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Libyan Nuclear Proliferation and Counterproliferation

Introduction

Libya's 2003 decision to voluntarily dismantle its weapons of mass destruction (WMD) program remains one of the most surprising and instructive cases of modern disarmament. A rare case of successful counter-proliferation provides crucial insight into the motivations surrounding nuclear weapons programs. Understanding the factors at play in pursuing nuclear weapons, and perhaps more importantly, what compels them to abandon these programs, may provide the world with an effective methodology for counteracting nuclear proliferation.

This paper will examine two competing theories developed by political scientist Scott Sagan for explaining nuclear proliferation in the Libyan case. The Domestic Policy will focus on these decisions through internal political dynamics, including: leader psychology, regime legitimacy, and popular pressure. The Security Model will discuss how these programs align with insecurities and conflict, both from regional and global enemies. By analyzing the rise and fall of Libyan WMD programs through both models, this paper aims to offer a more comprehensive understanding of the forces that drive and deter nuclear proliferation.

Background on Theoretical Debate

The following overview discusses which of Sagan's models was more impactful, whether it be the Domestic Policy Model or the Security Model, to Libya's nuclear and larger weapons of mass destruction programs. Due to the nature of Libya's WMD development, and how chemical, biological, and nuclear weapons served a similar purpose to the regime, they are often referred to as a joint set and discussed in parallel. The reasons brought in favor of the Domestic Policy Model will be split between Gaddafi as a personalist leader with the presence of Libyan nationalism, and the economic impact of sanctions and public pressure. Alternatively, the reasons

for the Security Model will be split between the rise of Israel as an ideological threat and Western-based foreign interventionism in the Middle East, with the utility of a credible deterrence.

Background of Case Study

In 1969, leading a bloodless coup against the Washington-aligned king of Libya, Col. Muammar Gaddafi, placed himself as dictator. Gaddafi's rise to power marked a radical transformation of the nation toward a socialist and Moscow-aligned regime. Occurring at the height of the Cold War and with the ongoing Vietnam War, many in the Western world feared a foothold on the continent would allow socialist revolutions to continue to spread throughout Africa. This “domino theory”, popularized by the ongoing Vietnam War and its suspected impact in Southeast Asia, was exacerbated further as Gaddafi called for Pan-Arab and Anti-Imperialism state ideology, promoting ideas of spreading an arab-wide revolution. Gaddafi nationalized American oil fields, removed American and British bases, and pursued closer ties with the USSR and other communist powers. Additionally, although never to the extent as expected, the western powers feared the Soviets could puppet Libya and stage nuclear weapons within the nation, threatening another flank of NATO if a conflict were to erupt. Due to these factors, in addition to others, relations between Tripoli and Washington soured, with the US placing embargos and removing its ambassador soon after Gaddafi’s coup. Gaddafi and the Western powers would remain ideological rivals for the remainder of the 20th century, as Libya conducted state-sponsored terrorism, vied with Western-backed powers, and promoted radical politics throughout his reign. These proactive actions, internal sentiment, external threats, in addition to rising uncertainty and tensions in the Arab world, drove Libya to pursue its WMD program.

Case Study - Domestic Politics Model

Domestic Politics Model: Personalist Leader

A key pillar of Muammar Gaddafi's four-decade rule was his cultivation of a powerful cult of personality and nationalistic ideologies, positioning himself as not merely a head of state but a revolutionary and messiah figure to the Arab peoples. This ideology became foundational to his legitimacy as a personalist ruler, established rigorous loyalty within Libya, and provided rationale for more extremist initiatives, including the pursuit of WMD. This allowed Gaddafi to frame his actions as righteous, allowing the program to remain secretive and be legitimized.

One of the most critical aspects of Gaddafi's ideology was derived from the 1956 Suez Crisis, a pivotal point for the rise of Arab nationalism and the Libyan pursuit of nuclear weapons. In the conflict, Israeli forces, supported by a joint British-French support, invaded Egypt to depose President Gamal Nasser, after he had nationalized the vital British-owned Suez Canal. Despite the Suez Crisis technically ending in a coalition victory, the Egyptians retained control of the canal and were seen as politically victorious, as the invading powers received significant backlash from both the US and USSR. Not only did this crisis elevate Nasser's status as a symbol of anti-imperialist resistance, but allowed him to become one of the most influential proponents of Pan-Arabism. This belief advocated for a unified Arab people joined in resistance against imperial powers, and opposing Zionism. As a student, Gaddafi was heavily inspired by Nasser and would continue to speak highly of him throughout both of their reigns (Brynes 2009). This ideological philosophy is crucial in understanding Gaddafi's militaristic motivations, particularly given Nasser's famously hawkish rhetoric, most notably proclaiming, "We shall not enter Palestine with its soil covered in sand, we shall enter it with its soil saturated in blood" (Katz 1973). Such rhetoric resonated deeply with the Pan-Arabism and Arab-Nationalist movements,

which not only saw Israel as a political rival but as a religious and existential threat. This climate of fear, pride, and ideological zeal lends itself well to Hymans' Psychological Theory on nuclear proliferation. Hymans argues that nationalistic states, with perceived external threats, are likely to develop nuclear warheads, not only for security but as symbols of national strength. Gaddafi's ideology, inspired by President Nasser, promoted nationalist sentiment and war posturing, leading to the logical development of WMD programs as a symbol of his regime's power, legitimacy, and defence.

Additionally, as a personalist leader, he is more included to pursue nuclear weapons due to fear of Western intervention – due to human rights violations, most notably the use of chemical weapons in a war against Chad in 1987 – and the lack of veto players within the Libyan government to hinder this program (Way 2013). Gaddafi's ethos represented stability in Libya and allowed nuclear proliferation to be viable. As violent unrest rose during the Arab Spring (2011), and Gaddafi's grasp on this cult of personality dwindled, his legitimacy to power eroded. In an attempt to reignite this mythos, Gaddafi would conduct many speeches, including "I will die as a martyr at the end. I shall remain defiant. Muammar is the Leader of the Revolution until the end of time." (Black 2011). This represents a common sentiment among personalist leaders, appealing to martyrdom and defiance serves not only to justify extreme policies like building WMDs, but also provides further authority and a sense of ideological righteousness.

Inversely, this cult of personality may have also encouraged Gaddafi's decision to end his WMD development. Gaddafi rose to be a global revolutionary leader, bringing economic prosperity and popular reform to his people. Instead, his policies had isolated Libya from the world stage, hurt his people through economic sanctions, and faced public discontent (Salama 2002). To counteract these effects while remaining in some position of strength, Gaddafi had

chosen to disarm the weapons programs, he attempted to paint it as a noble sacrifice for the safety of humanity. To present himself as a savior rather than a leader crumbling to economic pressure, Gaddafi claimed, “Libya has taken this decision with its own free will... to enhance peace and security in the world.” (Gaddafi 2003). This attempt to remain a leader of the people, fighting a righteous battle, in addition to the larger cult of personality and Arab nationalism, played a key role in Libya’s abilities and motivations to pursue nuclear weapons, but also how public image played a key role in Gaddafi's decision-making in the eventual dissolution of these programs.

Domestic Model: Internal Support

Due to the authoritarian nature of Gaddafi's reign, there is little documentation on the opinions of the Libyan population during Gaddafi’s rule. However, extrapolating public sentiment from across the Arab world – especially during the height of Arab nationalism – suggests there existed widespread support for conflict with Israel, and that pursuing WMDs would have been popular among Libyan citizens. This is shown well in the broadcasts of Cairo Radio, one of the most influential Arab stations of the era, which declared, “All Egypt is now prepared to plunge into total war which will put an end to Israel” or “The existence of Israel has continued too long... We welcome the battle we have long awaited.” (Cairo Radio 1967). Gaddafi aligning himself with this rhetoric served to drum up domestic support for his leadership to distract from the internal hardships within Libya (Raineri 2023). Possessing nuclear weapons would have provided an effective propaganda tool both at home and across the Islamic world, presenting Gaddafi as a savior to their nuclear opposition.

Inversely, public sentiment is widely regarded as the reason why Gaddafi dismantled the WMD programs in 2003. Domestic unrest was on the rise due to economic stagnation, largely caused by the sanctions imposed on Libya by the UN Security Council in 1993, hitting key financial and industrial sectors of the country, most notably freezing bank accounts and embargoing oil. Though the sanctions against authoritarian regimes often are less effective, due to the citizens not electing officials, these sanctions appear to have been a significant factor in Gaddafi's decision. This could be that these sanctions were so rigorous and absolute, held by most economic powers, that they truly became effective in degrading the regime's popularity and legitimacy (Braut-Hegghammer 2017). These sanctions, in addition to utilizing populist sentiment against the regime, paint a more complete picture of how citizens drive and dissuade internal motivations to pursue nuclear armament.

Case Study - Security Model

Security Model: Israel

Throughout the Cold War and into the 21st century, the Middle East and North African regions (MENA) have been a theater of religious and political rivalry, with Israel becoming the most significant source of contention. This conflict is often attributed to the ideological conflict between Pan-Arabism and Zionism, which is the belief in a secure homeland for the Jewish people. To Gaddafi, Israel represented a formidable and dangerous ideological foe, as it vied with his Arab allies, suppressed the Palestinians, and became a nuclear-capable state.

As Zionism and Pan-Arabism clashed in the MENA region, relations deteriorated between the two sides. This culminated in 1967, during the Six-Day War, in which Israel preemptively attacked several Arab states for harboring and supporting pro-Palestinian

independence groups. After swiftly defeating and occupying portions of the Arab powers, tension rose significantly, launching an arms race between these two forces, in which Israel was suspected of developing and successfully testing nuclear weapons. Given that a regional adversary had gained nuclear weapons, would be inclined to use them against ideological opposition, and were in constant conflict with the Pan-Arab peoples, Gaddafi would have seen it as his duty to develop similar weapons to defend the Arab world. Gaddafi himself called for " the inclusion of a nuclear component in the development of a multifaceted deterrent force" (Sania 1997), while Israeli Prime Minister Levi Eshkol wanted to "make it clear to the government of Egypt that it has no aggressive intentions whatsoever against any Arab state at all" (Eshkol 1967). This adheres to Sagan's Spiral model, in which both sides pursue weapons, not out of greed, but out of fear of their enemy becoming technologically superior to them, misinterpreting their development as aggression. Both Israel and Libya saw their armament as security-seeking, while viewing their opponents' build-up as expansionist. Without significant cost-signaling from either party, due to the near-constant conflict in the region, this spiral led both sides to pursue nuclear weapons. This model, in conjunction with the larger security model, provides a plausible explanation for the development of nuclear weapons for Libya.

Additionally, Gaddafi may have considered pursuing nuclear weapons to exploit Glenn Snyder's Stability-Instability Paradox, a theory which holds that two nuclear-capable nations avoid conducting conventional war due to the risk of escalating the conflict into a nuclear one. Instead, conflict is more likely to occur on the subconventional level – utilizing clandestine operations, proxy conflicts, and terrorism – since, as Robert Jervis states, "strategic stability creates instability by making lower levels of violence relatively safe" (Jervis 1989). This scenario would favor Libya, which would have greater freedom and strategic advantage in

supporting pro-Palestinian groups operating against Israel without fear of retaliation, even though Israel possesses technologically superior conventional armed forces. Nuclear deterrence would thus allow the Israeli-Arab conflict to shift in an asymmetric battle, providing Libya a distinct advantage without even directly using the nuclear weapons. This provides a more aggressive interpretation of the Security Model to explain the pursuit of the Libyan nuclear weapon program.

Security Model: Western Interventionism

The legacy of Western interventionism in the Arab world played a significant role in Libya's pursuit of national security and nuclear ambitions. As empires crumbled after WWII, many powers — most notably the United States, the United Kingdom, and France — sought to maintain their strategic holdings and influence through the region in the neo-colonial age. This was achieved by toppling non-compliant foreign leaders, utilizing violent suppression of independence movements, and military intervention to recoup vital resources and secure Western economic and geopolitical interests. Gaddafi saw this rise in Western interventionism as a significant external threat to Libya's autonomy and his ambitions of a united Pan-Arab peoples. Influenced by the Algerian War of Independence (1954–1962) in which France brutally suppressed anti-colonial uprisings, Gaddafi's hostility towards the imperial power (Cherif 2023). This struggle reinforced his commitment to Arab unity and shaped his anti-Western sentiment further.

In 1986, the Reagan administration, along with British support, conducted a bombing campaign of Libya's military infrastructure in retribution for a terrorist attack at a Berlin nightclub attributed to Libyan-backed terrorists. These raids crippled crucial conventional

defensive capabilities although they had failed its primary objective of killing Gaddafi himself. Even if Gaddafi had not been the intended target, he certainly believed he was: “Was Reagan trying to kill me? Of course. The attack was concentrated on my house and I was in my house” (Colvin 1986). After this direct threat to Gaddafi's life, in addition to these acts of aggression occurring near Libya and their anti-Western stance, Gaddafi likely feared he risked similar Western aggression without a credible deterrence. The clear path to achieve this was to develop WMDs, ensuring a foreign power would be more wary of the risks before initiating a conflict with Libya, for fear of a retaliatory second strike if it were secure enough.

At the turn of the century, with stalled progress in its nuclear ambitions and with increased global scrutiny, Libya dismantled and declassified its WMD programs. This, according to the security model, is explained hawkish policy of the US towards the Islamic world in the post-9/11 era. Under the Bush administration’s Global War on Terror, the US adopted a doctrine of justifying preemptive wars around the Arab world, around counteracting state-sponsored militant Islamists, WMD programs, and rogue states. Libya found itself increasingly under threat, as it had supported decades of terrorist and WMD activity, and was implicated in Bush’s “Axis of Evil”, a set of states that the US deemed threats due to their role in these practices. The American Invasion of Iraq (2003), justified by the (ultimately false) claim that Iraq had pursued WMDs under the leadership of Saddam Hussein, served as a distinct warning sign to Libya. Gaddafi feared that his regime might be the next to be toppled, especially since they truly were pursuing nuclear weapons, and the US had proved it was willing to act on this aggressive doctrine. It should be noted that experts still debate the impact of the 2003 Invasion of Iraq on Gaddafi’s disarmament, with some claiming Libya was already in the process of dismantling its WMD program, and impacted more by earlier conflict, including the Gulf War (Kerr 2004).

Additionally, Libya in recent decades at this point had fallen out with many in the Arab world, and lost a formidable ally in the Eastern Bloc with the collapse of the Soviet Union in 1991. With few allies and many enemies demonstrating a "…willingness to use force unilaterally and preemptively are likely to have influenced [Qaddafi's] decision to denounce his WMD programs (Gawdat 2005). This adheres to the framework of a Security Dilemma, in which Libya developed military advances for defence, only to increase its risk on the world stage. Unlike most nations in similar situations, Libya chooses to de-escalate this dilemma on its terms, believing it faced a smaller risk by not possessing a WMD program.

Analysis

Sagan's Security Model offers a compelling causal interpretation of the Libyan nuclear ambitions, highlighting the role of regional and global conflict that played a significant role in the actions of state leaders of MENA throughout the late 1900s. However, it relies heavily on states behaving as rational actors in an environment marked by deep political, ideological, and religious tension. Additionally, the Security Model relied on official testaments, which are self-serving and unreliable and are often contested by experts. In contrast, the Domestic Politics Model offers a unique explanation from the angle of the leader and citizen, most notably its ability to rely on the spoken word. The model is centralized around the leader's external ideology, and has a more robust research around leader psychology, as compared to nuclear security. It also has its shortcomings, including limited information on Libyan sentiments during the regime and uncertainty around the psychology and ideology of one leader over 40 years. At the end, the Domestic Politics model appears more convincing, although in conjunction, these models provide a more complete understanding of the life of the nuclear program.

Conclusion

Nuclear proliferation and counter proliferation motivations in the case of Libya are nuanced and complex, shaped by both internal and external factors. While security and external conflict did play some role in his decisions, Gaddafi's motivation for pursuing and disarming the WMD program was more closely related to his personalist ideology, public sentiment, and the pressure of domestic stability. In this context, the Domestic Politics Model provides a more compelling explanation, as it integrates the influence of leader psychology and nationalist sentiment alongside internal pressures, which the Security Model overlooks. Understanding the motivations behind Gaddafi's choice to disarm offers a rare example of a relatively peaceful route to counterproliferation, possibly applicable to other rogue nuclear-aspiring states. As nuclear technology becomes readily available and the international community counteracts the rising risk of nuclear proliferation, finding a viable and peaceful solution becomes increasingly crucial to global security.

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Prompt formats:

"I am writing a university-level political science essay about [background]. I have this snippet of text, without altering it directly, explain how I can make it stronger: [text section]"

"I am writing a university-level political science essay about [background]. I have this section, which is too long and informal. How can I condense this concept to fewer sentences: [text section]"

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Prompt formats:

"I am writing a university-level political science essay about [background]. I am looking for scholarly sources or articles to prove or disprove [concept]."

"I am looking for a direct quote from [leader or prominent speaker] on the topic of [relevant topic]"