are also very much an evolving product of political change, power and interests. In outer space, technological, military and other unexpected developments also regularly change the political landscape. I believe that forthcoming issues include space resource mining, the on-going debate about weaponisation, the legal and liability issues surrounding space tourism, space debris, and to a lesser extent, the threat from comets and asteroids.

Does regime theory remain useful in the research agenda for understanding how these issues are addressed? Absolutely. I believe that the nuanced range of writings that have developed on regimes over the last 30 years provide us with useful tools to consider how actors will manage these issues, building norms, leading to the evolution of formal and informal regimes (some already existing, some still to emerge) to provide at least some level of coordination and management of actor expectations.

One glaring area, however, that must be better considered by regime theory authors in order to maintain the utility of the approach is the role non-state actors play in regimes. Although traditionally only states were considered to be legitimate players in regimes, with non-state actors as ‘participants’, in outer space, where commercial entities and even individuals (as tourists and high-powered investors) come to have power, the regime theory literature must consider how to incorporate them into the research as full players in the outer space regime.

Regime theory may not be the *only* approach a researcher needs for studying outer space politics, and often overlapping methods will provide a more nuanced explanation or understanding. And regime theory does not for the most part represent a grand theory capable of providing generalizable conclusions. Certain trends and ideas are

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enduring and should be further developed, but regime theory does not—nor should it try—to present a template answer for understanding politics. It does, however, provide us with tools for understanding those instances in which actors pursue coordination in areas of complex governance, such as the realm of outer space.

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