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ABHIJNAN REJ

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ABOUT THE AUTHOR

Abhijnan Rej is a Fellow at the Observer Research Foundation, New Delhi. He works on subjects related to geoeconomics, Indian foreign policy, and applied game theory. He obtained his Bachelor's and Master's degrees in mathematics from the University of Connecticut, and carried out his PhD research in mathematical physics at the Max Planck Institute for Mathematics, Bonn. Abhijnan's professional experience since has spanned the academe, the corporate world, and public policy. His latest research, “A Geoeconomic Strategy for the New Normal,” was published as an ORF Occasional Paper in February 2016.

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ABSTRACT

This paper presents a typology for three groups of intra-state actors in Pakistan. These three groups—termed “complicit,” “culpable,” and “collateral”—have their own, different stakes in promoting transnational extremism. This typology suggests that Pakistan cannot be considered a unitary rational state. Furthermore, the paper analyses the inter- and intra-group dynamics within the theoretical framework of evolutionary game theory. Policy recommendations are made in this paper through the typology viewed within the evolutionary games framework.

1. INTRODUCTION

Two days into 2016, a group of heavily armed and apparently well-trained extremists stormed an Indian Air Force (IAF) base in Pathankot, a small garrison town in the Indian state of Punjab. The Pathankot airbase houses the Number 3 Squadron of the IAF which participated in the 1965 and 1971 wars with Pakistan. The group of extremists (reports could not agree if there were four or six) engaged in what is often termed a *fedayeen* attack: a sub-conventional warfare tactic in which the attackers drag the operation for as long as they can – garnering media attention along the way – and cause significant damage to the targets, but do not plan on leaving the site of the operation alive. In the Pathankot attack, the targets no doubt were vital air assets, including MiG-21 Bison fighter jets¹ and attack helicopters stationed

there. While none of these assets were destroyed, the special security agencies responding to the attack suffered a disproportionate number of casualties.

A section of analysts have ascribed the attack to the Pakistan-based Jaish-e-Mohammad (JeM) outfit, led by Masood Azhar, one of the extremists swapped for Indian hostages in the December 1999 hijacking of an Air India flight, and believed to be a state proxy.² It is widely suspected that Azhar – since his release from Indian prisons in 1999 – has been sheltered by Pakistan's powerful Directorate of Inter-Services Intelligence (ISI). What is striking about the Pathankot attack is its timing. A week before the attack, Indian Prime Minister Narendra Modi visited his Pakistani counterpart, Nawaz Sharif, ostensibly as a social courtesy. The Modi-Sharif meeting was heavy on optics, and was widely interpreted as signalling a renewed commitment on both sides to improving India-Pakistan relations.

The juxtaposition of the Modi-Sharif bonhomie and the Pathankot attacks – all in a span of 10 days – has led analysts in New Delhi to interpret Pakistan's behaviour as a “Good Cop” (Islamabad)/“Bad Cop” (Rawalpindi) routine. Such thinking implicitly assumes that Pakistan is a unitary rational state. This paper revisits this core assumption through a typology of intra-state actors in Pakistan, and their dynamics following models of evolutionary games. It describes three groups of state actors and proxies which have traditionally supported violent extremism, mostly, but not always, directed at India. The first group – the “complicit” one – comprises serving and retired ISI officers charged with promoting Pakistan's India and Afghanistan policies, and their proxies. Culturally, at least in its lower rungs, this group is similar to that of the proxies themselves. The second group – the “culpable” one – comprises Pakistan's military and civilian leaders who view proxies as legitimate state instruments, while supporting broad-based liberalisation at home. The third and final group is the “collateral” group, comprising narco-traffickers and state-backed narco-terrorists who realise that Pakistan's geostrategic vantage is compounded by its location in the narcotics 'Golden Triangle'. It also consists of proliferators of weapons of mass destruction (WMD) who are driven by a financial profit motive. There

are considerable overlaps between these groups in terms of membership and an individual may belong to two or more groups. Membership itself evolves with time.

This paper approaches the interaction within and between these groups from the theoretical framework of evolutionary game theory – a variant of classical game theory where interaction between players determines fitness, and where rationality assumptions are weakened, and taken to be 'bounded'. A specific sub-theory in this field is evolutionary set theory which studies games in set-structured populations. The framework of this sub-theory is: (1) individual players belong to (or are members of) certain sets; (2) that players interact with other players within sets so – in effect – there are different games being played in different sets; and (3) players adopt strategy and set membership of successful individuals.³ Evolutionary set theory makes some striking predictions based on large-scale computer simulations. This paper takes the lessons and predictions from this theory and applies them to actors supporting transnational extremism in Pakistan, by taking the three Cs of the typology as the relevant sets in question.

The following Section 2 is an examination of the microscopic dynamics of the Pakistani state, and the assumption that it is a unitary, rational actor. Section 3 then presents a typology for the three interest groups of intra-state actors and proxies in Pakistan. Section 4 presents an evolutionary game theory perspective on the internal dynamics of these actors in Pakistan, and also reviews some background material. The paper concludes in Section 5 with policy recommendations for American and Indian policy-makers alike.

2. PAKISTAN UNDER THE MICROSCOPE

Intra-State Actors and Internal Dynamics

While the strength of the al-Qaeda “hardcore” in Afghanistan/Pakistan has considerably diminished since 2001, not the least with Osama bin Laden's death in 2011, such is certainly not the case with the Lashkar-e-Taiba (LeT) – a representative proxy for sub-conventional warfare directed by Pakistan

towards India. Growing beyond its original role as a “liberating force” for the Kashmiri people, the LeT has in the past planned Mumbai-style attacks in Denmark, and is known to have a significant financial support base among British-Pakistanis of Kashmiri origin.⁴ French intelligence has also linked LeT supporters to Richard Reid (“the shoe-bomber”) and to at least one foiled plot in Australia that involved using the LeT as “force multiplier.”⁵ From being a local and rather parochial *jihadi* group ascribing to *Ahl-e-Hadith* – a South Asian version of Salafism – and almost exclusively focused on a small geographical location, to being a transnational terrorist organisation perhaps even more capable than al-Qaeda proper, Lashkar's is a cautionary tale of how a militant group initially conceived as a mere covert arm of a state engaged in a politico-strategic conflict could rapidly outgrow itself to “storm the world stage” (to use the title of Stephen Tankel's book on the LeT).

Since its inception, the story of the LeT is one of how and why Pakistan manages its proxies and how and why such proxies – far from being isolated, covert arms – are very much a part-and-parcel of Pakistan's military and foreign policies, to a degree that when these entities attack the state itself (literally and figuratively), definitive actions tend to be largely absent. Stephen Krasner termed Pakistan's almost-uncontrolled nuclear weapons program and its appetite for sponsoring transnational terrorism, “a fully rational response to the conception of the country's national interest held by its leaders, especially those in the military,”⁶ a point echoed by Christine Fair in her recent book.⁷

The core of this apparent “fully rational response” is, however, cased in an unhealthy co-dependency between the Pakistani state and the various militant entities it supports that goes far beyond a simple sponsor-client relationship. The core and its casing has been recently ably dissected by several authors including Krasner and Fair⁸ and repeating those analyses would be redundant. Their main points are:

1. Right from its conception in 1947, the Pakistani politico-military stance has been exclusively “India-centric”;
2. The state sees the use of proxies against India as a cost-effective counterweight to the asymmetric conventional military capabilities

between the two countries. The Pakistani state is reluctant to sever ties with militant organisations because of its foreign policies towards Afghanistan and India;⁹

3. The events of 11 September 2001 merely forced the Pakistani state to placate the US by halfheartedly combating groups like the LeT, while fuelling groups like the Haqqani Network and the (late) Mullah Omar-led “Quetta Shura” to stave off any potentially unfriendly government in Kabul;
4. The handlers of these proxies have managed to create a governing apparatus of their own, playing both the civilian leaderships and military commanders off-centre, not to mention sending out ambiguous signals to the US and its allies in their effort to bring a semblance of normalcy to Afghanistan.

Zalmay Khalilzad, former US Ambassador to Afghanistan and Iraq, proposed a “conengagement” strategy for dealing with Pakistan by placing it in a class of countries that are both adversaries and allies at the same time (like China and Russia, for instance)¹⁰ with some vectors of interests of Pakistani elites pointing towards the US and others that do not. While Khalilzad's analysis could be termed “macroscopic” (to a large extent based on the evolution of the Pakistani nation-state in general), there is a pressing need to derive a microscopic typology for all intra-state actors in Pakistan which makes Pakistan a “frenemy” – to use colloquial parlance – in the first place. This typology views the Pakistani state and its proxies and non-state supporters as a union of three different groups with respect to their interests in jihadi terrorism. These three groups have significant overlap with each other; all originate inside the Pakistani army with the civilian leadership mostly either a generally uninvolved spectator or else an indulgent junior partner.

Mahin Karim notes that Pakistan's internal extremist groups show “wide differentiations by intention and even more profoundly by geography.”¹¹ She says: “A clearer understanding of the competing motivations, spheres of influence, and 'balance of power' dynamics among these groups is essential to effectively inform any big-picture analysis of

Pakistan's future political trajectory and its impact on regional stability.”¹² Writing of Pakistan's extremist groups, Christine Fair comments that a simple-minded description of these groups as 'Islamist', or 'terrorist', or 'sectarian', “suffers from considerable under-specification.”¹³ Karim's and Fair's comments hold equally true when it comes to supporters of these groups inside the Pakistani military-state.

Pakistan as a Non-Unitary State

Graham Allison – in his classic analysis of the Cuban missile crisis of the early '60s – compared three models of state behaviour: a unitary state that acts rationally; a state whose decisions are driven by its bureaucratic structure; and a state whose actions are predicated on internal dynamics between political constituents.¹⁴ Nevertheless, the “big-picture” analysis of Pakistan's evolution has historically been made through the prism of the rational unitary actor model of state behaviour. The pertinent question is this: Is the Pakistani state (1) rational, and (2) unitary? This paper argues that (1) holds in a specific sense of the term, and (2) does not.

The notion of 'rationality' in the social sciences is largely derived from its economics sense: A 'rational' actor is one which maximises some (directly unobservable) utility function – the so-called “ordinal utility model” – or, in its equivalent, exhibits consistent preferences when faced with choices.¹⁵ A 'rational unitary state' is defined by Bruce Bueno de Mequita and William Riker to be one where “national decisions [...] are made by a single, dominant leader who is an expected utility maximizer.”¹⁶ George Perkovich – in a paper on deterrence stability in South Asia – notes that the unitary actor model is more an ideal than a “descriptive reality.”¹⁷ He argues that Pakistan should be considered a non-unitary state since “doubts about the monopoly of the Pakistani state's control of forceful actors and actions emanating from the state challenge the unitary rational actor assumptions on which deterrence rests.”¹⁸

But is the Pakistani state rational? Perkovich notes that while rationality is not a given for a unitary state, it is much more likely to be the case that a non-unitary state is irrational.¹⁹ Christine Fair, for her part, argues that the

Pakistani state is rational, based on her extensive study of Pakistan's strategic culture.²⁰ This paper, however, views the internal dynamics of the Pakistani state from an evolutionary game theoretic point of view. In such a theory, players dynamically adjust their strategies as the game progresses based on payoffs of the previous run. Evolutionary game theory views players as 'boundedly rational', that is, the rationality condition on the players are weaker than those in classical non-cooperative game theory. In evolutionary game theory, players “learn how to play games through trial and error”²¹ often through imitative behaviour. In other words, in the framework of this paper, intra-state actors in Pakistan repeatedly adjust their strategies – as individuals, and in three “C” groups – based on payoffs from earlier iterations of the game in order to improve their evolutionary fitness. Furthermore – and this is crucial – each of the three “C” groups have a game being played inside them in which players either cooperate with each other or not; the games themselves are different.

3. A TYPOLOGY OF INTRA-STATE ACTORS

This section presents a typology with three sets of intra-state actors in Pakistan who each serves to further transnational extremism, but each according to what gains it perceives to derive from such support. In other words, the 'utility' that each of these three groups is trying to maximise are different. These groups constitute key individual “representative” actors, their followers, and support mechanisms. While these actors interact within the grouping, any actor may belong to more than one group. Depending on their “success,” or “failure”, other actors choose to each “cooperate” with them or not; interactions within these sets lead to a dynamic evolution of the groups themselves, strengthening or weakening them as they evolve.

The Complicit Group

The first group, which will be termed *complicit*, is largely backed by former and serving ISI officers, conjecturally from its Directorate S which was in charge of managing the Taliban, and which has ties to jihadi groups going

back to the 1980s. This group wants Pakistan as a model state for the entire Islamic *ummah* – General Zia ul Haq's vision *redux*, as it were. This group did not hesitate in harbouring top al-Qaeda and Taliban leaders or, for that matter, directly engaging American forces as it did in 2007, not because it shares Salafist ideologies (it often does not) but because of a deep sense of Muslim nationalism and therefore – per their logic – anti-Americanism. This group pursues policies in Kashmir through the use of *Deobandi* militants. In fact, few of the militant groups deployed by this group towards the prosecution of Pakistan's Kashmir policies – the so-called Kashmiri *tanzeems* – comprise ethnic Kashmiris.²²

The poster child of this group is the (late) Lt. Gen. Hamid Gul, former ISI Director General – though several other senior ISI and military officers could share Gul's mantle²³—and its principal ideologue Hafiz Saeed who was, as Bruce Riedel notes, a featured guest at an *iftar* hosted by a corps commander in Rawalpindi.²⁴ The muscle for this group are the new recruits in the Pakistani army who often share the same (lower middle class or rural) backgrounds as the foot soldiers of groups like the LeT, making the former considerably closer to the latter, at least culturally if not ideologically. The complicit group also holds that the civil-military distinction is fundamentally a Western one, and that Islam does not recognise such distinction.²⁵

Even though, by construction, the army remains the parent organisation of the ISI, there is evidence of resentment towards that branch from the rest, mostly related to financial matters or, at the least, related to issues of relative superiority.²⁶ The relationship between Pakistani military intelligence and the ISI is also fraught with difficulty, with suggestions that they often work at cross-purposes.²⁷ A simple fact of life in Pakistan is that even though the ISI was created as coordinating intelligence agency for the various armed services, it remains distinct from the army and, to a large extent, autonomous from it. An American government intelligence analyst once noted that the “ISI was free from the normal constraints imposed by the chain of command.”²⁸

This could be one of the reasons why there was no contradiction when the former Chairman of the US Joint Chiefs of Staff Admiral Michael Mullen

had “given an A” to the Pakistani army during its fight with Taliban elements in the Federally Administered Tribal Areas (FATA) in 2009-2010²⁹ and the next year, right before his retirement, described the Haqqani Network as a “veritable arm of the ISI” to the US Senate Armed Services Committee.³⁰ When David Headley described the involvement of ISI officers in coordinating the Mumbai attacks of 2008, one is almost certain these were officers belonging to the complicit group. In fact, in an interesting coincidence in semantics, Matt Waldman calls the ISI's relationship with the Quetta Shura one that goes “far beyond *contact* and *coexistence*”³¹ [emphasis added] which agrees with the terminology here – of calling this set of actors 'complicit'.

The Culpable Group

The second group – the *culpable* – consists of elements in the Pakistani army's leadership who may know of the presence of transnational terrorist groups within its terrain but are unable to act against them more for reasons of omission than commission. The *culpable* also consists of elements who view groups such as the LeT as exclusive instruments of the state. Forward-looking, westernised and status-quoist, the zenith of this group was under President Pervez Musharraf who, tellingly, termed himself the 'Chief Executive of Pakistan' after a bloodless coup d' etat against Nawaz Sharif brought him to power. The leadership of this group – products of elite staff colleges in the West – is mostly interested in managing the business that is the military in Pakistan.³²

With the optimistic goals of “enlightened moderation” (Musharraf) and “repainting Pakistan in brighter colours,” the culpable group wants as drivers of Pakistan's future “a vibrant entrepreneurial class, a growing middle class, a free and assertive media, a ferociously independent judiciary and a large segment of youth”³³ while at the same time reserving all instruments of force (including the unsavoury ones) under its control. This group realises that terrorism directed at India is a cost-effective way to sub-conventionally close the conventional gap.

It would, however, be a grave mistake to imagine this group as the best which other states – in particular, the United States – could 'do business' with, so to speak. At its core, the culpable group held the US responsible for seducing weak civilian leaders with its support, and saw vulnerability to an Indian attack from the east as the cost of having to fight the Taliban. It believes in “entitlement in the quest for influence in their neighbourhood,”³⁴ and is driven by a sense of “geopolitical aggrandizement.”³⁵ Both of these quests – and pure personal financial considerations have also led the culpable group to cultivate an “all-weather friendship” with China which has often put it at loggerheads with the complicit group.

An event on 29 August 2008 illustrates this point—when two Chinese engineers were abducted in the Swat Valley. The Pakistani Taliban claimed responsibility for the abduction, in retaliation for what it said was Chinese pressure that drove the infamous Lal Masjid operations in 2007. China expressed deep displeasure at the ISI's pace in resolving the kidnapping crisis during Gen. Kayani's Beijing visit in September 2008 which resulted in the ISI chief Nadeem Taj being removed from his command and transferred days after Kayani returned to Pakistan. Notably, Taj was seen by Indian and US intelligence as responsible for the Indian Embassy bombings in Kabul.³⁶

There are commonalities between the culpable group and the complicit one. As Munir Akram puts it, Kashmir remains for them (as with the complicit group) the main non-negotiable. This group will indeed continue to support entities “who favor integration with Pakistan or separation from India.”³⁷ The culpable group sees sub-conventional activity (and actors) in Kashmir as a strategic instrument to be wielded in pursuit of the Kashmiri cause. The culpable group also shares with the complicit one the notion of 'strategic depth' which is supposed to be a pro-Islamabad Afghanistan, where the army can regroup in the event of a retreat from the eastern and northern borders following a full-scale Indian invasion. This quest for strategic depth is what makes the culpable group the main actor in the determination of Afghanistan's future.

The Collateral Group

The third and final entry in this typology will be termed the *collateral* group,³⁸ a collection of individuals within the Pakistani army and the ISI, backed by powerful civilian and feudal leaders who have acted (and continue to act) as fellow-travellers with various jihadi groups. This is the group that has also engaged in the transnational proliferation of weapons of mass destruction. With motivations that are neither political nor ideological but simply financial—to extract profits from various illicit deals—this group also comprises elements in the Pakistani establishment who have stubbornly refused to hand over A.Q. Khan to either the US or to the IAEA for exclusive one-on-one interrogation. In collaboration with the Haqqani Network – until the recent past – and individual actors like Dawood Ibrahim, this group also continues to profit from the illicit narcotics trade.

Gretchen Peters, in her insightful book,³⁹ ably describes the evolution of this group, from the so-called 'salad days' of anti-Soviet covert action in the '80s until recently. She notes its beginnings – through an alarming report published in the Lahore-based *The Friday Times* in September 1993 which directly implicated the ISI in the heroin trade – and the actions (or lack thereof) of successive US administrations in curbing these misdeeds. US Congressional Records has a testimony by Representative Frank Palone, Jr. on 3 October 1994, which endorsed the idea of the then Pakistani army chief Gen. Mirza Aslam Beg as being involved in narcotics trafficking to fund “covert foreign operations.”⁴⁰

The story of the collateral group is not complete without mentioning Dawood Ibrahim, one of South Asia's leading organised crime honcho who continues to live in a high-walled mansion in Karachi, shielded by the ISI from international authorities. Ibrahim, who started his career in the early '80s as a petty criminal in Bombay, is widely believed to be one of the world's biggest narcotics traffickers, designated both a “Global Terrorist Supporter” and a “Foreign Narcotics Kingpin” (the former label from the UN and the latter from the US). Like Hafiz Saeed's address, Ibrahim's Clifton Karachi one is not hard to find – yet for completely different reasons, he too continues to enjoy ISI support. Ibrahim's international money-laundering network – the

hawala system – has been a significant support system in the past for transnational extremism emanating from Pakistan.⁴¹

Dynamics Between the Intra-State Groups

The rise and fall—and resurrection—of the JeM and its leader Masood Azhar provide an interesting example of the dynamics between the complicit – directly supporting transnational terrorist groups operating out of (and often in) Pakistan – and culpable group – which has leveraged and orchestrated the activities of these groups to further Pakistan's strategic interests. Azhar's and JeM's modes of behaviour and operation offer insights into the complicated relationship between the two groups.

JeM was founded in 2000 as an off-shoot of the Harakat al-Mujahedeen (HuM).⁴² HuM leader Azhar – arrested in India in February 1994⁴³ – was freed by Indian authorities in a swap for hostages of the IC-814 hijacking in December 1999. An article in an Islamist website under Azhar's byline, while he was still in Indian prison, praised Pervez Musharraf's October 1999 coup d' etat against Prime Minister Nawaz Sharif, calling the Pakistan army “a guardian of the Islamic faith.”⁴⁴ ISI created JeM under Masood Azhar's leadership, who has been in its protection, in 2000 as a counterweight to LeT which was perceived to have become inordinately powerful in prosecuting Pakistan's Kashmir interests.⁴⁵

The US invasion of Afghanistan in October 2001 and support for the same from the Musharraf regime, as well as Musharraf's decision – following significant pressure from the US – to outlaw several extremist groups, antagonised the JeM considerably. The culmination of this antagonism towards the culpable group was in two assassination attempts by JeM on Musharraf in 2003.⁴⁶ By then, JeM had (in late 2001) split into two groups – one in favour of continuing to back the Pakistani and another – frustrated by continued Pakistan government support to the US in the Afghan theatre – advocated turning against the state itself.⁴⁷ Noteworthy is that Azhar's support for the assassination attempts on Musharraf did not result in the JeM being liquidated. Instead, the ISI paid “severance pay” to Azhar and other extremist leaders “in return for their agreement to remain dormant for an unspecified duration.”⁴⁸

The complicit group – the ISI in particular – and the culpable group were increasingly at loggerheads when it came to Pakistan's support for US policies in the Af-Pak region. This rift became public years later when ISI chief, Lt. Gen. Shuja Pasha had “lashed out” at Musharraf at an official review of the US operation to execute Bin Laden in Abbotabad in 2011, accusing him of acting against Pakistan's interest in supporting the US.⁴⁹ Indeed, Musharraf in an interview with an Indian television channel in February 2016 categorically stated that it was ISI – and not the Pakistan army – that was training groups like the JeM.⁵⁰ Musharraf's definition of a 'terrorist' was whether that individual operated inside or outside Pakistan – the culpable group acquiesces – indeed, encourages the former, while the complicit group supports both. Musharraf thus distinguished Azhar from Hafiz Saeed.⁵¹ The dynamics between the two groups is essentially driven by how and when the former can be effectively directed outwards to serve Pakistan's strategic interests. Azhar's case demonstrates that managing proxies through the “good terrorist/bad terrorist” dichotomy can lead to serious tensions between the complicit and the culpable groups.

The saga of AQ Khan – and the Khan Research Laboratories (KRL) – illustrates how the culpable group in the Pakistan military has interacted with collateral group members involved in nuclear proliferation. Pakistan's role as a leading proliferator of nuclear weapons technology is, by now, well-known, the gist of which is this: since as early as 1987, AQ Khan ran a network that supplied critical nuclear weaponisation technology – and/or 'know-how' related to them – to several countries in the Middle East as well as to North Korea: Iran (in 1987), Iraq (in 1990), North Korea (in 1993), and Libya (in 1997).⁵² As David Sanger wrote of Khan, “for the first time, a single individual—not a state, not a terror group—created a multinational business that provided an entire range of nuclear technologies to any willing buyer,” for reasons of financial profit.⁵³

The most notable fact about Khan's private proliferation activities is that he simultaneously served as the figurehead of Pakistan's nuclear weapons program under successive generations of military and civilian leaders in Pakistan. The relationship between AQ Khan and his 'business associates' and the Pakistan military establishment is a classic example of how the collateral group and the culpable group interact. Khan's activities were

ignored by the military establishment as long as he was advancing Pakistan's strategic interests, culminating in that country testing nuclear weapons in 1998. Evidence of Khan's proliferation activities had been piling up for some time. The International Atomic Energy Agency learnt through interviewing an Iranian scientist that Khan's network was behind Iran's acquisition of P-2 centrifuges installed at its Natanz facility.⁵⁴ In 2004, British and American investigators in Tripoli were presented with irrevocable evidence of the Khan network having assisted in Libya's quest for nuclear weapons.⁵⁵

Musharraf decided on a crackdown on Khan – much to widespread national consternation – on American pressure, leading to Khan's famous public admission of guilt on 4 February 2004. By that time, it had become clear to Musharraf that Washington's support for his rule was contingent on many clauses, the simplest one for him to meet being the crackdown on the Khan network. The culpable group's objective – illustrated by Musharraf's desire to stay on the 'correct side' of the American establishment – overrode the collateral group's business interests, even though the two had a shared goal of Pakistan's 'geopolitical aggrandisement'.

Placing the “three Cs” in Pakistan's Internal Security Dynamics

Table 1 summarises the description of three groups, their constituents and representative members.

Table 1 The three intra-state groups

Terminology	Constituents	Representative Member
Complicit	(Former and serving) Directorate S personnel of the ISI; other ISI personnel; members of known extremist groups acting as state proxies	Lt. Gen. Hamid Gul; Hafiz Saeed.
Culpable	(Former and serving) non-ISI Pakistan army personnel; civilian political leaders	Gen. Pervez Musharraf; Gen. Ashfaq Kayani
Collateral	"Narco-terrorists"; state-based narco-traffickers; non-ideological WMD proliferators	Dawood Ibrahim; Jallaluddin Haqqani; Gen. Mirza Aslam Beg; A.Q. Khan

Note, however, that (1) members of these groups may, in general, belong to two or more groups; and (2) that they need not be contemporaneous.

These two requirements pose tremendous analytical challenges. One challenge is that a given individual may belong to multiple groups; that person may also change their membership over time. The second challenge is that changing memberships of individuals may also result in one grouping growing 'stronger' relative to the other two. Finally, the three groups interact both inside their groups and across groups if members belong to more than one. Modelling – or even conceptualising – this interacting and dynamic relationship between the three groups requires a theoretical framework which would provide policy guidance. This theoretical framework – of interacting (bounded) rational behaviour between groups – is provided by evolutionary game theory.

The three Cs in the typology presented in this section each have their utilities to maximise which are, in general, not coincident. Individuals in these groups also want to improve their fitness over time – ensure that their specific interests are guarded, and become paramount over all other interests. However, as the typology demonstrates, individuals may have more than one interest they would like to further. The crucial parameter that determines which of these groups are dominant is to the extent individual actors in these groups choose to cooperate with one another based on what interests they share at any given point in time. Evolutionary game theory therefore becomes the unique theoretical framework in which the dynamics of the three Cs can be understood.

4. AN EVOLUTIONARY GAME THEORY PERSPECTIVE

Background

Game theory is the formal study of strategic behaviour. As such, it has found numerous applications in strategic studies and international relations theory, as well as being a mainstay in theoretical and applied economics. The Prisoner's Dilemma and the Nash Equilibrium are fundamental concepts in large swathes of analytical social sciences.

Evolutionary game theory is an extension of game theory to dynamical situations where repeated games are modelled between players in a

population. It seeks to model whether cooperation or defection is the optimal strategy for players to adopt as they seek to improve their evolutionary fitness. While evolutionary game theory, first and foremost, provides a mathematical model of biological evolution, it has found significant applications in economics and other social sciences.

The main difference between “classical” game theory and evolutionary game theory is this – in the latter, “game theory can be applied to situations in which no individual is overtly reasoning, or even making explicit decisions.”⁵⁶ In fact in evolutionary game theory, “many behaviours involve the interaction of multiple organisms in a population, and the success of any one of these organisms depends on how its behaviour interacts with that of others.”⁵⁷ A gentle introduction to evolutionary game theory with a focus on the evolution of cooperation is Nowak and Highfield.⁵⁸

More formally: The basic setting for evolutionary game theory is a game between any two players in a population with two strategies, 'cooperate' (C) and 'defect' (D). If a player plays 'cooperate' it costs the player c and gets the other player benefit b . If a player plays 'defect', then it costs the player 0 and gets the other player benefit 0. The payoff matrix can, thus, be written in the following way:

	C	D
C	$b - c$	$-c$
D	b	0

This is a Prisoner's Dilemma if $b > c > 0$: If both players defect (i.e. both want to incur no costs), both get 0, but if both cooperate both get $b - c$ which is a positive payoff. On the other hand, both know that the other could chose to unilaterally defect (this is the dilemma).

Evolutionary Set Theory

Evolutionary set theory (EST) – as developed by Tarnita, Antal, Nowak and others – is an extension of evolutionary game theory to 'structured

populations', i.e., populations which are stratified according to (overlapping/intersecting) sets. This theory takes as input that set memberships in societies – participation in activities, belonging to institutions, and other activities – determine the structure of society, and takes as its primary objective “to provide a model for cultural evolutionary dynamics of human society.”⁵⁹ EST is a dynamical theory which means that networks depicting relationships between actors evolve with time (see Figure 1 for a stylised representation).

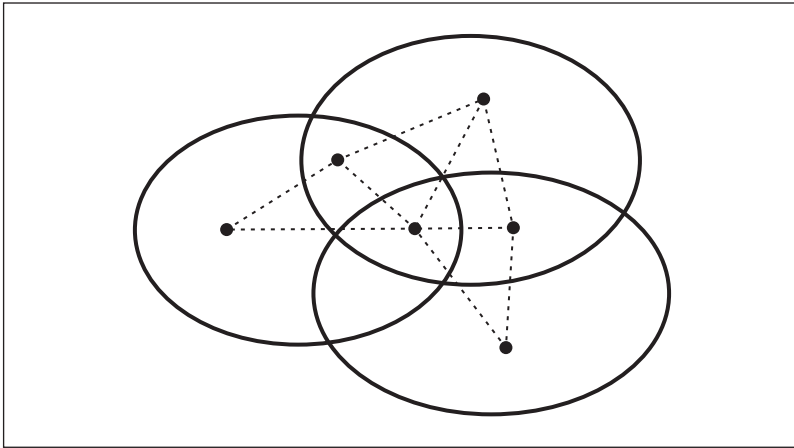


Figure 1 A stylised representation of an evolutionary set theoretic game. Note that this is a snapshot in time; memberships and network structure will change with time.

Set memberships themselves are formally modelled in terms of the likelihood of interaction between any two members of society or population. In a non-stratified society – which Tarnita et. al. calls a 'well-mixed population' (i.e. one with no groupings), any two individuals interact with equal likelihood, something which is not the case if these two individuals belong to the same institutions, or share the same beliefs, and belong to the same clubs, for example. In such a well-mixed population, cooperators (i.e. members who choose the 'cooperate' strategy) are always outcompeted by defectors (i.e. by members who choose to play the 'defect' strategy).⁶⁰

Individuals choose to imitate the strategy adopted by other successful individuals, but also join groups these successful individuals belong to. Sets with more successful individuals attract more members. Individuals (who can belong to many sets at the same time) interact with each other, and individuals who belong to several sets interact several many times.⁶¹ In such a population consisting of intersecting sets of individuals, cooperators out-compete defectors. This key result – exactly the opposite of that in a well-mixed population – is the crux of EST. In fact, it has been argued that cooperators prevail precisely “because they can form clusters, either in physical space, on networks, in phenotypic space or in sets.”⁶² Another key insight from EST is that “cooperation within sets is more likely than cooperation with individuals from other sets.”⁶³ This is analogous to what social psychologists call the 'social identity theory' – cooperative behaviour conditional on belonging to the same social grouping(s).⁶⁴

Implications For the Intra-State Actors Typology

The three Cs – the parts of the Pakistani state that are complicit in terrorist activities; or are culpable of harbouring groups that carry out such activities; or collateral to these groups in terms of being “business partners” in WMD proliferation or narcotics trafficking – present a picture of a rogue state or at the very least what Washington could (with difficulty) designate “a state sponsor of terrorism.” Yet what distinguishes Pakistan from, say, Iran (when it was in Washington's dog-house) is that intra-state groups in Pakistan continue to have significant overlap and points of merger and separation and continue to evolve dynamically whereas groups of intra-state actors in Iran have little overlap.

For example, as Bruce Riedel notes, Gen. Ashfaq Kayani was the ISI Director General during 2004-2007 – the planning period of the Mumbai attacks – and a time “when the Afghan Taliban received critical support from the ISI.” Yet as Chief of Army Staff, Gen. Kayani launched “significant counterterrorism operations in Swat Valley and FATA”⁶⁵ for which he was awarded nothing other than an A from none other than Admiral Michael Mullen, the former US Chairman of Joint Chiefs of Staff.

The ISI had once embraced the “Quetta Alliance” – a powerful narcotics producing and trafficking cartel of the '80s and early '90s with the Haqqani and Akhundzada clans as leaders – for pure financial profit. This would mark Haqqani and others as members of the collateral group, in the terminology of this paper. These same actors much later formed the “Quetta Shura” – which backs a return of the Taliban core into power in Kabul, making them part of the culpable group. These examples point to how intra-state interest groups evolve in Pakistan depending on what interest – an observable manifestation of utility, in the economic sense of the word – they are trying to maximise. For example, in the case of the Haqqanis – *père et fils* – it was a transition from maximising financial profit to maximising Pakistan's strategic interests in Afghanistan.

EST would predict that depending on the success of members of any of the Cs, one would see other individual actors changing their “set membership.” Gen. Kayani's seemingly contradictory behaviour – described above – could also be explained within the ambit of evolutionary games by putting him at the intersection of the complicit and culpable groups, the former promoting the use of state instruments for sub-conventional war against India (the Mumbai attacks), and the latter also interested in preserving the extant geography of the Pakistani state (coordinating military action in FATA).

There is a larger lesson to be learnt from evolutionary games when it comes to Pakistan's internal security dynamics, and their international consequences. EST predicts that while members of each of the three groups interact among themselves, given the fact that two individuals may interact multiple times depending on the number of the groups they share, some groups will become larger with time, with players changing their membership depending on whether they have faced cooperation or defection in their past interactions. Most crucially, cooperation is the norm in set-structured populations (as opposed to well-mixed ones) as the preferred strategy to improve evolutionary fitness. If this paper's interpretation of intra-state actors in Pakistan as players in games in a set-structured population is true, one expects 'cooperation' to be the norm as opposed to 'defection'. This is an inherently pessimistic conclusion in the

sense that the strategy of 'cooperation' is, normatively speaking, problematic.

Beyond the interpretation of the three intra-state actors as sets in a structured population given here, evolutionary game theory can also be used to understand the dynamics between the proxies themselves. Fair presents a typology of various Pakistani militant groups in her recent book consisting of (1) *Deobandi* groups (Afghan Taliban, Pakistani Taliban, sectarian *tanzeems*, and Kashmir *tanzeems*), (2) *Ahl-e-Hadith* groups (the LeT being the main example), and (3) *Jamaat Islami* groups (which includes the Hizbul Mujahideen).⁶⁶ In Fair's analysis, these groups and sub-groups interact with each other and within themselves. Such a typology could also be interpreted in terms of evolutionary game theory along the same lines of this paper.

5. CONCLUSION

One of the trickiest parts of building concrete policies *vis-à-vis* these overlapping groups inside the Pakistani military-state is their extremely dynamic nature. The classification presented should be viewed not as a snapshot at a given moment in time, but more in a cumulative way as actors play multiple games changing the structure of the groups themselves. The framework of evolutionary set theory provides one way of understanding how these groups evolve—in size, and over time.

An influential typology for state sponsorship of terrorism due to Daniel Byman – also motivated by the 'Pakistan question' – depicts it in terms of three distinct categories of active and passive sponsors, and sponsors belonging to some specific section of the state.⁶⁷ This may be convenient, policy-wise, since it allows policymakers to take specific action against a state (or even against “variants of the 'state'”) as a whole depending on which category of sponsors it applies. Should Pakistan be termed as a 'state sponsor of terrorism' by Washington, it would translate to a bouquet of sanctions at the economic level and, perhaps, covert engagement with its armed forces at the military level.


However, in the case of Pakistan, the first will invariably lead it to China, a geopolitical scenario that will not, to put it mildly, augur well for either India or the US. The 'China Pakistan axis' will be strengthened, something neither Washington nor New Delhi wants to see. The second course of action, which is covert military action, will drag the US back to Af-Pak for some more years to come, an idea that enjoys little support across the American political spectrum. With the al-Qaeda threat shifting from Af-Pak to the Arabian Peninsula and countries like Yemen, and the emergence of ISIS as the principal Islamist-radical threat, it is doubtful whether the average American will have any appetite for a prolonged confrontation with Pakistan. The current (outgoing) US administration as well as the one incoming in 2017 will be aware that the public could perceive as a mis-prioritisation.

More fundamentally, as has been argued in this paper, the three interest groups present inside the Pakistani military-state have significant overlap as well as striking points of difference which may or may not dissolve over time. Therefore a one-size-fits-all approach to Pakistan, whether that is economic or military, is highly unlikely to work. At the granular level and with a hint of a paradox, in the case of the Pakistani state (as opposed to its social constitution), it is the individual that defines the interest group in question, and not the other way around. This naturally implies shifting or multiple loyalties of a given individual – defining and redefining the groups themselves – depending on the game the individual is likely to play.

The evolutionary set theory perspective suggests that successful individuals in a given group attract imitative behaviour by which other individuals also join that group. However, discentivising “success” at the individual behaviour deters others from imitative behaviour and thereby weakens that group. Taken together with the last point, any policy that is consistent with the classification presented here must target individuals and not these most-often-nebulous groups.

This is also the conclusion made by Bruce Riedel in his book where he suggests that “instead of imposing sanctions on all of Pakistan, Washington could specifically target ISI officers, up to and including the Director General, if it had evidence for continued support for terror.”⁶⁸ As the Obama

Administration's policies – principally targeted drone strikes – have clearly demonstrated, targeting individuals can be a far more effective and expedient way to achieve national security goals than quixotic pursuits of groups that may not be demarcated in a clear-cut way to begin with. In principle there is no obstacle to using the same guidelines against rogue individuals affiliated to the Pakistani state, if not in manners of execution of the guidelines then in the guidelines themselves. This lesson applies to Indian policymakers in equal measure.

The biggest obstacle towards constructing Pakistan policies may yet be psychological: Keeping the overlapping Cs in mind, often, it is much easier to categorise individuals and entities in the and/or-way as opposed to the and/or/both-way being suggested by the typology in this paper. To put it differently, it is much harder to deal with elements that – through multiple memberships – maintain an apparent ambiguity about their nature than to deal with elements that can be more simply typified in a binary fashion. In the end, it is precisely this apparent ambiguity that has blindfolded a large section of analysts and policymakers and one that must be urgently resolved for clarity in any discussion on the future of Pakistan. 

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20, Rouse Avenue Institutional Area, New Delhi - 110 002, INDIA
Ph. : +91-11-43520020, 30220020. Fax : +91-11-43520003, 23210773

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Website: www.orfonline.org