Sub-State Organizations as Foreign Policy Agents
New Evidence and Theory from India, Israel and France

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Abstract

The extant scholarship in international relations (IR) does not completely account for the role of sub-state organizations (SSOs) in foreign policies of states. Yet, international cooperation, especially, in specialized areas like defense, space and nuclear technologies that are technologically complex frequently witness extensive involvement of the SSOs. In other words, the SSOs act as foreign policy agents driving the international partnerships. Why does this happen, and what are its causal mechanisms? In this study, we conduct a plausibility probe on the role of SSOs through examining India's partnership with France and Israel in specialized domains of nuclear, space and defense technologies, and find that the foreign policy elites within the government frequently defers to relevant SSOs when specialized knowledge and expertise are required, thus conferring foreign policy agency to the SSOs. We also find that the SSOs select their international partners based their goals of efficiency, and common institutional designs and organizational cultures. Our conclusions lead us to draw scholarly attention to this largely ignored yet significant actor in foreign policy decision-making.

How do states identify the right partners for international cooperation? Why do states develop partnerships in specialized areas with certain countries and not others? Which national institutions actually make those choices and then enact cooperation policies? The extant scholarship in international relations prioritizes three main variables: shared national security interests, similar political institutions and overlapping cultural norms. While a useful framework of analysis, these three sets of variables fall short of accounting for the plethora of significant international partnerships where none of the factors are found to be decisive. Specialized areas like defense, space and nuclear technologies are technologically complex. International cooperation in these fields, therefore, necessitates a level of technical expertise that is not always widely available in the foreign policy executive (hereafter, FPE). As a result, international cooperation in specialized areas offers *agency* to sub-state organizations (hereafter, SSOs) to exercise control over foreign policy behavior beyond their official mandate. SSOs are organizations that are a part of the government machinery but lack the official mandate to unilaterally devise and execute policy. For the purposes of this study, we will concentrate on SSOs in the specialized fields of defense, space and nuclear technologies, and their role in international cooperation.

Without adequate analysis of SSOs, the study of international cooperation in specialized domains would remain incomplete: assistance and exchange between publicly unfriendly or indifferent countries might seem mere anomalies, and proactive SSOs be looked upon as mere aberrations. Why did Turkish defense industries actively engage with Israeli defense companies for the past two decades in spite of limited, if not adverse, bilateral political relations? Why did India seek

out France for the development of nuclear and space cooperation in the 1950s at a time of bilateral diplomatic tensions? Why did the Indian Finance Ministry favor cooperation with its American counterpart despite Prime Minister Nehru's policy of nonalignment in the Cold War?[1] What explains New Delhi's extensive defense cooperation with Israel— a country it did not have diplomatic relations with for the entire Cold War? We argue that the answer in each of the above cases lies in SSOs with the specialized expertise that have dominated policy outcomes, sometimes overriding the FPE, and thus have also gone beyond their legal mandate of action. These SSOs form part of the state machinery but that often have different interpretations about how best to serve the foreign policy agenda and goals defined by the FPE.[2]

Under which conditions do these particular SSOs choose their international partners? Precisely, how do they select their partner organizations in foreign countries? These are questions we seek to address in this paper by building on insights on organizational behavior from sociological institutionalism and business alliance models. Organizational Process Models (OPMs) have generally been employed to explain crisis decision-making in the context of U.S. foreign policy, notably to account for the bargaining processes, which lead to policy compromises due to bureaucratic politics or to demonstrate how organizational routines can constrain the formation and implementation of foreign policy options.[3] However, there has yet to be a comprehensive attempt to draw insights from the OPM literature to explain the dynamics of international cooperation between SSOs.[4]

Building on some of the assumptions of OPM scholarship, we expect that the SSOs are primarily efficiency-driven, and less motivated by political considerations when forging international

relationships with similar institutions abroad. These SSOs often do so by circumventing the traditional institutions in charge of promoting and cultivating international bilateral relationships, namely, the foreign ministry, on the one hand, and by garnering support of the executive elites and/or banking on their indifference, on the other. In this study, we conduct a plausibility probe to assess the presence and relevance of these causal mechanisms in the cases of India's nuclear, space and defense collaboration with Israel and France. Our study contributes to debates concerning foreign policy analysis about the largely understudied but potentially significant input of specific SSOs in the selection and maturation of certain bilateral international partnerships.

The structure of this paper is as follows. The first section surveys the extant scholarship on bilateral partnerships, underlining the limitations of these studies. The second section explains our theoretical model of SSO-driven international cooperation. The third section examines the case studies demonstrating the key role of SSOs in nuclear, space and defense cooperation between India and France, and in defense cooperation between India and Israel. The fourth and final section summarizes the conclusions of this study, and their implications for future scholarship.

I. Weaknesses of the Dominant Explanations for International Partnerships

The three grand theories of international relations (IR) underline three major factors behind international cooperation, namely, shared national security interests based on common threats (realism), similar political values like democracy (liberalism), and compatible cultural norms (constructivism). The micro-level dynamics that fall beyond the scope of the three major

theoretical paradigms do not generate adequate scholarly attention. This study aims to correct this gap through an examination of SSO-driven bilateral partnerships. The major loopholes of the three dominant theoretical paradigms are presented below.

First, common national security interests offer a facilitating condition for bilateral partnerships but these by definition do not successfully establish the causal mechanisms. They provide the context on the backdrop of which states might agree to cooperate. The logic of shared security interests causing interstate cooperation is straightforward: states that share security concerns or face similar threats, are more likely to cooperate, especially in areas where they can both augment their material capacities to balance external threats.[5] However, the realist paradigm cannot completely account for why bilateral rapprochement occurs in the presence of shared security threats only in certain cases and not in others. Furthermore, there are instances when bilateral defense or technological partnerships emerge in the absence of any shared threat. As a result, while shared threats and common national security interests can be an enabling condition for international partnerships, these are neither a sufficient nor a necessary condition to account for certain cases of bilateral partnerships in specialized technological domains.

Second, the democratic peace theory of the liberal tradition argues that democratic states do not fight against each other.[6] The democratic peace theory is at times expanded to argue that states of similar political regime types have converging interests beyond shared security threats. Stephen Walt states that "ideological solidarity" facilitates cooperation among states with comparable domestic institutions.[7] However, not all democracies get along: democratic values are, once again, contextual factors at best that might facilitate interstate cooperation but do not seem to be

the actual cause leading to bilateral cooperation. More importantly, democratic peace cannot explain the choice of a particular partner when the available pool of options only includes democracies. In other words, it cannot explain why democratic state A would privilege a partnership with democratic state B over democratic state C.

Third, the constructivist argument that shared cultural norms are expected to play an important role when discussing the trust and credibility of a potential or existing partner falls short in this respect as well.[8] This is because a common cultural identity is not a sufficient condition to forge a strategic partnership— shared commitment to liberal democratic values did not draw India and the United States together in a bilateral partnership during the Cold War. Instead, New Delhi drew itself closer to an authoritarian communist state, namely, the Soviet Union while Washington remained a close strategic ally of militarily-ruled Pakistan. Shared cultural norms might influence leaders' and policymakers' perceptions of a particular state but broad cultural principles cannot provide decision-makers with specific policy guidelines in particular cases.[9]

Irrespective of theoretical affiliation, most grand theories have so far ignored the role of SSOs in pushing for international partnerships in certain specialized areas of collaboration (notably space, nuclear and defense technologies). We demonstrate that a closer examination of the empirical record— specifically by including the motivations, timing, and mobilization of SSOs in developing specific partnerships— can shed more light on precise causal mechanisms. While these three main theoretical traditions underline some broad conditions facilitating international cooperation, we aim to provide a more comprehensive picture by identifying the conditions under which SSOs choose their international counterparts they forge partnerships with. A few

notable pieces of scholarship that have investigated the increasingly globalized nature of defense production argue that international bilateral partnerships in defense production are established for the purposes of production gains and/or to maintain the quality of armaments.[10] While these motivations are important, this literature mainly focused on the systemic effects of globalized defense production on conflict[11] and/or preserving U.S. global hegemony.[12] By espousing a state-centric approach, this literature neglects the role of SSOs on foreign policy behavior of states.

II. The Theory of SSO-driven International Partnerships

Although the majority of foreign policy issues receive the attention of the FPE[13], these executives can exclusively focus on only a handful of issue areas. This is because the FPE lacks the specialized knowledge often needed to develop policies, on the one hand, and necessary time and interest to adequately study the specialized issue areas, on the other. Owing to the aforementioned cognitive limitations, the FPE often takes recourse to strategic ideas, values and norms that act as roadmaps, which in turn helps to limit their universe of possibilities for action and reaction in the uncertain world of decision-making.[14] Nevertheless, norms, principles and worldviews cannot reasonably provide the FPE with a specific template for policymaking in every possible arena. For instance, Nehruvianism was an important ideational reference point for the Indian FPE during the Cold War, but did not offer practical recommendations on policy preferences concerning defense production or the nuclear program. As a result, at the operational level, foreign policy issues are more often managed by experts who constitute the SSOs, thereby opening up the possibility for a handful of specialized organizations to exercise substantial leverage over foreign policy decision-making.

The theory of SSO-driven international partnerships that this study proposes shares some core assumptions with the OPM paradigm, which emphasizes two main mechanisms through which certain organizations play a decisive role in the process of foreign policymaking.[15] First, as specialized agencies at the disposition of the FPE, scientific organizations possess unique expertise over particular policy fields that are technical in nature. As result, when confronted with a policy challenge, the FPE seeks the expert input of these SSOs before taking major decisions. Second, SSOs play a pivotal role at the stage of implementation of policy decisions derived by the FPE, thereby retaining substantial leverage in the specialized areas of international partnerships. While the foreign policy orientation of the FPE affects what is desirable to achieve, the SSOs spell out the actual plans of action, i.e. what is ultimately achievable based on cost-benefit analyses of existing resources of the country. In other words, the FPE ascertains the broadly defined objectives about the development of a country's nuclear or space program while the SSOs exercise their leverage in determining the specific policies since it is them that select the appropriate foreign partners to fulfil the broad objectives adopted by the FPE. Based on the aforementioned assumptions derived from OPM scholarship, we arrive at the first two of our four main hypotheses:

Hypothesis 1: *The more technical the nature of the foreign policy issue, the more the FPE defers to the SSOs that have the requisite specialized expertise in the specific policy issue in question.*

Hypothesis 2: *The broader the policy objectives ascertained by the FPE, the more the SSOs have discretion in determining the specific policies, and thereby, in selecting the foreign partners to cooperate with in order to meet those objectives.*

When given a degree of leeway by the FPE because of their own dearth of technical knowledge and skills, how do these SSOs then determine their preferred foreign partners for international cooperation? In order to answer this question, we build on scholarship on cross-organizational business alliances and sociological institutionalism. This literature argues that organizations strive for efficiency in attaining their objectives as they compete with other domestic actors for influence and resource allocation.[16] In addition, there is also a preference for international partnerships where there are structural similarities and a possibility of inter-organizational learning with fewer hurdles.[17] As a result, organizations prefer those foreign counterparts that are willing and able to share expertise as part of the international partnership, and those that are similar in their own institutional designs and internal organizational culture.[18] The literature on sociological institutionalism also notes the tendency of private and public organizations operating in the same field of expertise to develop similar structures and standard operating procedures, a phenomenon known as "institutional isomorphism."[19]

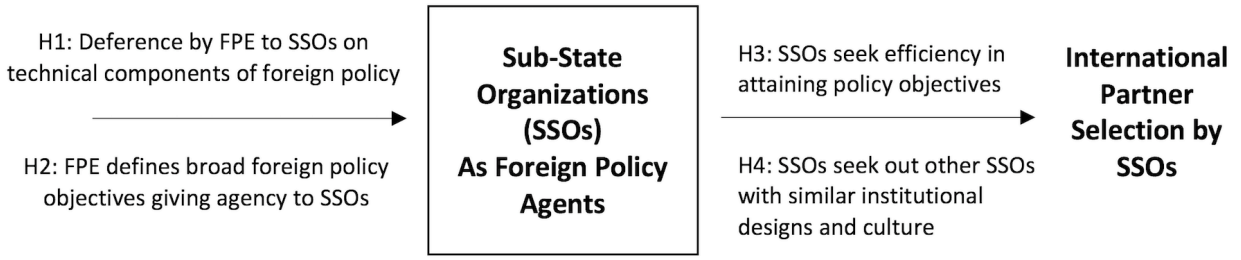
The composition of the scientific personnel within SSOs is often a mixed nature such that they comprise civil servants and civilian scientists. Moreover, these SSOs must operate in a space between civilian and military control, which poses unique logistical challenges. As a result, members of the SSOs gravitate towards forming at the international level a transnational epistemic community embedded in a tight network of similar individuals reinforced through

international conferences, cross-national dialogue and foreign visits.[20] Their knowledge of the peculiarities of their individual SSOs and the related political and logistical restraints facilitate inter-organizational exchange and learning. This is all the more important for new SSOs which seek to deliberately emulate what they perceive as comparable and successful SSOs in other national contexts in order to reduce learning costs, minimize uncertainty and quickly deliver effective and financially viable indigenous programs.[21] Therefore, similarities in the organizational culture and institutional designs (e.g. objectives, capabilities, standard operating procedures, institutional autonomy from political power, and civilian vs. military control) ensure that the SSOs can effectively attain their goals through international cooperation and joint ventures. On the basis of the above-mentioned characteristics and goals of SSOs, we derive the last two of our four main hypotheses on the drivers of international partnerships:

Hypothesis 3: *SSOs develop partnerships with international counterparts that enable them to most efficiently attain their objectives*.

Hypothesis 4: *SSOs develop partnerships with international counterparts that share similar institutional designs and internal organizational cultures.*

Figure 1 below is a visual rendering of the abovementioned causal mechanisms:



III. The Cases of India-France and India-Israel Partnerships

We conduct a plausibility probe of the aforementioned four hypotheses in the context of India's bilateral partnerships in the domains of nuclear, space and defense technologies with France and Israel. These are crucial but least-likely cases for our model since sensitive technologies that are directly related to national security are expected to be under the tight control of the FPE.[22] In this section, we determine whether SSOs played a key role in initiating and consolidating these international partnerships: we find the results to be positive, which leads us to call for further testing of the hypotheses across a wider number of cases.[23] A structured, focused comparison[24] of three different Indian SSOs— the Indian Space Research Organization (ISRO), Defence Research and Development Organization (DRDO), and the Department of Atomic Energy (DAE), involved in seeking and developing international partnerships over varying time periods is produced below. The empirical evidence has been drawn from primary and secondary sources, media reports, interviews and personal conversations with former policymakers. In the case studies, we seek answers to the following two questions:

1. Under which conditions are SSOs involved in the process of partnership selection?
2. How exactly do the preferences and procedures of SSOs affect the selection of international partnerships?

India's partnership with French Nuclear, Space and Defense SSOs

France, a West European middle power with meager economic contributions to India, did not have a clear strategic importance to the Indian FPE. Yet, France played a key role in India's nuclear and space programs during the Cold War and became a key defense partner by the 1990s, with little or no involvement of the Indian Ministry of External Affairs, i.e. the FPE. Led by an efficiency-driven agenda, certain Indian SSOs specializing in the specific issue-areas played a major role in developing and managing the bilateral partnership with France through international linkages with their French counterparts. India's Department of Atomic Energy (DAE) played a key role in establishing a privileged partnership with France through cultivating ties with the France's *Commissariat à l'Energie Atomique* (CEA) in nuclear cooperation as early as the 1950s, and the *Centre National d'Etudes Spatiales* (CNES) in space cooperation since the 1960s. It was only after 1998, as a bilateral strategic partnership developed between India and France that the FPE and executive political elites took on a larger role in both countries in managing and expanding the bilateral relationship between Paris and New Delhi. The role of SSOs in successfully forging Indo-French cooperation in the nuclear, space and defense sectors is examined below.

Although France was one of the leaders in nuclear fission research prior to the outbreak of World War II, during the postwar years, France lagged behind in atomic energy research impeded by

information censorship and wartime secrecy pledges of its scientists. Five French physicists participated in the Manhattan Project — the wartime effort led by the United States together with the United Kingdom and Canada to develop nuclear weapons— but France as a country was occupied by Nazi Germany during the War, and stayed outside the Project. Given its prewar expertise in atomic energy research, France began a nuclear program in the early postwar years and sought partners abroad. Uranium was thought to be a rare commodity at the time and alternative nuclear fuels like thorium, and strategic materials like beryllium and monazite held particular attraction to the French. India possessed those materials in ample quantities, which were also heavily sought after by the United States and the United Kingdom. London and Washington were, however, unwilling to build a processing plant in India to convert those materials into industrial items causing much consternation for newly independent India. New Delhi did not wish to be tied into a dependent position as a producer of raw materials, much like the days of British colonialism, and it too sought partners abroad that could provide the technology and infrastructure to process its own strategic materials.

In 1949, the Atomic Energy Commission of India, later DAE, was eventually able to sign a contract with French company *Societé de Produits des Terres Rares* for the construction of a monazite processing plant in India. This was followed by a string of letters between Homi Bhabha, father of India's nuclear program, and Frederic Joliot-Curie, high commissioner of the CEA that culminated in Joliot-Curie's visit to New Delhi in January 1950.[25] A special meeting was held in the house of S.S. Bhatnagar during the French physicist's visit that laid the groundwork for the first bilateral nuclear cooperation agreement between France and India in summer 1951.[26] This involved joint research in France for the development of a beryllium-

moderated low-power reactor and the construction of such a reactor in India. It was India's first nuclear agreement with a foreign country that involved reactor-related technology transfer.[27]

What was the FPE's position on France at the time? Between 1947 and 1954, the Indian Ministry of External Affairs and its French counterpart had vigorous disagreements over the fate of French colonial territories in the subcontinent leading to a diplomatic impasse. With India's independence from British rule in August 1947, the French became increasingly uneasy about the future of the five French colonial possessions— Chandernagore, Pondicherry, Mahe, Yanam and Karaikal. French concerns were heightened after the 1948 Resolution of the Indian National Congress that claimed that all foreign possessions in the Indian subcontinent were anomalies that could only be corrected when those territories united with the Indian Union. While Chandernagore voted in favor of joining the Indian Union, the referendum in Pondicherry resulted in the contrary. New Delhi claimed that the French politicians had rigged the results of the referendum and began an economic blockade of the remaining French territories. Tensions between the two foreign ministries persisted from 1948 until 1954, when an accord was finalized between the two countries confirming *de facto* transfer of the French colonial territories to the Indian Republic. The final treaty of *de jure* cession was signed in 1956.[28] In other words, while the FPE in India and France disputed over the French territorial possessions in the Indian subcontinent, the Indian and French atomic energy commissions initiated and successfully concluded their first bilateral nuclear cooperation agreement. DAE's quest for technology transfers, CEA's quest for strategic materials, and their newly launched national cooperation in reactor technologies brought the two SSOs together.[29] This was made possible because both the DAE and CEA enjoyed largely unfettered authority in the domain of atomic energy research

within their individual countries: they were not answerable to any other government agency but to the political executive elites, who occupied the helm of their individual governments. The DAE was answerable directly to the Indian Prime Minister while the CEA was overseen by the Administrator General, who was its main point of contact with the French government. During Joliot-Curie's 1950 visit to New Delhi, he met Prime Minister Jawaharlal Nehru, who was aware of possible technological collaboration between the CEA and its Indian counterpart. As Indo-French negotiations progressed, the Administrator General Raoul Dautry, who was close to Joliot-Curie, also remained supportive of Francis Perrin, Jules Guéron and others at the helm at the CEA after Joliot-Curie's dismissal in April 1950.[30]

In other words, the two SSOs in atomic energy in India and France developed bilateral linkages to facilitate collaboration in a new promising reactor technology that they believed could increase their efficiency as atomic energy bodies in their individual countries. The two SSOs established their international partnership through garnering support of the executive elites or with elites in closest contact with the executive branch of the government. On the Indian side at least, the DAE ignored the MEA (therefore the FPE), and looked beyond the colonial conflict between India and France. In the 1960s, the partnership established between the two countries in the nuclear domain also expanded in the field of space technologies, led by the same Indian institution, namely, the DAE.

Vikram Sarabhai, who succeeded as the chairman of the DAE after Homi Bhabha's 1966 death, is known as the father of India's space program. He had established the Physical Research Laboratory in 1947, which in 1960-1961, became an autonomous institution under the DAE such that the DAE channeled funds meant for the space program through the Laboratory.[31] International cooperation agreements in space technologies were managed by the DAE until the

Indian Space Research Organization (ISRO) was established in 1969. Although the first international cooperation that the DAE entered into was with National Aeronautics and Space Agency (NASA), the French space agency, CNES, played a significant role as an international partner of the Indian space program. The 1963 Nike-Apache rocket launch, which is hailed as the occasion that marked the launch of the Indian space program, was made possible through the payload provided by CNES while the entire sounding rocket system was loaned to the DAE by NASA.[32] The launch was from Thumba Equatorial Rocket Launching Station (TERLS). Over the next years, NASA's unwillingness to transfer technology in its space cooperation agreements made the DAE look elsewhere, especially to the CNES.[33] In 1964, the DAE signed an agreement with French company *Sud Aviation* for the Centaure sounding rocket systems, which were to be produced under license in India. Jacques Blamont, the founding director of CNES, was proactive in pursuing space collaboration with India. His personal friendship with Vikram Sarabhai further facilitated the cooperation.

The Indo-French space cooperation, however, witnessed the indifference and often the antipathy of the FPE in both countries. First, Indian Prime Minister Jawaharlal Nehru's friendship with Ho Chi Minh, the Communist Vietnamese leader that fought the French in the bloody 1954 battle of Dien Bien Phu, led the Quai d'Orsay (or the French FPE) to regard independent India's foreign policy with suspicion and mistrust. In the early 1960s, Nehru's support for anti-colonial struggles made the French uneasy as they fought a bloody war in Algeria. Second, the Quai d'Orsay did not see much point in expanding space cooperation with developing countries, like India, much to the disappointment of scientific personnel like Blamont.[34] Although the 1966 meeting of Indira Gandhi and Charles de Gaulle at the Elysees marked an unprecedented closeness in Indo-

French diplomacy[35] — in stark contrast to the years immediately after India's independence— this was not translated into policy with respect to trade, economic aid or foreign policy coordination. In other words, the Indian SSOs in space technologies (DAE and ISRO) driven by their quest for efficiency, and similar institutional designs and organizational cultures initiated and expanded technological partnership with their French counterpart (CNES) in an atmosphere of FPE's disinterest.

By the 1970s and 1980s, France had begun to develop a substantial defense relationship with Pakistan but preferred to keep defense sales separate from its foreign policy goals. By the early 1980s, France expanded its defense sales to India: in 1982, this led to the sale of Mirage 2000s fighter bombers to India, which were delivered by 1986. The attractiveness of French companies to India's DRDO was on similar grounds of technology transfers and reliability as in the case of space and nuclear cooperation.[36] The 1982 sale was the largest arms sale by the Socialist government of Francois Mitterrand.[37] President Mitterrand and Prime Minister Indira Gandhi's tenure witnessed a gentle upswing in the FPE's involvement although it was the outcome of SSO-driven bilateral partnership: in late 1982, during Mitterrand's visit to New Delhi it was announced that in 1983, that the French CEA would replace the United States as the fuel supplier to the Indian DAE for the U.S.-supplied Tarapur reactors. This was an arrangement made possible by the willingness of the Reagan administration to remove a thorny issue in U.S.-Indian relations since the mid-1970s through a third-party supplier. With the Tarapur deal, France received very positive media attention in India.

It was, however, not until January 1998, when President Jacques Chirac proposed a strategic partnership between India and France that the FPEs of the two countries finally began to take an interest in their bilateral relationship. When Chirac was prime minister in the mid-1970s, he had once inquired from his staff in front of the Indian Ambassador D.N. Chatterjee why France and India never considered a treaty like the 1971 Indo-Soviet Treaty of Peace, Friendship and Cooperation.[38] The Indian FPE had sent a delegation to Paris in 1972 expressing interest in an expanded strategic relationship with France but the Indian attempt did not generate any reciprocal interest from the French side. In May 1974, after India conducted its first nuclear explosion, the CEA congratulated the DAE by telegram for the successful completion of what it called a massive technological feat. Eventually, however, under pressure from the Giscard d'Estaing's government, the congratulatory telegram was retracted and the French FPE at Quai d'Orsay began renegotiating prior Indo-French nuclear cooperation agreements to make sure French supplied materials and technologies were not used in future Indian nuclear explosions. The events of 1974 demonstrate the dissonance between the FPE and sector-specific SSOs like the CEA, and how the SSOs can drive an international partnership in a very different direction from what the FPE intends.

In May 1998, when India conducted five nuclear weapons tests generating global censure, the French government of Jacques Chirac neither condemned India nor imposed economic sanctions. With Chirac's initiative of expanding Indo-French strategic partnership launched in January that year, the bilateral relationship reflected an unprecedented robustness with direct interest and initiative of the FPEs on both sides. Since then, bilateral contracts began to be signed at the intergovernmental level with adequate exchanges involving FPE and political executive elites.

This was the case with the 2008 memorandum of understanding and its follow-up agreements for the construction of six European Pressurized Reactors in Jaitapur by French state-owned company AREVA. The September 2016 agreement between India and France to buy 36 Rafale fighter jets for the Indian Air Force was also an intergovernmental agreement. In other words, while the current Indo-French bilateral relationship is characterized by the involvement of the FPE, political executive elites and appropriate SSOs, this was not at all the case in the past when mutual foreign policy differences estranged the FPEs, and antagonized the political executive elites on the two sides. The broad definition of policy goals, however, opened up the possibility for relevant SSOs in India and France to exercise their leverage and shape the specific policies. They did so through developing international partnerships based on similar organizational cultures and institutional designs with the goal to promote efficiency.

How does this case study perform with respect to the three alternative explanations, namely, shared national interests, similar political systems (electoral democracies), and matching cultural values? First, from the above case study, it can be inferred that the two countries developed their bilateral partnership despite the lack of explicitly shared national interests. Some might argue that India's policy of nonalignment was comparable to French efforts to retain its autonomy from the United States despite being a NATO ally most visible during Charles de Gaulle's presidency of the Fifth Republic. While there are parallels between the two countries' quest for autonomy from the superpowers during the Cold War, New Delhi and Paris had more foreign policy differences and conflicts of interest than countries with shared national interests are expected to have. These differences, as the above case study demonstrates, comprised French colonial territories in the Indian subcontinent in the 1950s, Indian support for liberation movements in

French colonies in the 1950s and 1960s, and indifference in the 1970s. Neither considered the other a 'strategic priority.'

Second, both India and France are electoral democracies but similar political systems did not *cause* their international partnership. Similarities in institutional designs and organizational cultures influenced the SSOs' choice of international partner, as we argue in this study, because those increased the potential for efficiency. Could it be argued that similar political systems lead to similar institutional designs in SSOs, and therefore have indirectly caused the Indo-French bilateral partnership? This counterpoint does not hold: democracies do not necessarily have similar bureaucratic structures for their SSOs. For instance, the institutional design and organizational culture of the US Atomic Energy Commission is very different from that of the CEA, which is again different from that of the UK Atomic Energy Authority despite the fact that the United States, France, and the United Kingdom are all electoral democracies. As a result, the presence of similar political systems in India and France neither hindered nor faciliated the emergence and expansion of their partnership in nuclear, space and defense sectors.

Third, can India and France be claimed to be culturally similar? One is a postcolonial state while the other is a former colonial power. As a former British colony, India has an Anglicized elite that neither speaks French nor understands "Frenchness" or *francité*. The scientific personnel and civilian bureaucrats that often constituted the Indian SSOs examined in our study were most often educated in the United Kingdom or the United States, and were culturally akin to what would be termed as 'Anglo-Saxon' in French socio-political lexicon.[39] Scholars like Cohen and others have argued that the aspiration for strategic autonomy intrinsic to Nehruvianism and

Gaullism makes India and France natural partners, especially in defense.[40] While this is an attractive argument, it is not a causal one. A broad similarity in foreign policy behavior of the two states in the international system emanating from hypothetical cultural similarities cannot explain the timing and the nature of their partnerships in nuclear, space and defense sectors. Nor can that explain French defense sales to Pakistan from the 1970s or India's explicit move towards the Soviet Union in 1971. In other words, the argument about matching cultural values cannot be substantiated. This means that something else was at play, namely, the SSOs' quest for efficiency.

India's partnership with Israel's Defense SSOs

While India recognized Israel in September 1950, it deferred the establishment of full diplomatic relations until January 1992. Because of domestic political compulsions, such as a strong Muslim minority, and close relations with Arab states, the Indian FPE deliberately chose to ignore opportunities of collaboration with Israel.[41] However, since 1992, Israel has become one of India's largest arms supplier (behind Russia and the United States), with an annual average of purchases estimated at $1 billion.[42] How did India develop such a strong defense partnership with a country that it had politically ignored for 42 years? This section takes a closer look at the role of Indian and Israeli SSOs, in first establishing modest contacts in spite of the absence of diplomatic ties, and in then in developing key partnerships in the 1990s and 2000s.

While the Indian FPE refused to publicly engage with Israel for four decades, there were various instances of Israeli assistance during India's wars of 1962, 1965 and 1971. Following an arms embargo placed by the U.S., the UK, and France, the Indian military received heavy 160 mm

mortars and ammunitions from Israeli SSOs.[43] These mortar guns proved particularly effective in mountainous terrain and were used in India's conflicts with Pakistan.[44] In times of strategic need and of international arms embargo, the provision of mortars reinforced the reputation of Israeli SSOs. The Indian military also admired the experience and expertise of the Israeli army in its different successful military campaigns and had already lobbied for more cooperation. The study of the 1967 Israeli military operations against Egypt and Syria was for instance made compulsory for officers of the Indian army.[45] As a result, in spite of limited political exchanges, there was early appreciation among India's military elites about the capacities of Israel's military industry.

In addition, the objectives, the institutional design and experiences of India's and Israel's SSOs shared important features. Since independence, India had pursued a goal of self-reliance when it came to the development of its defense industry.[46] Indian leaders advocated India's strategic autonomy in world affairs, and were conscious that this had little meaning unless India developed its own indigenous defense production.[47] Consequently, the Defence Research and Development Organization (DRDO) agency, formed in 1958, managed most of India's government-led weapons development. Likewise, the Israel government promoted the use of domestic military products and establishment of local industrial ventures. Comparable to the DRDO, Israel Aerospace Industries (IAI) was created in the 1950s to develop and manufacture military systems, included both military and civilian personnel within its organization, and was under the administrative control of the Ministry of Defense. Both the IAI and DRDO were also pressured by both governments to diversify and expand their activities following similar experiences of international isolation and struggle for self-reliance after the India-Pakistan

conflicts of 1965 and 1971 and the Israel-Arab wars of 1967 and 1971.[48] The main difference is that India's state-owned military industry was rarely able to meet the expectation of quality and quantity mandated by the Indian FPE.[49] To deal with these lacunae, India looked to the USSR from the 1970s onwards for combat aircrafts, warships, tanks and missile systems. By the late 1980s, over 80% of India's weapons platforms were of Soviet origin.[50]

The strong opposition by the FPE to any rapprochement with Israel until the 1990s limited opportunities for Indian SSOs to build on institutional parallels with Israel's military industries. While the propitious conditions for cooperation suggested through the above-mentioned H3 and H4 seemed to be present, the opening for a stronger role played by SSOs in the decision-making process were not met. As a result, the normalization of diplomatic ties in January 1992 should have then been an opportunity for closer cooperation between Indian and Israeli SSOs as the main political obstacles were seemingly removed. In addition, the dismemberment of the Soviet military industry into multiple countries in 1991, and the end of friendship prices (notably through the possibility of rupee trade), created an urgent need for India to find alternative sources of defense procurement.

While political ties improved with Israel in 1992, India's FPE first attempted to procure arms from former Communist states of Eastern Europe, notably the Czech Republic, Slovakia, Ukraine, and Yugoslavia. This was because Western Europe and the United States were prohibitively expensive and skeptical when it came to technology transfers.[51] India also maintained important defense ties with Russia, which demonstrated it willingness to transfer sensitive technologies to India through arms deals.[52] During this time, India began the

manufacturing of the BrahMos missiles under a 50/50 joint partnership between the DRDO and Russia's military industrial consortium NPOM. [53]

In the 1990s, Indian policymakers still prioritized domestic politics and their goal to maintain positive relations with Arab states in the Middle-East, which explained the continuing absence of defense ties with Israel. Owing to perceived domestic and regional opposition to a rapprochement with Israel in the early 1990s, most defense exchanges and visits were not disclosed.[54] In addition, most visits by Indian delegations were either followed or preceded by a compensating visit to an Arab capital.[55] It also took five years of lobbying by the Indian military establishment to convince India's FPE, specifically India's Ministry of External Affairs, of the need to have a defense attaché permanently based in Israel.[56] As a result, cooperation between the Indian and Israeli SSOs remained limited. Israel-based companies Elbit and IAI competed to secure a contract to upgrade India's aging 200 MIG-21 aircrafts but lost out to Russia's Mikoyan Dcsign and Dcvclopmcnt Company.[57] It was only in 1995, after three years of complex negotiations, that India purchased Unmanned Aerial Vehicles (UAVs) from IAI.[58]

Another key reason for limited cooperation was the initial opposition at the level of Indian SSOs vis-à-vis cooperation with Israel. The DRDO, which was still in charge of most of India's national defense projects, initially had an organizational interest in limiting purchases and cooperation with the Israeli industry. The DRDO was in fact in direct competition with Israeli SSOs like IAI and Rafael over projects like the upgrade of MIGs, the development of various missile systems, satellite technologies, and even the production of UAVs.[59] Moreover, the DRDO was also wary of cooperation with Israel because of technology transfer concerns. Export

control regulations like the Missile Technology Control Regime (MTCR), of which India was not a member until June 2016, prevented India from cooperating with Israel on ballistic missile technologies. Some of the Israeli technologies were also co-produced with the United States, and Israel needed prior approval from Washington in order to enter into negotiations with third parties on technological collaboration.[60]

By the late 1990s, two key factors affected a change in DRDO's perception of Israeli SSOs. First, there was the rise to power of the Hindu nationalist Bharatiya Janata Party (BJP) in 1998, which had traditionally promoted better relations with Israel even before the establishment of diplomatic relations.[61] This led to a change in the composition of the FPE which was less concerned about domestic and regional criticisms of a pro-Israel tilt.[62] Second, the 1999 Kargil conflict created an additional opportunity structure for change. The Kargil war with Pakistan led to a major debate over India's defense and intelligence capabilities since New Delhi could not anticipate the infiltration by Pakistani militants that precipitated the conflict.[63] Pakistan's phased infiltration in the forward outposts in inhospitable and elevated terrains revealed the Indian's military unpreparedness in both spotting and preventing cross-border incursions in certain areas. It is in this enabling context of defense reforms that India's FPE deferred to defense-related SSOs to identify ideal foreign partners to urgently tackle the crying gaps in New Delhi's defense capabilities.

Consequently, H1 seems to be confirmed, as India's FPE turned to its defense SSOs, i.e. DRDO, and gave them the equivalent of a *carte blanche* when it came to selecting international partners. This pattern of limited political involvement and oversight of DRDO and defense acquisition and

procurement procedures has also been established by other studies.[64] However, out of various options, why did Israeli SSOs become the ideal partners for India's DRDO? During this period, it is also important to note that the DRDO moved from perceiving Israel's defense organizations as competitors to engaging them as co-production partners. This perceptual shift transpired in the late 1990s. Given the environment of technology denial, which prohibited technology sharing by West European and U.S. partners, especially in the aftermath of the sanctions linked to the May 1998 nuclear tests, the Indian defense scientific community looked for new alternatives. Israel, which did not condemn India's nuclear tests, resembled an attractive foreign partner of India's DRDO.

The tenure of Dr. A. P. J. Abdul Kalam as Scientific Advisor to the Defense Minister and Secretary of the DRDO marked a change in the organizational culture of the institution, which initiated a regular dialogue with Israeli defense organizations such as the Indo–Israeli Management Committee (I2MC).[65] This partnership involved a mandate to look for joint projects relating to sensors and weapons systems. The long-term output of these strategic dialogues was the induction of the Green Pine multi-functional radar and the development of air defense missile systems, including the Indian Navy's Long Range Surface-to-Air Missile and the IAF's Medium Range SAM.[66] This is an interesting development since Israeli industries and the DRDO previously competed on similar projects in the 1990s.

These joint ventures between the DRDO and Israeli defense organizations like IAI were also compatible with the broad objectives of the FPE related to self-sufficiency and strategic autonomy in the defense sector. As mentioned previously, the experiences of the Indian and

Israel military industrial ecosystems, and especially of SSOs like DRDO and IAI, shared many similarities. Because of its comparable experience and its successes, an SSOs like IAI was perceived as a key potential facilitator to reach self-sustaining indigenous defense capabilities for India. In addition, IAI demonstrated its willingness to transfer technologies to India, and to engage with the DRDO in co-production and in conducting joint research and development in high-technology military equipment.[67]

Lessons from the Kargil conflict further encouraged the Indian military establishment to engage Israeli defense industries to obtain surveillance equipment such as UAVs, cross-border sensors, and Airborne Early Warning Systems— three key areas where Israel's defense companies had a competitive edge in the international market.[68] Israel's quick response to India's request for military assistance also increased its credibility as a reliable arms supplier, especially during a crisis and during the period of an international embargo.[69] Furthermore, in certain niche high-technology fields such as surveillance equipment and ballistic missile defense systems, where India had failed to build robust indigenous capabilities, Israeli industries offered important equipment and expertise, like the Barak-I AMD systems India bought in 2001.[70] Israeli SSOs also proved to be an indirect way to access U.S. defense technologies (such as sub-elements of the Arrow system like the Green Pine Radar).[71] These also provided qualitative upgrades to some of India's aging Soviet equipment from the Cold War era.[72]

On the Israeli side, the quest for new markets to sustain the financial viability of its own defense industry was a major driving factor. It encouraged Israeli SSOs to establish joint collaborative ventures with Indian firms and public-sector undertakings that were open to joint production and

manufacturing partnerships with foreign counterparts.[73] The Israeli government also pushed for the commercialization of dual-use defense technologies by funding the joint ventures. Bilateral military-technical cooperation with Israel's state-owned defense firms was growingly embraced by Indian research-defense organizations like the DRDO but also the public-sector undertaking, Bharat Dynamics Ltd., and even private companies like Reliance Defense (a subsidiary of Reliance Infrastructure Ltd.) and Kalyani Strategic Systems Limited, as enabling India's quest for self-sufficiency.

Consequently, defense cooperation with Israel was perceived positively by politicians across the spectrum as a way to boost India's indigenous defense industry.[74] Owing to the specialized and technical nature of this international collaboration, political executives deferred to the defense bureaucrats for the negotiations.[75] In 2004, the electoral defeat of the BJP and the return to power of the Congress Party, which had been reluctant to develop strong military ties with Israel, led to another change in the composition of India's FPE. While expressing strong anti-Israeli rhetoric during the electoral campaign,[76] the Congress Party became prudent in its action when in power in 2004-2014. The Congress party declared it would not review its diplomatic relations with Israel which were thereby framed as a 'strategic imperative'.[77] Finally, the increase in expenditures in very specific high-technological sectors such as missile defense under the Congress government confirmed that the FPE had completely deferred to Indian SSOs in the context of this partnership.

This study of SSOs, which concentrates on the micro-level dynamics of partnership selection, thereby, provides a more complete analysis of the emergence, evolution and consolidation of the

India-Israel defense partnership. At an opportune moment at the deference of the FPE in the identification of partnership possibilities to achieve security priorities, Indian SSOs encouraged long-term cooperation with Israeli counterparts. The alternative explanations (shared security interests, institutional similarities, cultural likeness) emphasized above suggest enabling conditions but are not sufficient to explain *why* and *when* India engaged with Israel. While there were security shocks, such as the May 1998 nuclear tests and the 1999 Kargil conflict, which pushed the FPE to reform India's defense development and procurement programs, the selection of Israeli SSOs instead of other suppliers, cannot be understood without a discussion of the sub-state level organizational dynamics of Indian SSOs.

Conclusions and Implications

The examined cases underline the hitherto under-explored role of SSOs in shaping bilateral partnerships in specialized domains, often going beyond their original mandate of being subservient to the FPE. The existing IR literature that emphasizes shared national interests, institutional similarities and matching cultural values, has not yet accounted for bilateral partnerships where none of the above three factors are predominant. In other words, scholars must rethink how states select their foreign partners in specialized fields, especially in cases where traditional demand-supply theories are lacking like in nuclear, space and defense technologies. Building on insights from the OPM scholarship, our study suggests that more complex linkages exist between the broad policy objectives of the FPE, the role of SSOs, and the emergence and maturation of international partnerships in specialized domains. We find that the micro-motivations of the SSOs behind partnership selection are instrumental in understanding

when and how states cooperate in specific fields in the absence of strong political links and explicit FPE initiatives.

The India-France case demonstrates that the broad definition of "national development" by the Indian FPE created the scope for the exercise of leverage by the DAE (H2), which had the requisite specialized knowledge on reactor technologies for the production of atomic energy (H1). In the nuclear domain, the two respective SSOs, namely, the CEA and the DAE searched for international partners at a time when postwar information censorship made cooperation difficult, and the supposed scarcity of uranium made strategic materials like beryllium and thorium attractive from the point of view of efficiency (H3). In the field of space cooperation, India's aim to develop indigenous expertise could be guaranteed only through international partners that offered technology transfers, thus making the CNES attractive to DAE/ISRO (H3). The operational autonomy guaranteed to the DAE in India and the CEA in France in the nuclear domain, and the DAE/ISRO in India and the CNES in France in the space domain, facilitated their international partnerships, which then benefited from their similar institutional designs and organizational cultures (H4).

The case of India-Israel defense cooperation provides a more complex story and partially support our theoretical model. Our approach demonstrates how some Indian SSOs gradually established dialogue and joint cooperation with Israeli state-owned enterprises in spite of limited involvement, if not direct opposition, of the FPE. It is only in the late 1990s that the FPE seemed to openly support a rapprochement with Israel. The broad objectives of self-sufficiency and strategic autonomy, and the need to reform India's defense capacities, led the FPE to defer to

India's defense establishment to identify possible joint ventures with Israeli defense companies, thereby confirming the expectations of H2. As witnessed by the difficulties from the Congress government in reducing defense ties with Israel in the 2000s, India's FPE also increasingly relied on specialized SSOs for the identification and selection of international partnerships (H1). The DRDO's need to deliver high-quality defense platforms such as the long-range medium surface-to-air missiles systems (H3), and comparable institutional experiences as those of some of Israel's state-owned defense firms like IAI, facilitated partnerships between Indian and Israeli SSOs (H4).

It must be noted that while the actions of SSOs create a parallel track of communication between the two states in question, these might not necessarily reorient foreign policy directions in the short run.[78] However, if and when previous foreign policy differences are resolved between the two states, the mutually beneficial sectors become a prominent component of their bilateral relations. This is the case for both Indo-French as well as Indo-Israeli relations. Will a similar logic operate when there are conflicting interests between the SSOs of two partnering countries? When there are already foreign policy differences between two states' FPE, further differences between their SSOs would perhaps only reinforce their mutual estrangement. Similarly, when there is affinity in foreign policy interests between two states' FPE but conflict between their SSOs, the states would possibly need additional negotiations at the sub-state level to iron out differences despite a positive relationship between the FPE on both sides.

One might argue that by pursuing partnerships with middle powers like France and Israel, India was undertaking the realist pursuit of self-interest because by obtaining technologies and goods

from these middle powers, India did not have to become an appendage to the great powers while at the same time getting what it needed for its nuclear, space and defense programs. This is an attractive yet problematic argument. This is because it assumes the existence of a coherent governmental doctrine that dismisses any dissonance between the Indian FPE and SSOs involved, as if the international behavior of SSOs is the same as acts of the Indian state. Our study's very premise is to study this dissonance and the conditions under which the SSOs are best able to exercise leverage in forming international partnerships, where the FPE has no clear interest or has limited technical knowledge and skills to figure out how to actually achieve its broad policy objectives. Since we focus on this dissonance, we are able to underline the efficiency-oriented behavior of the SSOs as not automatically paired with the realist pursuit of self-interest by the 'black box' called the state.[79] A growing number of studies have argued that insights from the study of Indian foreign policy can provide important empirical and theoretical insights for the broader discipline of foreign policy analysis.[80] This study is a contribution to that intellectual endeavor.

In this study, we demonstrated that international partnerships do not always emerge out of well-defined strategic objectives but are often the result of decisions made at the sub-state level. Further research is necessary to illuminate many of the complex dynamics involving SSOs in foreign policymaking. These could constitute: (a) examinations of the specific impact of intra-SSO and SSO-FPE competition over the choice of international partners to attain policy objectives; (b) analyses of other niche technological domains like cybersecurity, aid and development, where SSOs have led the way for bilateral partnerships; and (c) investigations into the impact of long-term foreign policy objectives (partnerships, doctrines and nuclear and space

programs) on early situational decisions of SSOs. It is our hope that this study will generate the much-needed discussion of the role of SSOs in foreign policies of states.

[1] On this subject see: David Engerman. *The Price of Aid: The Economic Cold War in India* (Cambridge, Harvard University Press, 2018). See also footnote 78.
[2] We distinguish SSOs from decentralized, sub-state political units like regional or federal entities and municipalities, which also can influence (or even bypass) state-level foreign policy-making but through different mechanisms. See Francisco Aldecoa, and Micheal Keating, *Paradiplomacy in Action: The Foreign Relations of Subnational Governments* (London: Frank Cass, 1999); Rodrigo Tavares, *Paradiplomacy: Cities and States as Global Players* (New York: Oxford University Press, 2016).
[3] Graham Allison, *Essence of Decision: Explaining the Cuban Missile Crisis* (Boston: Little, Brown, 1971).
[4] A notable exception is a preliminary study from Graham Allison and Frederic Morris looking at the organizational determinants of weapons procurement. See Graham T. Allison and Frederic A. Morris, "Armaments and Arms Control: Exploring the Determinants of Military Weapons", *Daedalus* 104, 3 (1975): pp. 99-129.
[5] Tom Dyson, "Balancing Threat, not Capabilities: European Defence Cooperation as Reformed Bandwagoning." *Contemporary Security Policy* 34, 2 (2013): pp. 387-391; Lorenzo Cladi and Andrea Locatelli, "Bandwagoning, Not Balancing: Why Europe Confounds Realism." *Contemporary Security Policy* 33, 2 (2013): 264-288; Douglas M. Gibler and Scott Wolford, "Alliances, Then Democracy: An Examination of the Relationship Between Regime Type and Alliance Formation." *Journal of Conflict Resolution* 50, 1 (2006): pp. 129-153; Joseph M. Grieco, "The Maastricht Treaty, Economic and Monetary Union and the neo-realist research programme." *Review of International Studies* 21, 1 (1995), pp. 21-40; Stephen M. Walt; *The Origins of Alliances* (Ithaca: Cornell University Press, 1987).
[6] Brian Lai and Dan Reiter, "Democracy, Political Similarity, and International Alliances, 1816-1992." *Journal of Conflict Resolution* 44, 2 (2000): pp. 203-227.; Brett Ashley Leeds, "Domestic Political Institutions, Credible Commitments and International Cooperation." *American Journal of Political Science* 43, 4 (1999): pp. 979-1002.
[7] Walt, Ibid.
[8] Jeffrey Legro, "Culture and Preferences in the International Cooperation Two-Step." *American Political Science Review* 90, 1 (1996): pp. 118-137. Jarrod Hayes, *Constructing National Security: U.S. Relations with India and China* (Cambridge: Cambridge University Press, 2013).
[9] Judith Goldstein and Robert Keohane (eds.), I*deas and Foreign Policy: Beliefs, Institutions and Political Change* (Ithaca: Cornell University Press, 1993); Jeffrey Checkel, *Ideas and International Political Change: Soviet/Russian Behavior and the End of the Cold War* (Yale University Press, 1997).
[10] Brooks for instance argues that, within the defense field, forms of internationalization such as licensed coproduction, coproduction programs, and co-development program are still mainly driven by the political decisions of the FPE, see Stephen G. Brooks, *Producing Security: Multinational Corporations, Globalization, and the Changing Calculus of Conflict* (Princeton: Princeton University Press, 2005)., pp. 82-83.
[11] Ibid.

[12] Jonathan Caverley, "United States Hegemony and the New Economics of Defense," *Security Studies* 16, no. 4 (October-November 2007).
[13] Steven E. Lobell, Jeffrey Taliaferro and Norrin M. Ripsman (eds.), *Neoclassical Realism, the State, and Foreign Policy* (Cambridge: Cambridge University Press, 2009).
[14] For an example in the Indian context, see Vipin Narang and Paul Staniland, "Institutions and Worldviews in Indian Foreign Security Policy," *India Review* 11, no. 2 (2012): 76-94.
[15] Allison, Ibid; Morton Halperin, *Bureaucratic Politics and Foreign Policy* (Washington, DC: Brookings Institution, 1974).
[16] Eyre, Dana P., and Marc C. Suchman. 1996. "Status, Norms, and the Proliferation of Conventional Weapons." In *The Culture of National Security: Norms and Identity in World Politics*, edited by Peter J. Katzenstein, 186–215. New York, NY: Columbia University Press; Morton Halperin and Priscilla Clapp, *Bureaucratic Politics and Foreign Policy, 2nd edition* (Washington, DC: Brookings Institution, 2006).

[17] Nanette Levinson and Minoru Asahi, "Cross-National Alliances and Interorganizational Learning", *Organizational Dynamics*, 24, No. 2 (1995): 50 -64.
[18] Legro, Ibid.
[19] Paul J. DiMaggio and Walter W. Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields", *American Sociological Review* 48, No 2 (1983): p. 149.
[20] Peter M. Haas, "Introduction: Epistemic Communities and International Policy Coordination", *International Organization* 46, No. 1 (1992): 1-35; David Kinsella and Alexander Montgomery, "Arms Supply and Proliferation Networks," in *Oxford University Press Handbook on Political Networks,* edited by Jennifer Nicoll Victor, Alexander H. Montgomery, and Mark Lubell (London: Oxford University Press, 2017).
[21] Jens Beckert, "Institutional Isomorphism Revisited: Convergence and Divergence in Institutional Change", *Sociological Theory* 28, No 2 (2010): 150–166.
[22] Alexander George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge: MIT Press, 2005), p.121.
[23] Jack S. Levy, "Case Studies: Types, Designs, and Logics of Inference", *Conflict Management and Peace Science* 25 (2008): 1-18.
[24] George and Bennett, op. cit., pp. 67-73.
[25] In 1949, Homi Bhabha was the chairman of the Indian Atomic Energy Commission, which in 1954 became the Department of Atomic Energy with Bhabha was its Secretary, and answerable directly to the Prime Minister.
[26] For an historical analysis of this agreement see Jayita Sarkar. "'Wean Them Away from French Tutelage': Franco-Indian Nuclear Relations and Anglo-American Anxieties During the Early Cold War, 1948–1952." *Cold War History* 15, no. 3 (2015): 375-94. See also: Jayita Sarkar. "Compatriotes de l'atome: La cooperation nucleaire franco-indiene, 1950-1976." *Critique Internationale* 63, no. April-June (2014): 131-49; Jayita Sarkar. "From the Peaceful Atom to the Peaceful Explosion: Indo-French Nuclear Relations During the Cold War, 1950-1974." *Nuclear Proliferation International History Project Working Paper Series* 3(2013).
[27] This beryllium-moderated reactor technology was untested new technology. The joint theoretical studies by French and Indian teams realized the feasibility challenges of this technology, and the project was abandoned in ten years. Bertrand Goldschmidt, "Les problèmes nucléaires indiens," *Politique étrangere* 47 (1982): 619.
[28] See Balveer Arora. "Les établissements français de l'Inde," *Revue française de science politique* 18 (1968): 362-375.
[29] The early Cold War was characterized by severe information censorship and controls over strategic materials imposed by the United States with the collaboration of the United Kingdom. International collaborations and transnational linkages across state borders, therefore, held promise for the DAE and the CEA, with respect to the development and expansion of their nuclear program.
[30] See for instance, Letter from Raoul Dautry, Administrator-General of the CEA to René Lescop, Secretary-General of the CEA, 14 September 1950, 307 AP 203, June-December 1950, Papers of Raoul Dautry, French National Archives, Paris (hereafter FNA). Secret envelope from Jules Guéron to Raoul Dautry containing resumé of discussions with Homi J. Bhabha in London, 2 July 1950, 307 AP 225, 1950–1, Papers of Raoul Dautry, FNA.

[31] Gopal Raj. *Reach for the Stars: The Evolution of India's Rocket Programme* (New Delhi: Viking, 2000), p. 7.
[32] Ashok Maharaj. "Space for Development: U.S.-Indian Space Relations, 1955-1976." PhD dissertation, Georgia Institute of Technology, 2011, p.71.
[33] Ibid, p. 81.
[34] Jacques Blamont. *L'action soeur du reve: Souvenirs du voyage* (Paris: Editions Edite, 2011), p. 207.
[35] On the 1966 de Gaulle-Gandhi meeting, see Jayita Sarkar. "The Making of a Nonaligned Nuclear Power: India's Proliferation Drift, 1964-8," *The International History Review* 37, no. 5 (2015): 933-50.
[36] India's defense procurement strategy often follows the rationale of favoring reliability of suppliers over the quality of supply and the attractiveness of the deal. Stephen Cohen and Sunil Dasgupta, *Arming Without Aiming: India's Military Modernization* (Washington, DC: Brookings, 2010), p. 149.
[37] Paul Lewis. "India chooses French jet over Soviet plane," *The New York Times*, 18 April 1982.
[38] Top Secret Letter from D.N. Chatterjee to P.N. Dhar, 12 May 1975, PN Haksar Files, IIIrd installment, Correspondence with Dwarka Nath Chatterjee, 1970-1980, Nehru Memorial and Museum Library, New Delhi.
[39] The two countries are dissimilar in terms of language (multi-lingual India, mono-lingual France), religion and race. Moreover, while both countries are officially secular, the exact character of Indian secularism and French *laïcité* are starkly different: India encourages different religious expressions in the public space (for example, the

turban, the burqa, the niqab, the Catholic cross, and the sacred thread) while France expunges religious expressions from the public space (for example, the ban on wearing crosses in public schools, and bans on burqas and burkinis).
[40] Stephen P. Cohen, "India Rising," (Washington, D.C.: Brookings Institution), 2000.; Stephen P. Cohen, *India : Emerging Power*, 1st softcover ed. (Washington, D.C.: Brookings Institution Press, 2002). See also: John M. Owen IV, "Transnational Liberalism and U.S. Primacy," in Michael E. Brown et al, *Primacy and Its Discontents : American Power and International Stability*, International Security Readers (Cambridge, Mass.: MIT Press, 2008)., p. 238.
[41] For more on the political history of the relationship, see Nicolas Blarel, *The Evolution of India's Israel Policy: Continuity, Change and Compromise since 1922* (New Delhi: Oxford University Press, 2014); P.R. Kumaraswamy, *India's Israel Policy* (New York: Columbia University Press, 2010).
[42] India has also become Israel's largest arms export market over the last decade. See Ferry Biedermann, "First ever Indian PM visit to Israel amid booming defense ties", CNBC.com June 30, 2017, available at: http://www.cnbc.com/2017/06/30/first-ever-indian-pm-visit-to-israel-amid-booming-defense-ties.html (Last accessed July 11, 2017).
[43] Neville Maxwell, *India's China War* (New York, Random House, 1970), p. 385; Kumaraswamy, op. cit., pp. 199, 202, 215.
[44] N. A. K. Browne, "A Perspective on India–Israel Defence and Security Ties", *Strategic Analysis*, 41:4 (2017): 325-335.
[45] Mahendra Ved, 'Slow and Steady: Growing Security Ties with Israel', *Times of India*, March 30, 1998.
[46] Timothy D. Hoyt, *Military Industry and Regional Defense Policy: India, Iraq and Israel* (London: Routledge, 2006), pp. 61-6.
[47] Consequently, Defence production has traditionally been the purview of several large state-owned enterprises, including 8 Defence Public Sector Undertakings (DPSUs) and 41 Ordnance Factories (OFs). See Richard Bitzinger, 'India's Defence Industrial Base: Decay and Reform' in *The Oxford Handbook of India's National Security* edited by Sumit Ganguly, Nicolas Blarel and Manjeet S. Pardesi (New Delhi: Oxford University Press, 2018); Stephen P. Cohen and Dasgupta, op. cit., p. 146.
[48] For more on Israel's defense industry, see Hoyt, op. cit., pp. 67-114.
[49] Manjeet S. Pardesi and Ron Matthews, 'India's Tortuous Road to Defence-Industrial Self-Reliance,' *Defense & Security Analysis* 23:4, 2007.
[50] Cohen and Dasgupta, op. cit., p. 20.
[51] "The Indian Defence Industry Looks Abroad", *Whitehall Papers* 31:1 (1995): 50-61.
[52] Vivek Raghuvanshi, 'Russia Assures India on Joint Spares Flow', *Defense News*, 13 June 1994.
[53] Chandra Rekha, *India-Russia Post-Cold War Relations: A New Epoch of Cooperation* (New York: Routledge, 2017), p. 43.
[54] Indian diplomats were initially reluctant to acknowledge the visits of military officials in Israel, see P.R. Kumaraswamy, "India and Israel: Evolving Strategic Partnership"*, BESA Security and Policy Studies* 4 (1998).
[55] the Indian Army Chief of Staff, General V.P. Malik was sent to goodwill visits Syria and Egypt in 1998 after his very symbolical first visit to Tel Aviv in March 1998.
[56] See Browne, op. cit. N.A.K Browne was the first defense attaché based at the Indian Embassy in Israel.
[57] Blarel, op. cit., p. 280.
[58] "The Indian Defence Industry Looks Abroad", *Whitehall Papers*, 31:1, 50-61
[59] Hoyt, op. cit., pp. 43-6.
[60] The US had previously criticized and even blocked the Israeli transfer of Lavi, patriot missile, and Phalcon technologies to China. These precedents served as cautionary tales for further joint ventures between India and Israel. Duncan Clarke, "Israel's Unauthorized Arms Transfers," *Foreign Policy*, no. 99 (1995): pp. 89-109; P.R. Kumaraswamy, 'Israel, China and the United States: The Patriot Controversy,' *Israel Affairs* 3:2 (1996); Yitzhak Shichor, 'Israel's Military Transfers to China and Taiwan,' *Survival* 40:1 (1998).
[61] Balraj Madhok, 'India's foreign policy: the Jana Sangh view', in Verinder Grover, *International Relations and Foreign Policy of India* (New Delhi: Deep and Deep Publications, 1992), p. 164; L. K. Advani, 'Should Indo-Israeli Ties be Strengthened? A Defence Tie-Up will Benefit India,' *Indian Express*, May 24, 1993.
[62] Christophe Jaffrelot, "Inde-Israël : le nouvel élément-clé de l'axe du Bien?", *Critique Internationale* 4:21 (2003): 24-32.
[63] *From surprise to reckoning: the Kargil Review Committee report* (New Delhi: Sage: 2000).

[64] Vipin Narang and Paul Staniland, 'Democratic Accountability and Foreign Security Policy: Theory and Evidence from India', *Security Studies* (2018). Available at: http://www.tandfonline.com/doi/abs/10.1080/09636412.2017.1416818 [accessed on 26/12/2017].
[65] Browne, op. cit.
[66] 'DRDO to get Israel help for missiles,' *Indian Express*, 13 July 2007.
[67] Tamir Eshel, 'Indo-Israel Relations: Make With India', *Indian Defence Review* 32:3 (2017)
[68] By 1999, India's indigenous efforts to build UAVs for reconnaissance missions had yielded poor results. The Lakshya and Nishant UAV models were either produced in limited models and or were still undergoing flight tests. Production delays and technical problems led the Indian army to consider the more sophisticated and higher range Israeli Searcher and Henron drones as an alternative to compensate for the delays.
[69] Y. S. Shapir, 'Israel's Arms Sales to India', *Strategic Assessment*, 12:3 (2009)

[70] Shishir Gupta, 'India to Buy Missile Defense Systems from Israel,' *The Hindustan Times*, 11 February 2001; Rajat Pandit, 'Navy's critical requirement for Israeli Barak missiles stalled due to CBI case,' *Times of India*, 27 August 2012.
[71] Ninan koshy, 'US plays Matchmaker to India, Israel', *The Asia Times*, 10 june 2003.
[72] S. Samuel C. Rajiv, 'India, Israel and the Defence Taboo', *IDSA comment*, 30 September 2010. Available at: https://idsa.in/idsacomments/IndiaIsraelandtheDefenceTaboo_sscrajiv_300910 [accessed on 26/12/2017].
[73] Browne, op. cit.
[74] The need for greater defense industrial self-reliance was notably emphasized in Sunil Khilnani, Rajiv Kumar, Pratap Bhanu Mehta, Lt. Gen. (Retd.) Prakash Menon, Nandan Nilekani, Srinath Raghavan, Shyam Saran, Siddharth Varadarajan, *Non-Alignment 2.0: A Foreign and Stratgic Policy For India in The Twenty-First Century* (New Delhi: Centre For Policy Research, 2012), p. 62.
[75] Interestingly, some of the contracts that Israel has won have not been contested processes. There was for instance no tendering process for the LR-SAM joint venture between IAI and the DRDO.
[76] "India should initiate action against Israel: Antony", *The Hindu*, 27 April 2004
[77] "Israel ties won't affect Palestine ties: Natwar," *Indian Express*, 12 July 2004
[78] A comparable but dissimilar case can be perceived in the role of the Indian Planning Commission that drove economic cooperation between New Delhi and Moscow during the Cold War while the Indian Ministry of Finance sought cooperation with Washington, thereby both diversifying nonaligned India's suppliers of development aid as well as raising challenges for its Ministry of External Affairs. see David Engerman. *The Price of Aid: The Economic Cold War in India* (Cambridge, Harvard University Press, 2018).
[79] For instance, Vipin Narang highlighted in the context of nuclear posturing and missile development the dissonance between decision-makers and DRDO statements. See: Vipin Narang, "Indian Nuclear Posture: Confusing Signals from DRDO", *IDSA Comment*, September 26, 2011. Available at: https://idsa.in/idsacomments/IndianNuclearPostureConfusingSignalsfromDRDO_vnarang_260911 [accessed on 26/12/2017]
[80] Sumit Ganguly and Manjeet S. Pardesi, "Foreign Policy Analysis in India" in *FPA outside North America* edited by Klaus Brummer and Valerie Hudson (Boulder: Lynne Rienner, 2015); Mischa Hansel, Raphaëlle Khan, Melissa Levaillant, *Theorizing Indian Foreign Policy* (London: Routledge, 2017).