Understanding coercive nuclear reversal dynamics: a comparative case study of US coercive diplomacy against the nuclear programs of Iran, Libya, and South Africa

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LITERATURE REVIEW: WHAT DO WE KNOW ABOUT THEORIES OF COERCIVE DIPLOMACY AND NUCLEAR REVERSALS?

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This chapter aims to provide a substantial overview of the previous theoretical knowledge on coercion and nuclear reversal. Concerning the former, we will stress the prosperous conditions of coercion in general, particularly coercive diplomacy. But we will first emphasize the different types of coercive strategies and mechanisms. Concerning the latter, we will stress the definition and the various theories related to nuclear reversal dynamics. Hence, this chapter is divided into two sub-parts: the first will emphasize the theoretical aspects of coercion (strategies, instruments, mechanisms, and theories), and the second will stress the theoretical aspects of nuclear reversal. It's crucial to emphasize that our research objective is to pinpoint the favorable conditions for successful coercive diplomacy. The first subsection will delve into coercion, with a specific focus on coercive diplomacy. This will involve an in-depth examination of coercive strategies, instruments, mechanisms, and theoretical models for effective implementation.

2.1 SECTION I - COERCION: STRATEGIES, INSTRUMENTS, MECHANISMS AND THEORIES.

2.1.1 Coercion: strategies, instruments, and mechanisms.

2.1.1.1 Coercive strategies

2.1.1.1.1 Punishment-based coercive strategy.

The strategy of punishment seeks to raise the societal costs of continued resistance to levels that overwhelm the target state's territorial interests, causing it to concede to the coercer's demands.[20] When implementing this strategy, the coercer usually focuses on what the adversary treasures. David Johnson confirms it as he argues that it involves "threatening to kill or harm civilian populations, to kill soldiers in combat, or virtually any other threat to inflict harm against something that the enemy decision-makers value."[21] As we will see later in the coercive instrument sub-part, the punishment strategy is usually implemented with economic sanctions. Another coercive strategy often used by decision-makers is denial. According to Robert Pape, punishment strategies usually fail because they lack credible or significant coercive leverage in many regards. First, there is a discrepancy between the means and the goal the coercer tries to attain.

[20] PAPE, Robert: **Bombing to win: air power and coercion in war,** New York, Cornell University Press, 1996, p.18

[21] JOHNSON E., David et al: **Conventional coercion across the spectrum of operations: The Utility of U.S. military forces in the emerging security environment,** Santa Monica, Rand corporation, 2003, p.16

Economic sanctions and punishment-driven air bombings are weaker or minor instruments compared to political goals such as the seizure of territory, which are in the highest interest of the target. In this case, decision-makers are usually ready to bear the cost of civilian casualties, especially when they are emboldened by security and nationalist-based motivation. Consequently, the expected unrest mechanism, which refers to the public contests that could topple the government, will likely fail. In this case, the punishment strategy is likely not only to fail but also to backfire as it will trigger a rally-around-the-flag effect in the population instead.[22] Taking the example of WWII, Karl P. Mueller confirms the unexpected effect of strategic air bombings on the target's population in these terms: "strategic bombing campaigns failed to produce the sort of rapid, decisive results originally envisioned by many of their proponents. Populations subjected to terror bombing did not revolt against their governments, demanding capitulation in order to stop the carnage as Douhet had predicted."[23]

Also, the risk of losing the face or being framed as cowards usually encourages decision-makers to adopt firm stances, considering especially the fact that [military] coercion usually occurs in the context of war. As Pape argues, "the experience of war and government propaganda can demonize the enemy and lead to an uncompromising "us or them" attitude in which anything less than victory comes to be seen as disaster."24 Another cause of the failure of punishment strategies is their incapacity to inflict unacceptable damage on civilians. In addition, more and more States develop strategies aimed at preventing substantial collateral damage to their population; this can be done through evacuation of threatened areas or rapid adjustment to economic dislocations.

2.1.1.1.2 Denial-based strategy.

Unlike punishment-oriented strategies, which aim at increasing the cost of resistance to the target, the objective of denial-based strategies is to decrease the appeal or advantage of resistance to the target. A seminal work on denial-based coercive strategy is Robert Pape's classic *Bombing to win: air power and coercion in war.*[25] Pape's objective in this book is to demonstrate, among others, that denial strategies are more effective than punishment strategies; we will elaborate substantially on Robert Pape's work in the sub part dedicated to military coercion. A denial strategy aims at breaking the resolve of the target to fight, notably by undermining his strategy. More precisely, it

[22] LAMBERT J. Alan et al, **Threat, politics, and attitudes: toward a greater understanding of rally-'round- the flag effects,** Sage Journals, 2011, 6 pages.
[23] MUELLER P., Karl, **Air Power**, RAND Corporation, John Wiley and Sons, Ltd, 2010, p.3.
[24] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.22
[25] Robert Pape's work is analyzed here regarding his inputs on a specific coercive strategy, and not on the types of coercion like air bombings as analyzed later in the research project. This precision is made for the reader not to have the feeling of repetition.

threatens to defeat the adventure, so that the challenger gains nothing but must still suffer the costs of the conflict.[26] Considering the fact that war is not always a zero-sum game (Schelling), one can assume that the resolve to fight depends on the worthiness or advantages of the conflict. Therefore, when deprived of his expected gains, the target will likely surrender. As Karl Mueller described it, *when the enemy recognizes that resisting the demands of the coercer offers no hope of producing an outcome better than conceding would be, it should choose to give in rather than continue to suffer the costs of war for no purpose.*[27] This can be achieved by the seizure of the enemy's territory or the destruction of strategic military infrastructures of the enemy.[28]

Robert Pape argues that *the key to the success of denial strategies rests in the interaction of the two sides' military strategies.*[29] The interaction between the two actors is important because it sheds light on the strengths and weaknesses of the target and/or on the sender. Based on the information revealed by the interaction of the conflicting military strategies, the coercer can effectively adjust his strategy. However, Robert Pape advises not only to *thwart the opponent's strategy* but also to anticipate and nullify *any possible countermeasures of the opponent*.[30] This can be done if the coercer has previously identified the type of military strategy adopted by his target. In this regard, Robert Pape highlighted two main military strategies: *mechanized (or "conventional") war and guerrilla (or "unconventional") war.* Therefore, the coercer should adjust its actions and responses depending on the target's strategy. After all, as Byman, Waxman, and Larson stressed regarding coercive air power, "the successful coercive use of air power requires favorable conditions and often depends more on the strategy chosen by the adversary than on the overall might of the coercer."[31] Notwithstanding the previous advantages of denials strategies, they also have limits.

Coercive denial strategies present several limits. First, the effectiveness of denial strategies depends on the nature and the scope of the demands made by the coercer. Indeed, if his demands outweigh the main bone of contention, his denial strategy is likely to fail; this is because the coerce can interpret it as a willingness to target his vital interests and will consequently resist. Conversely, limited demands are likely to encourage the target to comply, thus facilitating the success of the denial strategy. As Robert Pape put it, "if the target State is persuaded it will lose one territory but not

[26] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.7.
[27] MUELLER H., Karl, **Strategies of coercion: denial, punishment, and the future of air power,** Security Studies 7, N.3, 1998, p.188
[28] PAPE, Robert: **Bombing to win, *Op. Cit.,*** p.13
[29] PAPE, Robert: **Bombing to win, *Ibid.,*** p.29
[30] PAPE, Robert: **Bombing to win, *Ibid.,*** p.30
[31] BYMAN Daniel, WAXMAN Matthew and LARSON Eric: **Air power as a coercive instrument**, California, RAND Corporation, 1999, p.29

another, it will concede only the one that is lost. If the coercer demands more than it can persuade the target State, it would lose in continued fighting, coercion will fail even though denial was partly achieved."[32] In this regard, Robert Pape shares Alexander George's point of view regarding the favorable conditions for the implementation of coercive diplomacy, precisely the clarity of the terms of resolution of the crisis, as we will see later. Indeed, the clarity of the terms of the resolution of the political crisis is decisive as it reassures the adversary of the impossibility of the coercing State to make additional demands than those which were formulated at the beginning of the crisis.

The necessity for the coercer's ability to continuously pressure its target constitutes the second limit of denial strategies. Indeed, a gesture of appeasement is likely to be interpreted by the adversary as weakness. From a domestic perspective, a target is likely to comply when the political demands made by the coercer aim at modifying the composition of a political system and not substantially the system as a whole by attacking its core values. *The likelihood of concessions is higher when replacement of the target state's ruling elite can be accomplished by evolutionary rather than revolutionary change. Regime members have less reason to resist if their main social values are not under threat,* Pape argues in this regard.[33] The third coercive strategy we will emphasize is the risk-based strategy.

2.1.1.1.3 Risk-based strategy.

Risk-based strategies have been substantially analyzed by Thomas Schelling in his classic *Arms and influence.* Although he denied having been influenced by Clausewitz,[34] the premises of Schelling's description of risk-based strategy are similar to Clausewitz's. In fact, as Clausewitz argued in his classic book *On war*, "when we attack the enemy, it is one thing if we mean our first operation to be followed by others until all resistance has been broken; it is quite another if our aim is only to obtain a single victory, in order to make the enemy insecure, to impress our greater strength upon him, and to give him doubts about his future."[35] Hence, this strategy is rooted in the manipulation of the interests of the target by the progressive increase of the pain or damage inflicted by the coercer. In other words, the logic behind the risk strategy is that by effectively implementing the threats he previously announced, the coercer sends a clear signal to his target about what awaits him in case of further defiance. As Robert

[32] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.31
[33] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.31
[34] Schelling denied having been influenced by Clausewitz in an interview with Robbie W. Baillie. More precisely, he argued that he "didn't learn anything from Clausewitz." See BALLIE W., Robbie: **The utility of Jakobsen's *ideal policy* as a strategy of coercive diplomacy to prevent States attaining nuclear weapons,** PhD thesis, ***Op. Cit.***, p.21
[35] HOWARD Michael, PARET Peter (ed.): **Carl Von CLAUSEWITZ: On war**, Princeton, Princeton University Press, 1989, p.92. (Consulted online).

Art and Kelly Greenhill describe it, the *risk is essentially the promise to inflict pain if no pain has yet been inflicted, or to inflict more (and more) pain if some has already been administered, in order to convince the target to concede.*[36]

The causes of the failure of risk strategies are threefold, according to Robert Pape. First, the fact that risk-based strategies highlight the perception of the target does not *address a real distinction in the causal mechanism of the strategies.*[37] Consequently, (second reason) the effects of perceived damages can never match the actual damages caused by concrete military actions. Not to mention the fact that the target can easily adapt to the effects of the coercer's action and even retaliate with countermeasures. In other words, risk strategies cannot inflict decisive pain on the target. Finally, (third reason) risk strategies can also undermine the credibility and resolve of the coercer, as Rob de Wijk previously noted, though it was in the context of military coercion. *Instead of being convinced of the coercer's resolve to inflict maximum damage if demands are not met, the opponent is more likely to be convinced that the coercer will never escalate far above current restrained levels,* Pape warned.[38] Robert Pape identified a fourth coercive strategy which, in his words, *pursues both punishment and denial effects*: the decapitation strategy.

2.1.1.1.4 Decapitation coercive strategies.

The decapitation strategy aims essentially at breaking the target's will to fight of State by directly attacking its leadership and core telecommunication facilities. Paraphrasing John Warden, Ellwood Hinman IV argues that this strategy "to paralyze and incapacitate the enemy by destroying the maximum number of political leadership (…) in the minimum amount of time."[39] As Robert Pape argues, *the ideal decapitation campaign would attack key leadership facilities and communications networks in the opponent's political centers, in addition to vital nodes in a nation's economic infrastructure, such as electric power and petroleum refining*.[40] The basic calculus of the coercer when implementing a decapitation is that once the leader is taken down, the other constitutive elements of the structure of resistance will surrender because the main pillar has been destroyed.

"Regardless of the strength of a state's fielded forces or military-industrial capacity, if the leadership is knocked out, the whole house of cards comes down," as Robert Pape

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[36] ART Robert and GREENHILL Kelly, ***Coercion. An analytical overview***, ***Op. Cit.***, p.20
[37] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.28
[38] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.28
[39] HINMAN IV P. "SKIP", Ellwood: **The politics of coercion toward a theory of coercive airpower for post–cold war conflict**, CADRE Paper, Alabama, Air University Press, 2002, N.14, p.19.
[40] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.56

sums it up.[41] He distinguishes three types of decapitation strategies: first, the leadership decapitation, which focuses exclusively on the life of the main leader, second the political decapitation, where the goal of the coercer aims at creating circumstances where political groups will topple the regime (this is very close to the power-base erosion mechanism that we will analyze later), and third, *military decapitation, which attacks national command and communications networks in order to isolate the central leadership from its units in the field, so that the leaders can no longer give strategic direction or adjust to enemy moves*.[42] The following table summarizes well Robert Pape's coercive air strategies.

However, it is important to note that Christopher Moss stresses that inducements can also be considered a coercive strategy since they play two main roles: they *lower the costs of compliance* **(shield strategy)** and increase the benefits of compliance.[43] We challenge this argument because coercion is first and foremostly rooted in the idea of the use of threat or force as its etymology *cohercen* ("restrain or constrain by force of law or authority.") describes it. Therefore, putting forward inducement, which is *induce* ("to lead by persuasions"), as a coercive strategy deprives coercion of its core assumption. Inducement should be considered, at best, as an instrument in a broad coercive strategy or a mechanism aimed at influencing the calculus of the target.

Table 4. Coercive air strategies

Strategy	Theorist	Target set	Mechanism
Punishment	Douhet	cities	popular revolt
	Trenchard	cities	popular revolt
	Air Corps Tactical School	key economic nodes	social disintegration
Risk	Schelling	gradual civilian damage	avoid future costs
Denial	Luftwaffe	frontline forces	battlefield breakthrough
	Committee of Operations Analysts	weapons plants	equipment shortages
	Enemy Objectives Unit	POL/transportation	operational paralysis
Decapitation	Warden	leadership	leadership change or strategic paralysis

Table 1: Robert Pape's coercive air strategies.[44]

[41] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.56
[42] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.80
[43] MOSS J., Christopher: **Elegant coercion and Iran: beyond the unitary actor model,** Master thesis, School of Advanced Air and Space Studies, Air University, 2005, p.9
[44] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.57

2.1.1.2 Coercive instruments

From its Latin etymology, *instrumentum (tool, means),* an instrument refers to *a tool or device that is used to do a particular task*.[45] In our research, instruments are the tools used by the coercer to implement its coercive policy. Our research will focus on three main types of instruments: **economic, military, and political instruments.** With respect to the political instruments, we have coercive use of political leverage such as diplomatic isolation, while economic instruments refer to embargoes, and boycotts; we will elaborate deeper on these instruments in the sub-part dedicated to economic-based coercive strategies. Military instruments refer to the official use (air and marine strikes, deployment of ground troops) or covert use of military assets (cyber-attacks, operations carried out by the secret services.)

2.1.1.3 Coercive mechanisms

Mechanism: Daniel Byman defines a [coercive] mechanism as the "process by which the threat or infliction of costs generates adversary concessions."[46] In other words, the mechanism is the transmission belt between the coercive strategy and the coercive effect, which leads to a specific outcome. Byman identified four main coercive mechanisms: **power-base erosion, unrest, decapitation, weakening and denial**.

2.1.1.3.1 Power-base erosion.

Daniel Byman argues that the power-base erosion mechanism describes a process through which the target is expected to comply with the coercer's demand due to the risk of losing its core domestic support.[47] This is very similar to Pape's political decapitation we formerly analyzed. The coercer usually triggers this mechanism by putting "pressure on the adversary's constituency, which in turn causes an unhappy populace to pressure the government to alter its policy."[48] The pressure can be imposed via measures like economic sanctions, travel bans or other forms of measures which usually fall under the punishment strategy umbrella.

2.1.1.3.2 Unrest

Like the power-base erosion mechanism, the unrest mechanism also involves punishment strategies. Yet, unrest mechanisms occur through "popular disaffection." By applying punishment-based strategies like economic sanction to the target, the

[45] **Collins's online dictionary** https://www.collinsdictionary.com/dictionary/english/instrument. An information accessed on the 12th of December 2019.
[46] BYMAN Daniel and WAXMAN Matthew: **The dynamics of coercion. American foreign policy and the limits of military might,** The UK, Cambridge University, 2002, p.48
[47] BYMAN Daniel and WAXMAN Matthew: **The dynamics of coercion, *Op. Cit.,*** p.59
[48] ROMANIUK N., Scott and WEBB T., Stewart: **Insurgency and counterinsurgency in modern war,** The London, Routledge, 2015, p.109 (1st ed.)

coercer aims at increasing the cost of living in the country, which will lead to the population's unrest and demonstration, threatening, therefore, the survival of the regime or the government. As Byman described it, "the hope is that pressure placed on a country's population may "trickle up" and prompt decision-makers to concede."[49] According to Byman, the unrest mechanism can be effective under three conditions. First, in case the leader or decision-maker cares for the population and wants to alleviate its suffering. Second, the target's regime is one where there's considerable "popular input into the decision-making" and lastly, the population may revolt and try to topple the regime if it does not comply.

2.1.1.3.3 Decapitation

As previously analyzed with Pape, in this case, the coercer aims at threatening the personal security of the top leadership, which could be replaced by a less hawkish leader eager to comply. Byman argues that "actual assassination can bring to power a different individual or regime that may change the policy."[50]

2.1.1.3.4 Weakening/incapacitation

Weakening mechanisms usually occur when the coercive strategy aims at undermining the core infrastructures of the target to incapacitate the entire country. According to Rob de Wijk, a synonym of the weakening mechanism is "incapacitation," as its aim is to target *critical infrastructure, communications and other institutions that make up a country's economic strength and political cohesion.*[51] For the weakening mechanism to lead to the target's compliance, the coercer should focus on the target's "pressure points," which refer to the points that the adversary cannot "impenetrably guard," Byman argues. This was the case, for example, when the US compelled the British to stop their invasion campaign against Nasser's Egypt in 1956 by threatening to deny them access to financial assets, which could lead to an economic crash in the UK.[52] However, the weakening mechanism cannot be effective against autocratic regimes, which usually deviate the coercive effects towards the political opposition.

2.1.1.3.5 Denial

As we have seen previously, denial strategies aim at making the adversary realize the inefficiency of its counter-coercive strategy. As a mechanism, it occurs when the leader is dissuaded from continuing its controversial track or pattern. Byman emphasizes the necessity of distinguishing coercive denial and warfare denial. While the former "hinges

[49] BYMAN Daniel and WAXMAN Matthew: **The dynamics of coercion, *Ibid,*** p.65
[50] BYMAN Daniel and WAXMAN Matthew: **The dynamics of coercion, *Op. Cit.,*** p.72
[51] DE WIJK, Rob: **The art of military coercion. *Op. Cit.,*** p.140
[52] BYMAN Daniel and WAXMAN Matthew: **The dynamics of coercion, *Ibid,*** p.77

on the perception that benefits will not be achieved," the latter "rests on making that perception a reality."[53]

2.1.2 Theories of the successful conditions of a coercive strategy.

Like the definition of coercion and coercive diplomacy, there is no consensus in the literature regarding the conditions under which coercive diplomacy can be successfully implemented.[54] Certain authors emphasized a specific coercive strategy, while others stressed on the decisive role played by a specific coercive instrument. Before analyzing those different visions, we will first stress the pioneers of coercion, then on the different theories of coercive diplomacy that were developed, starting with Alexander George's conditions for the successful implementation of coercive diplomacy.

2.1.2.1 The pioneers of coercive diplomacy.

2.1.2.1.1 Sun Tzu

The seeds of the use of force as political leverage hark back to antiquity with the Chinese general Sun Tzu, and in the 18th Century with the Prussian General Car Von Clausewitz. In their respective seminal works,[55] they analyzed not only how an army could defeat an enemy without risking great losses, but also without resorting to the effective use of force. To understand the role that each of these strategists gives to violence, it is important first to stress their perception of war. According to Sun Tzu, *war is a vital matter of state. It is the field on which life or death is determined and the road that leads to either survival or ruin and must be examined with the greatest care.*[56] Given the strategic importance of the war for stability thus, the survival of the State, it is necessary to implement all the necessary means to win the war. Consequently, the leader must first assess the costs he or she will have to bear before waging a war, and, if possible, avoid it. As Roger Ames puts it, *the first priority is the avoidance of warfare if at all possible. Once, however, a commitment has been made to a military course of action, the project becomes to achieve victory at the minimum cost*.[57]

Sun Tzu identified several conducive conditions that must be considered by the political (or military) decision-maker before embarking on a military campaign. These conditions are mainly two-fold: objective factors and subjective factors. Regarding the

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[53] BYMAN Daniel and WAXMAN Matthew: **The dynamics of coercion, *Op. Cit.,*** p.78

[54] Although it may be tedious to review all the theoretical models of coercion that have been developed to provide an effective coercive strategy against a target, it's also important to have prior comprehensive knowledge of these models, analyze their strengths and weaknesses, then choose one model that will be the main analytical framework of the thesis, based the flaws identified previously.

[55] The Art of war (Sun Tzu) and On War (Clausewitz)

[56] AMES T., Roger: **Sun Tzu: the art of warfare,** New York, Ballantine Books, 1993, p.39 (1st ed.)

[57] AMES T., Roger: **Sun Tzu: the art of warfare, *Ibid,*** p.59

objective factors on the first hand, Sun Tzu lists five variables that can influence the outcome of any battle or warfare.[58] Among the variables likely to play a strategic role in the coercive dynamics is the *Moral Law,* which refers to the necessity for the political decision-maker to match up the military initiative with the laws of the State, but also to have beforehand the assent of his people before getting involved in a military campaign. Ensuring the consent of his people would allow him to have blindly obedient and insensitive people to the potential dangers. Then the *Commander* or *Leadership* which refers here to the intrinsic qualities of the political and/or military leader. These qualities include *humanity or benevolence*; *uprightness of mind*; *self-respect*, *self-control, or "proper feeling," wisdom and sincerity or good faith.*

Regarding the subjective factors on the second hand, Sun Tzu emphasizes that it is necessary for the strategist to have an optimal knowledge of his inner capabilities and that of his enemies. This knowledge will permit him to refine his strategy and adapt it proportionally to the evolution of the battle. As he asserts, *he who knows the enemy and himself will never in a hundred battles be at risk; He who does not know the enemy but knows himself will sometimes win and sometimes lose; He who knows neither the enemy nor himself will be at risk in every battle*.[59] However, victory, according to Sun Tzu, lies less in the ability to get as many victories as battles, but rather to defeat his enemies without having to face them militarily. After all, "to win a hundred victories in a hundred battles is not the highest excellence; the highest excellence is to subdue the enemy's army without fighting at all."[60] The second great strategist who laid the groundwork for coercion is Car Von Clausewitz.

2.1.2.1.2 Carl Von Clausewitz

Carl Von Clausewitz was a famous Prussian general and strategist (nowadays Germany). Although he analyzes war as a zero-sum interaction between rational actors, there are nonetheless scattered but real traces of coercion in his seminal book. However, before analyzing those elements of coercion, we will also emphasize the Clausewitzian perception of war. According to Clausewitz, "War is [..] an act of force to compel our enemy to do our will."[61] In other words, Clausewitz considers war to be an act of subjugation of the adversary to our will by the use of force. Clausewitz clearly lays

[58] Those factors are the ***Moral Law***, ***Heaven***, ***Earth***, ***Commander***, ***Method and Discipline***. See GILES, Lionel: **Sun Tzu on the art of war. The oldest military treatise in the world,** Leicester, Allandale Online Publishing, 2000, p.1. Accessed on 7th of Septembre 2019 at 18h24 from the link https://sites.ualberta.ca/~enoch/Readings/The_Art_Of_War.pdf.
[59] AMES T., Roger: **Sun Tzu: the art of warfare, *Op. Cit.***, p.81
[60] AMES T., Roger: **Sun Tzu: the art of warfare, *Ibid***, p.59
[61] HOWARD Michael, PARET Peter (ed.): **Carl Von CLAUSEWITZ: On war**, ***Op. Cit.,*** p.75

the foundation of his theory of coercion[62] when he argues that *since war is not an act of senseless passion but is controlled by its political object, the value of this object must determine the sacrifices to be made for it in magnitude and also in duration. Once the expenditure of effort exceeds the value of the political object, the object must be renounced, and peace must follow*.[63]

Indeed, it is important to recall that coercion is based on the cost-benefit dyad. Therefore, all actions initiated by a State, or an army must follow the rational scheme. Regarding Clausewitz, the previously mentioned paragraph contains the basic elements of coercive action. Among these, there is the purpose of the war (the political object), which then determines the proportional conditions of sacrifices to be borne (in terms of magnitude and duration). Finally, the threshold from which the assault must be repealed (when the expenditure exceeds the value or interest of the political object). The following diagram clearly illustrates this analysis.

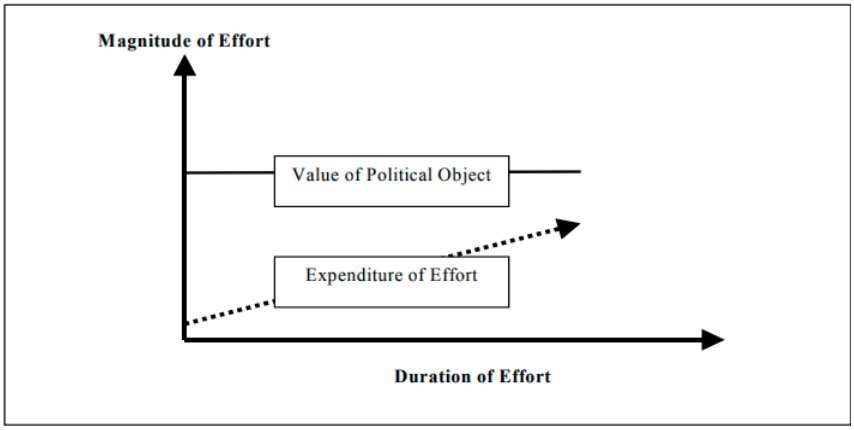

Figure 1: Clausewitzian compellence model from Micheal T. Plehn[64]

Although Clausewitz does not provide a policy-oriented model of coercion, he enumerates three types of coercion similar to those developed by Thomas Schelling or Robert Pape. These include risk-based coercion, punishment-based coercion and denial-based coercion. With regards to risk-based coercion (Schelling), Clausewitz argues that *when we attack the enemy, it is one thing if we mean our first operation to be*

[62] PLEHN T., Micheal: **The sharpest sword: Compellence, Clausewitz, and Counterinsurgency,** Report, Alabama, Air Force Fellows (SDE), Air University, 2005, p.16
[63] HOWARD Michael, PARET Peter (ed.): **Carl Von CLAUSEWITZ: On war**, ***Ibid.,*** p.92
[64] PLEHN T., Micheal: **The sharpest sword: Compellence, Clausewitz, and Counterinsurgency*, Op. Cit.,*** p.17

followed by others until all resistance has been broken; it is quite another if our aim is only to obtain a single victory, in order to make the enemy insecure, to impress our greater strength upon him, and to give him doubts about his future.[65] Regarding punishment-based coercion, he recommends that [one should] *give priority to operations that will increase the enemy's suffering.*[66] Whereas denial-based coercion (Robert Pape) will consist of *wearing down the enemy.*[67] However, these different aspects of coercion do not overshadow the Clausewitzian perception of war as a zero-sum interaction. Clausewitz's work has had a great influence on the modern theorists of coercion, among whom, first and foremost, Thomas Schelling.

2.1.2.1.3 Thomas Schelling

Thomas Schelling's work has substantially improved the study of conflict and cooperation through game theory. He developed a theoretical model of coercion by applying the theoretical models of game theory to foreign policy. Although he does not admit having been influenced by Clausewitz, as previously noted, it is undeniable that there are similarities between these two great theoreticians. For instance, just like Clausewitz, Schelling's theoretical model of coercion is rooted in a rational assumption. As he argues, *the threat of pure damage will not work against an unmanned vehicle.*[68] In addition, both theoreticians rely on an abstract deductive model. However, there are also many differences between them. Before dwelling on these differences, it is important to analyze the theoretical core of Thomas Schelling's model of coercion. In the first pages of his classic *Arms and Influence*, he first recalls the classical functions of force (*repel and expel, penetrate and occupy, seize, exterminate, disarm*) and then reveals a subtle but no less effective function of the force: *the power to hurt*. Unlike conventional functions, which primarily have an essentialist view of the adversary, the power to hurt is an existentialist one; In other words, it aims at targeting the adversary's interests.

By targeting the interests of the opponent, which is what he treasures, the power to hurt appears to be a bargaining leverage. Indeed, it compels the adversary to weigh the advantages or disadvantages of his compliance with the coercer's demands. The subsequent latent violence virtually creates an interaction between the two protagonists. By **complying** with the coercer's request, the target makes **concessions**, hence shifting from his original stance regarding the bone of contention. But more importantly, he is **rewarded** through the lifting of the threats he was subject to initially. In this regard, the power to hurt is effectively a bargaining power. *The power to hurt is bargaining power. To exploit it is diplomacy - vicious diplomacy, but diplomacy,* Schelling

[65] HOWARD Michael, PARET Peter (ed.): **Carl Von CLAUSEWITZ: On war**, ***Op. Cit.,*** p.92
[66] HOWARD Michael, PARET Peter (ed.): **Carl Von CLAUSEWITZ: On war**, ***Ibid.,*** p.93
[67] HOWARD Michael, PARET Peter (ed.): **Carl Von CLAUSEWITZ: On war**, ***Ibid.,*** p.93
[68] SCHELLING, Thomas: **Arms and influence**, Connecticut, Yale University, 2008, p.5

argues.[69] By asserting that *[war] appears to be, and threatens to be, not so much a contest of military strength as a bargaining process — dirty, extortionate, and often quite reluctant bargaining on one side or both — nevertheless a bargaining process,*[70] Schelling distant himself from Sun Tzu and Clausewitz's argument that war is a zero-sum game. Nonetheless, Schelling seems to contradict himself when he declares that *with sufficient military force that a country may not need to negotiate.* Schelling describes the act through which an opponent complies with one's demand as compellence.

Compellence appears to be a more difficult strategy to implement than deterrence, for it's about stopping or undoing the course of actions carried out by the target. Nevertheless, a practical solution that Schelling recommends is substantial prior knowledge of the adversary. As he puts it, *to exploit a capacity for hurting and inflicting damage, one needs to know what an adversary treasures and what scares him.*[71] Therefore, it is the risk of losing one's valuable goods or assets that will induce the adversary to comply with the demands of the coercer. After all, "it is not alone the threat that is effective – the threat of pain or loss if he fails to comply – but the corresponding assurance, possibly an implicit one, that he can avoid the pain or loss if he does comply."[72] According to Schelling, coercion can only be effective if the coercer clearly demonstrates his resolve to effectively carry out the initial threat if the adversary does not behave accordingly. This resolve must be clearly communicated to the adversary and can be implemented through actions such as the mobilization of military troops etc. Schelling logically warns that *if the commitment is ill defined and ambiguous – if we leave ourselves loopholes through which to exit – our opponent will expect us to be under strong temptation to make a graceful exit.*[73] Schelling's work has had a significant impact on coercion studies, notwithstanding the limitations identified by his spiritual heirs.

Thomas Schelling's inputs to the improvement of coercion studies is undeniable both from a theoretical and a practical (policy) point of view. From a policy perspective, by emphasizing the transactional function of war, Thomas Schelling made an important paradigmatic shift. Indeed, until the publication of the classic book *Arms and Influence*, strategic studies analyzed war only from the Clausewitzian perspective. That is to say, an apprehension of [war] as the art of making an adversary renounce. Thanks to Schelling, there has been a growing interest in the bargaining approach to war and coercion, anchored in the ability to inflict (unacceptable) damage. In addition, his research served as a groundwork for Alexander Georges' work on coercive diplomacy.

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[69] SCHELLING, Thomas: **Arms and influence, *Op. Cit.***, p.2
[70] SCHELLING, Thomas: **Arms and influence**, ***Ibid.***, p.7
[71] SCHELLING, Thomas: **Arms and influence**, ***Ibid***, p.3
[72] SCHELLING, Thomas: **Arms and influence**, ***Ibid.***, p.4
[73] SCHELLING, Thomas: **Arms and influence**, ***Ibid.***, p.48

From a theoretical point of view, Schelling has deepened studies on game theory by laying the basis of the notion of the sub-game perfect equilibrium.[74]

Irrespective of the previous contributions, Schelling's ideas have certain limits. First, Thomas Schelling's model is essentially abstract; in other words, it cannot be easily adapted in empirical research. Moreover, the omnipresence of the rational postulate in the ideas of Thomas Schelling does not provide sufficient information on the motivations behind decision-maker actions. Also, more subjective perspectives like psychology are important in the understanding of foreign policy. Notwithstanding these criticisms, Thomas Schelling is the *quintessential author* to read when it comes to coercion studies. He has many inheritors, among whom Alexander George and William Simons.

2.1.2.2 General theories of diplomatic coercion

2.1.2.2.1 Alexander George and William Simons

Motivated by the desire to make clear and practical recommendations to policymakers regarding the effectiveness of coercive diplomacy, A. George and W. Simons relied on an inductive approach and reached their theoretical conclusions based on historical cases in which coercive diplomacy had been used. In this regard, they first analyzed (1971) three historical cases in which coercive diplomacy had been used: the Laos crisis (1961), the Cuban Missile Crisis (1962) and the North Vietnam Crisis (1965). To strengthen their theoretical model of coercion, they later (1994) added four cases: Japan (1941), Nicaragua (1980), Libya (1986) and Iraq (1990). After studying the previous cases, A. George proposed a theoretical model of coercive diplomacy based on the rationality of the actors involved. This model is mainly divided into two main groups: the contextual variables during the implementation of the coercive strategy, and the necessary operational measures for an effective coercive strategy.

2.1.2.2.1.1 The contextual variables.

Peter Viggo Jakobsen argues that "contextual variables should be used initially to decide whether coercive diplomacy is a viable strategy in a given crisis. (Indeed,) the success variables enter the decision-making process in the second stage only if analysis of the contextual variables suggests that a coercive diplomacy strategy may work."[75] Alexander George also recognized the importance of considering the unique characteristics of each individual crisis, although his main objective was to establish policy recommendations applicable to policymakers. Paraphrasing George, Jack Levy

[74] AVINASH, Dixit, **Thomas Schelling's contributions to game theory**, The Scandinavian Journal of Economics, Vol. 108, N.2, June 2006, p.218.
[75] JAKOBSEN V., Peter, ***Coercive diplomacy, Op. Cit.,*** p.245

emphasizes that *coercive diplomacy is highly context dependent. Its effectiveness is a function of the type of provocation, the magnitude and depth of the conflict of interests, actors' images of the destructiveness of war, the degree of time urgency, the presence or absence of allies on either side, the strength and effectiveness of leadership, and the desired postcrisis relationship with the adversary*.[76]

Therefore, the policymaker should set and adapt the implementation of the coercive strategy according to the specific features he/she has to deal with. The following are the contextual variables[77] he needs to consider: first, ***the international strategic environment,*** second, ***the nature of the provocation of the target state***. The coercive measures adopted by the coercer depend on the nature or type of provocation of the adversary. As a result, some problematic behaviors can be more easily addressed than others. For example, the effective invasion of the territory of one State by another State *(fait accompli)* is more difficult to address than the beginning of the invasion process. This was particularly illustrated by the Gulf War, which was a failure of *type B* coercive diplomacy.

The third contextual variable to consider is ***the perception of war***. Indeed, the sensibility of a State with regard to war affects its readiness to resort to coercive measures or not and can lead him to a more conciliatory approach. In this regard, A. George argues that *had Saddam Hussein perceived "the mother of all battles" in images even approaching the destruction levied on Iraq's forces and infrastructure, he could have more seriously considered the negotiating initiatives advanced by others in the international coalition arrayed against him*.[78] The fourth contextual variable refers to the possibility for the coercer to rely on ***unilateral or multilateral coercive diplomacy*** (coalition). According to Alexander George, multilateral diplomatic coercion is more difficult to implement despite the level of pressure on the target state. The challenges of such an initiative depend particularly on the resources to be mobilized, the unity and the *raison d'être* of the coalition, which are fragile given the generally conflicting interests of the coalition members.

The fifth contextual variable is the ***isolation of the opponent.*** The isolation of the adversary is vital for the success of coercive diplomacy. Indeed, an isolated adversary is more exposed and vulnerable to coercive measures and is more likely to compromise. As Timothy Crawford demonstrates, the Soviet compellence strategy against the Japanese during the Mongolia-Manchuria border war had been effective thanks to the

[76] LEVY S., Jack, **Deterrence and coercive diplomacy: The contributions of Alexander George**, Political Psychology, 2008, Vol. 29, N.4, p.540
[77] CALDWELL, Dan: **Alexander L. George: A pioneer in Political and Social Sciences,** Cham, Springer, 2019, p.230 (1st Ed.)
[78] GEORGE, Alexander: **The limits of coercive diplomacy, *Op. Cit.,*** p.273

Nazi-Soviet pact,[79] which deprived Japan of the military and political support it was expecting from Germany. Notwithstanding their importance, the previous contextual variables are mainly theoretically rooted. It is, therefore, important to analyze the practical conditions for an effective coercive strategy.

2.1.2.2.1.2 The operational conditions for an effective coercive strategy.

For a coercive strategy to be effective, Alexander George recommends four major tasks. The **first** consists of ***filling in the missing boxes*****.** In other words, the decision-maker should first answer the following four questions:

What do we ask the opponent? The answer to this question involves the balance of interests and motivation of the protagonists.

Should we and how could we create a sense of urgency for compliance with our request? This approach entails risks and is achievable thanks to a deadline for compliance, warnings and the deployment of military troops. This step is as strategic as it highlights the issue of credibility through the communication of intentions made by both statements and actions undertaken.

What could be the punishment in case of non-compliance, and how make it powerful and credible? The risk of punishment can be communicated through military or politico-diplomatic actions.

Should we offer incentives, and if so, which carrot should we couple with the stick? Potential incentives can take many forms but must meet the expectations of the adversary.

The second task refers to the need to choose the appropriate coercive variant considering the specific case. According to Alexander George, there are three variants of coercive diplomacy depending on the manipulation of the variables underpinned by the previous questions. These variants are the **"classic ultimatum"**, **"the tacit ultimatum",** the **"gradual turning of the screw,"** and **"the try and see."**[80] Among the components of the classic ultimatum, we have *the demand, a deadline to comply,* and *the threat of punishment for non-compliance*. However, as previously analyzed, Alexander George warned about the limits of the "ultimatum" variant of coercive diplomacy.[81]

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[79] CRAWFORD W., Timothy, **The strategy of coercive isolation in US security policy,** RSIS working paper, Singapore, 2013, p.13
[80] GEORGE Alexander and SIMONS Williams (Eds): **The limits of coercive diplomacy, *Op. Cit.,*** p.18
[81] GEORGE L., Alexander: **Forceful persuasion: coercive diplomacy as an alternative to war, *Op. Cit.*,** p.7

Unlike the classic ultimatum, the tacit ultimatum does not contain a deadline for the opponent to comply with the request. Regarding the gradual turning of the screw, it refers to a gradual or progressive increase of the pressure on the opponent without creating a sense of urgency (this is the main difference with the classic ultimatum). The "try and see" variant is simply about formulating a request and observing the opponent's reaction. This conceptual clarification is important because it also clarifies the objectives or intentions of the coercing State.

The third task consists of replacing the rational premise of interactions with the coerce with an empirical-based analysis of the behavior. (This is a major shift from Schelling's approach.) Indeed, leaders and decision-makers do not always behave according to rationality patterns. Other more subjective and versatile variables, such as psychology and information processing, can explain leaders' decisions in specific circumstances. Moreover, theoretical tools such as the operational code and political and cultural psychology should be considered in the explanation of political decisions. **The fourth task** recommends emphasizing the contextual realities of the case study. Indeed, each case study has very specific characteristics that impose an equally appropriate strategy. Therefore, an analogue transposition of the strategies of a case study on another case is likely to lead to the failure of the coercive strategy. As Alexander George argues, "the abstract model of coercive diplomacy spins out its general logic without reference to the characteristics of any particular situation. In this sense, the abstract model is context-free. But in transforming the model into a variant of the strategy to be used in actual situation, the policy maker must pay close attention to whether and how the logic associated with successful coercive diplomacy can be achieved in that particular set of circumstances."[82]

To secure the success of a coercive diplomacy strategy, the coercer must act under certain conditions. These include **clarity of purpose, high motivation, an asymmetry of motivation, a sense of urgency, a strong leadership.** In addition, there should be **domestic and international support, the fear of escalation by the target** and **clarity of the terms of conflict resolution.** The clarity of the intended purpose is important as it facilitates the choice of the instruments or response options; Furthermore, the clarity of purpose also indicates to the adversary the relevance of the aim pursued by the coercing State. After all, *the victim has to know what is wanted, and he may have to be assured of what is not wanted*, as Schelling rightly argues.[83] Not to mention that fuzzy goals reduce the chances of a successful negotiation. The strength of the motivation helps to secure strong domestic support for an effective coercive strategy. In other words, the challenge is to convince the domestic audience to bear the political cost of

[82] GEORGE, Alexander, **The limits of coercive diplomacy, *Op. Cit.,*** p.20
[83] SCHELLING, Thomas**: Arms and influence, *Op. Cit.,*** p.4

the diplomatic strategy, which makes the strategy more credible in the eyes of the adversary.

The asymmetry of motivation puts at stake the perception of the determination or resolve of the protagonists. According to Alexander George, a coercive strategy is more likely to succeed when the asymmetry of perception favors the coercing state over his adversary. In other words, it consists of making the adversary believe that the determination of the coercer is greater than his willingness to resist. The asymmetry of motivation is closely linked to the asymmetry of interests. The side whose interests are more important will have a greater willingness to achieve its objectives. Consequently, we can modify the asymmetry of motivation either by the nature of the request made (which must not jeopardize the vital interests of the adversary) or by the nature of the incentives formulated (which will reduce the propensity of the adversary to resist). Just like the asymmetry of motivation, the **sense of urgency** also puts at stake the opponent's perception. By creating a sense of urgency, the coercing state creates an urgency of compliance in the target minds. However, this approach carries risks, as we saw earlier with the variant of the ultimatum.

The presence of a **strong leadership** in the coercing state is another condition for a successful coercive strategy is. Leadership, especially at the highest level of government, makes it possible to signal the importance of the issue for the coercing state to the adversary. Subsequently, the management of the political crisis at a lower bureaucratic scale in the government would signal to the adversary lesser importance is given to the issue, which would not motivate him to respond favorably to the demand. According to Alexander George, the nature of the demands made by President Kennedy during the Cuban missile crisis, and especially his personal involvement in the deployment of US military and missile forces, were decisive in the outcome of the crisis.

In addition, domestic and international supports are necessary for the success of a coercive strategy. For example, the support, or rather the neutrality of the American Congress in the political crisis of Laos, was instrumental in the outcome of the crisis of Laos. The same was true in the Cuban Missile Crisis, during which American public opinion and congressional consensus contributed greatly to Kennedy's foreign policy success. In this regard, Kenneth Schultz also made a substantial contribution to the analysis of the impact of domestic support (in democratic states) on successful coercive strategies against an adversary.[84] According to him, political decisions in liberal democracies are generally the result of the competition of internal political coalitions. Consequently, the domestic consensus increases the intensity of the coercive strategy

[84] SCHULTZ, Kenneth: **Democracy and coercive diplomacy,** Cambridge University Press, Cambridge, 2001, 324 pages.

and hence the credibility of the coercing state. This analysis is close to the analysis of Robert Putnam's "win-set."[85] In terms of international support, Alexander George maintains that the lack of European support, for example, contributed to the failure of President Reagan's coercive diplomacy against Qaddafi's Libya.

Finally, the non-acceptance of the risk of escalation and the clarity of the terms of resolution of the political crisis play a non-negligible role in the successful implementation of a coercive strategy. According to Alexander George, the impact of coercive diplomacy is enhanced if the initial actions and communications directed against the adversary arouse his fear of an escalation to circumstances less acceptable than those promised by accession to the coercing power's demand.[86] In other words, the main objective is to force the adversary to comply with the demands of the adversary. Otherwise, he will expose himself to even greater damage. A coercive preventive measure will therefore have the effect of influencing the opponent's strategic calculations by leading him to favor his interests (benefits) over costs or losses. The clarity of the terms related to the resolution of the political crisis is decisive as it reassures the adversary of the impossibility of the coercing State to make additional demands to those which were formulated during the beginning of the crisis. It is, therefore, a confidence-building measure granted to the target by the coercing state, which must which most bind himself with limited and realistic objectives. There is a great academic consensus over the prominence of Alexander George's work in coercive diplomacy studies, despite a few limits to his work.

Alexander George's contribution to the evolution of coercion studies is immense. First, by developing an operational theoretical model, George improves Thomas Schelling's model, which was very abstract. Hence, George's model is more policy-oriented than Thomas Schelling's. In addition, his theoretical conclusions are strengthened by his inductive approach, which relies on a historical and structured focus analysis of the cases where coercion was used. George also made a significant contribution to coercion studies with the addition of the incentive or inducement variable. Incentives are important because they reflect more the interactive perspective of coercion previously discussed by Thomas Schelling.

Notwithstanding these strengths, George's work also has some weaknesses. First, George's model does not substantially analyze the notion of "coalitional coercion." In fact, George only highlighted the challenges that surround this specific form of coercion.

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[85] A win-set designates the likelihood of an international agreement to be accepted or ratified by the domestic constituencies of a State. Read PUTNAM, Robert, **Diplomacy and domestic politics: The logic of two-level games, *Op. Cit.***, p.437.

[86] GEORGE, Alexander and SIMONS E., William: **The limits of coercive diplomacy, *Op. Cit.,*** p.285

In this regard, Peter Jakobsen Viggo criticizes the fact that "George and Simons limit themselves to observing that coalitional use of coercive diplomacy is harder than unilateral use, a claim that other scholars question."[87] Jakobsen also points out the difficulties encountered during the implementation of three important variables in George's model (the asymmetry of motivation, the opponent's fear of unacceptable escalation and urgency for compliance). Rob de Wijk also criticizes the fact that both George and Schelling's theoretical models are essentially Cold War based.[88] In this respect, Jakobsen rightly developed a post-Cold War based theoretical model of coercion.

2.1.2.2.2 Peter Jakobsen Viggo

Peter Viggo Jakobsen's work in coercion studies is also remarkable. Influenced by renowned theoreticians such as T. Schelling, A. George and Lawrence Freedman, he developed a theoretical model of coercion aimed at improving George's theory: this is the *ideal policy.*[89] Jakobsen first noted a growing interest in coercive diplomacy by policymakers and scholars after the Cold War. According to him, this can be explained by the substantial change in the international strategic environment (implosion of the Soviet Union and resurgence of failed states). Moreover, Western powers resort more and more to coercive diplomacy as it is a cheaper strategy when successfully implemented, but politically expensive in case of failure. Paradoxically, the use of coercive diplomacy has poor records. As Jakobsen noted, *what is surprising about the Western use of coercive diplomacy against military aggressors after the Cold War is that the results to date have been poor.*[90] Motivated by the West repetitive failed coercive diplomacy campaigns, he developed a theoretical model based on three main questions; ***why have the results (of coercive diplomacy) been so poor? Is coercive diplomacy likely to be used more effectively by the Western powers in the future? Does the need for collective action and effective coercive diplomacy?***[91]

According to Jakobsen, the ideal policy contains four main variables: a credible threat of the use of force, a deadline to comply with the demand, guarantees against future demands and finally, incentives (carrots) for compliance. An important condition for the effective implementation of the ideal policy is the coercer's willingness to threaten and even resort to force. This willingness to threaten depends on several variables: the nature of the interests at stake, the prospect of military success and the level of

[87] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War. A challenge for theory and practice,** London, Palgrave Macmillan, 1998, p.21
[88] DE WIJK, Rob: **The art of military coercion.** ***Op. Cit.,*** p.103
[89] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War.,** ***Ibid.,*** 229 pages.
[90] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War,** ***Ibid,*** p.1
[91] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War,** ***Ibid,*** p.2

domestic support. Before thoroughly analyzing each of the above variables, we should emphasize the importance of the following factors, which also play a crucial role in the willingness to threaten or use force effectively; Those factors are interests-driven behavior, government-driven behavior and domestic-driven behavior, which will also be discussed later in the chapter. By incorporating the above variables, it is obvious that the aim of the ideal policy is to build "a theoretical framework that can provide substantial explanations of the success and failure factors of coercive diplomacy."[92] In this regard, Jakobsen was inspired by the theoretical models of his predecessors to develop a theoretical model that meets conventional methodological and epistemological requirements. In other words, his theoretical framework had to be based on empirical cases, generate verifiable hypotheses, and be parsimonious.[93]

According to Jakobsen, States are more likely to implement the ideal policy under three major conditions. First, their actions will be driven by the nature of the interests threatened by the action of the aggressor. Based on the realist school of IR, precisely the motivations behind the action of States in international affairs, (survival and prestige), Jakobsen identified four main types of interests: vital interests, strategic interests, interests of stability and finally, moral/ideological interests. Vital interests refer to the existential threats against a State, such as the defense of the homeland against aggressors (terrorism, secession etc.), while strategic interests refer to the States' power assets like the economy with access to raw materials, for example. Interests of stability are related to security issues in the neighborhood of the state, as the main goal here is to avoid a *domino effect* on a state in case of instability in its neighbors.

Moral interests refer to "the protection of values and ideas concerning the international order. These interests are very similar to the soft power developed by Joseph Nye, although the classification made by Jakobsen does not take into account the ***reputational parameters***" developed by Larry Berman.[94] Jakobsen dismisses vital interests in the formulation of the ideal policy not only because of the low risk that one State will attack a stronger one, but also because he is only interested in "acts of aggression against a third party." Conversely, other types of interest are relevant only under certain conditions: for example, when strategic interests are highly threatened compared to moral interests. The chances of success of a military expedition are the second factor likely to induce a state to resort to the ideal policy.

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[92] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Op. Cit.,*** p.25
[93] Jack LEVY, quoted by Jakobsen in **Western use of coercive diplomacy after the Cold War, *Ibid.,*** p.26
[94] Larry Berman cited by Jakobsen in **Western use of coercive diplomacy after the Cold War, *Op. Cit.,*** p.37

Jakobsen argues that "State leaders are most likely to use force if the chance of success is perceived as high and vice versa."[95] In other words, the propensity for a threat or effective use of force depends on the initial calculations of the State regarding the actual or perceived chances of such an initiative. Jakobsen listed four important factors based upon which states assessed their chances of military success. Those are the ***balance of power*** between the actors, a third-party intervention, and especially a major international Power. Then the vulnerability of the target to the military coercion of the coercer. Regarding the balance of power, the coercive State should have a relative or absolute military advantage compared to its opponent, particularly in terms of military logistics and expertise. Although the number of troops is important, the technological differential substantially affects the outcome of a battle. The intervention of a third international power could change the balance of power between the two actors. This variable is very close to the ***isolation of the adversary*** previously proposed by A. George.

Finally, the vulnerability of the adversary refers to the hurting capacity of the military strategy of the coercive state. In this regard, it is important for the coercer to challenge the aggressor in conventional warfare because if it is asymmetric warfare, like a war of attrition, the chances for the coercer to inflict unacceptable damage to the opponent are reduced. Consequently, the relevance of the ideal policy will be diminished for at least two reasons: first, because the "success" of the ideal policy depends on the ability of a state to formulate a credible threat supported by the ability to inflict unacceptable damage quickly and easily to a target.[96] Second, the target's use of an unconventional war strategy would reverse roles, and the coercive would paradoxically suffer counter-coercion from the target, which would lengthen the duration of the war. As Jakobsen argues, "the probability of military success is uncertain when it is perceived to be an affair. [...] It only takes an adversary capable of executing an effective guerrilla strategy in a favored field to ensure that victory or lengthy counter-insurgency campaign."[97] The fourth factor, the balance of abilities, is almost like the power balance.

The third parameter likely to induce a state to resort to the ideal policy is international or domestic political support.[98] Political support affects the propensity for threat or effective use of force in three ways. First, political support may constrain or limit the bellicose tendencies of a government, as it had been the case with US presidents

[95] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Op. Cit.,*** p.39
[96] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Ibid.,*** p.39
[97] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Ibid.,*** p.40
[98] Regarding the influence of domestic politics on war or foreign policy, read LEVY S., Jack, **Domestic politics and war,** the Journal of interdisciplinary history, Vol. 18, N.4, 1988, 22 pages. Read also FEARON D., James, **Domestic politics, foreign policy, and theories of International Relations,** Annual review of political science, 1998, 25 pages.

Woodrow Wilson and Franklin D. Roosevelt. Second, domestic political support may also force a state to resort to force regardless of the will of its leaders. For example, Ernest May argues that *it was because of domestic pressure that President William McKinley was 'led unwillingly toward a war (against the Spanish in 1898) that he did not want for a cause in which he did not believe.'* [99] Finally, domestic support can also be used for political or electoral purposes by policymakers.

The operationalization of the "domestic political variable" should be evaluated based on the degree of political consensus expressed by the different social groups (interest groups, bureaucratic organizations etc.) regarding the use of coercive diplomacy, Jakobsen argues. Thus, "domestic support will be coded as high when the use of coercive diplomacy enjoys support from most segments of society. It will be coded as a medium when divisions among the different groups exist and use of coercive diplomacy is a topic of heated debate."[100] Jakobsen also developed three "patterns most likely to create the will to threaten force." Firstly, an interest-driven pattern, then a government-driven pattern and a domestic pressure-driven pattern.

The interest-based behavior is rooted in the idea that the government is willing to run huge risks when the strategic interests of the state are threatened. This variant is important because the interest at stake is one of the main priorities of the government. Consequently, regardless of the real and perceived chances of success, the government will be inclined to resort to the threat or actual use of force. Moreover, political support is likely to be high when strategic interests are at stake, by triggering a rally-around-the-flag effect. As stated by Alan J. Lambert, "people are motivated to see the world as a secure/predictable place, and all suggest that a salient threat—such as the 9/11 attacks—should lead people to affiliate themselves with the American president and with other cultural institutions that offer an actual and/or symbolic sense of security and safety."[101]

Second, the government-driven pattern is based on the idea that the interests in stability generally motivate governments to threaten or use force. However, as Jakobsen argues, "the prospect of military success must be high for this to happen as casualties are hard to justify when the interest is medium or lower."[102] Third, domestic pressure-based behavior emphasizes the issues of legitimization, and the risks involved, which will limit the government in its will to threaten or resort to force when moral interests are put at stake unless public opinion pushes for such action and the

[99] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Ibid.,*** p.42
[100] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Ibid.,*** p.42
[101] LAMBERT J. Alan et al, ***Threat, politics, and attitudes: toward a greater understanding of rally-'round-the flag effects, Op. Cit.***, p.2
[102] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Op. Cit.,*** p.43

chances of success are high. In order to overcome one of the weaknesses he observed in relation to A. George's theoretical model, Jakobsen, analyzed the impact of collective actions on the application of the ideal policy.

According to Jakobsen, one of the main challenges of collective action is the building and stability of consensus on the "goals and means within a coalition employing coercive diplomacy."[103] The notion of consensus here is similar to Thomas Schelling's focal point. Generally, coercive diplomacy is used to restore or guarantee the stability of the international system. However, when relying on multilateral support for its coercive strategy, the coercer usually faces many obstacles. Among these is the public good issue. The public good issue highlights the distribution of costs (political, and financial) between actors. Given that the peace and stability achieved by coercive diplomacy are politically costly, many countries generally refrain from taking the risks associated with this strategy but benefit from coercive diplomacy if it's successfully implemented. On the other hand, the role of international organizations is problematic during the implementation of coercive diplomacy. Indeed, they can substantially reduce the military force expected by the coercer, but paradoxically increase the credibility of the threat and the resolve of the coercing state to the target. All the preceding components of Jakobsen's theoretical model have had a significant contribution to coercion studies, notwithstanding their limitations.

The ideal policy of Jakobsen considerably deepened the understanding of coercion. With his ideal policy, he proposed an improved theoretical model which could be useful for decision-makers. Indeed, he proposed an accurate model which contained fewer variables compared to George's. His model also contains operational and hence testable variables, which significantly reduce the risk of misinterpretation and miscalculation. From the academic perspective, Jakobsen used a structured-focused comparative model, which strengthens his theoretical conclusion concerning the successful implementation of the ideal policy in a coercive strategy. However, the *ideal policy* is too narrow, as it addresses only issues related to military aggression, explaining the importance he pays to strategic superiority. Furthermore, the *ideal policy* is a one-sided model, as it focused essentially, if not only on the coercer and neglects the features of the target. Jakobsen justified it by stressing on the difficulty of accessing the primary source of information from the target, especially authoritarian regimes. Bruce Jentleson and Christopher Whytock designed a model which fills the gap in Jakobsen's ideal policy model.

[103] JAKOBSEN V., Peter: **Western use of coercive diplomacy after the Cold War, *Ibid.,*** p.44

2.1.2.2.3 Bruce Jentleson and Christopher Whytock: "know your enemy."

Like Peter V. Jakobsen, Jentleson and Whytock tried to analyze the conducive conditions to the effective implementation of the coercive strategy. They developed a dynamic coercive theoretical model based on the Libyan case.[104] In other words, their model integrated both the features of the coercer and its target. This theoretical model contains five components: first, **proportionality, reciprocity, and credibility**, second, **limited objectives from the coercer**, then, **strong multilateral support** for coercive diplomacy, also, a consideration of the **target's weaknesses or vulnerabilities** and lastly, **positive inducements**. The first three variables focus on the coercer (the first set), while the remaining two variables focus on the target (the second set). The Libyan case is interesting as it analyzed coercive diplomacy applied in the context of WMD. As they declared, "as the strongest case of coercive diplomacy success since the 1962 Cuban missile crisis, the Libya case provides useful insights for more general propositions about the scope and limits of this balancing of force and diplomacy."[105]

Three spanned US administrations – which correspond to the three phases of the American coercive strategy – tried to address to security challenges posed by Gadhafi's Libya controversial international behavior. Ronald Reagan's administration was the first one to address the "Gadhafi issue." His coercive strategy relied heavily on sanctions and force,[106] while Bush (father) and Clinton's administration first years shifted toward a "more multilateral and sanctions-based strategy," and Bush (the Son) conducted secret direct negotiations initiated during Clinton's last year in office. Each of the previously mentioned strategy stroke specific outcomes with regards to the main goal of the US's Libya's foreign policy goals. Before analyzing the reasons for the success and failures of the coercive strategies implemented by each of the previous administrations, let us first dwell on the content of the coercion framework developed by Jentleson and Whytock.

For a coercive diplomacy strategy to work, Jentleson and Whytock advises that it should meet several criteria both from the coercer's perspective and the target'. Regarding the coercer, the strategy should meet the conditions of proportionality, reciprocity, and credibility. By **proportionality,** they mean the necessary match-up of means and ends. In other words, the coercer should adjust the coercive instruments to the nature of the demands. The demand here is the independent variable as it affects both the coercer

[104] JENTLESON W., Bruce and WHYTOCK A., Christopher, **Who "won" Libya? The force-diplomacy debate and its implications for theory and policy, *Op. Cit.***
[105] JENTLESON W., Bruce and WHYTOCK A., Christopher, **Who "won" Libya?, *Op. Cit.***, p.50
[106] The New York Times, **Executive order for sanctions against Libya**, January 8, 1986. Accessed from https://www.nytimes.com/1986/01/08/world/executive-order-for-sanctions-against-libya.html on the 13th of September 2019 at 18h05.

options and the target's perception. As the authors put it, *the more the coercer demands of the target, the higher the target's costs of compliance and the greater the need for the coercer's strategy to increase the costs of noncompliance and the benefits of compliance*.[107]

The **Reciprocity** variable highlights the issue of the timing between the coercer's incentives and the target's concession. Basically, it's a confidence-building pattern of action as it helps assess each actor's intentions. The coercer must not let the target believe that he can obtain the inducements without putting something on the table. Jentleson and Whytock described it in these words: "the balance lies in neither offering too little too late or for too much in return, nor offering too much too soon or for too little in return."[108] The last variable, **credibility**, stresses the necessity for the coercer to "convincingly conveys to the target state that non-cooperation has [painful] consequences,"[109] which will modify its strategic calculus and induce him to comply. The second set of variables stresses the target's features. In terms of the "target vulnerability", the authors recommend the coercer pay closer attention to the domestic constraints that can expose the target to the coercive strategy; those constraints are usually made of political (bureaucratic and public opinion) and economic conditions. Building on the regime survival assumption, the authors insist that knowing the target's vulnerability is important because it informs about the target's domestic cost/advantage of compliance or resistance.

One of the main added values of Jentleson's and Whytock's model is that it highlighted the necessity for the coercer to pay close attention to the features of the target. This will enable him to adjust the coercive strategy accordingly. This was a major flaw of Jakobsen's theoretical model of coercion. Also, they proposed testable variables which could be applied in other cases and hence strengthen their theoretical conclusions. However, their model falls under the binary model of cost/benefits, which does not always provide substantial answers regarding the international behavior of States. Adding the strategic and political culture of a State could also be quite useful in this regard. Based on all the previous analyses, we would rely on Jentleson's model of coercion. This choice is twofold. Firstly, it is so far the only coercive model applied in the domain of WMD after the Cold War. Additionally, it contains all the components of the previous model in the trinity of "proportionality, reciprocity and credibility." We will now analyze the relevance of some coercive strategies, beginning with coercive military strategies.

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[107] JENTLESON W., Bruce and WHYTOCK A., Christopher, **Who "won" Libya?, *Op. Cit.,*** p.51
[108] JENTLESON W., Bruce and WHYTOCK A., Christopher, **Who "won" Libya?, *Ibid.,*** p.52
[109] JENTLESON W., Bruce and WHYTOCK A., Christopher, **Who "won" Libya?, *Ibid.,*** p.52

2.1.2.3 Theories of general coercion based on the typology of coercive strategies.

2.1.2.3.1 Military-based coercion

2.1.2.3.1.1 Rob de Wijk

According to Rob de Wijk, the success of a coercion campaign or policy depends on a good strategy which refers to the *link between political objectives and the military means available.*[110] Hence, the key to the success of a military coercion campaign lies in the strategy implemented by the decision-maker, be he or she a civilian or military authority. Rob de Wijk stresses that decision-makers should consider two main variables when crafting their coercive military campaign: their political room and military capabilities on the one hand, and the characteristics of the target on the second hand. The issue of the available political room is twofold: domestic and international constraints.

Regarding the domestic constraints, Rob de Wijk shares Daniel Byman and Matthew Waxman's points of view regarding the challenge of liberal democracies, notably in terms of public support for the military campaign. Because political actions in the West are essentially rooted in issues like legitimacy, accountancy etc., decision-makers are therefore compelled to obtain the necessary political support for their political goals. Public support can come in many forms: parliaments, media, or surveys. Coercive strategies lacking public support are likely to fail, for *if the population no longer supports the cause, the intervention will lose legitimacy* [111] and ultimately fail.

Regarding international support, coercing States, especially Western Powers, tend to rely on international coalitions to increase the legitimacy and credibility of their actions vis-à- vis the target. Despite the advantages of this strategy, coalitional coercion policies also pose challenges that should be addressed. One of those, and certainly not the least, is the stake of unity in the coalition. States usually accept to join the effort to achieve a specific goal against the backdrop of shared values or common interests, which affect or shape their political culture. While there is no doubt regarding the strength of the transatlantic relation, irrespective of the actions of the US administration, European and American do not share a common political and military culture. As Rob de Wijk noted, "the Americans put emphasis on the defense of interests, while most Europeans emphasize the promotion of values and the strengthening of the international rule of law."[112] Subsequently, European might be less eager to use force than their American

[110] DE WIJK, Rob: **The art of military coercion.** ***Op. Cit.,*** p.20 Strategy usually encompasses: the interests at stake, the knowledge of the adversary's motivations and expected risks.
[111] DE WIJK, Rob: **The art of military coercion.** ***Ibid.,*** p.313
[112] DE WIJK, Rob: **The art of military coercion.** ***Ibid.,*** p.298

partners. Moreover, the use of force is even more controversial in our post-Cold War era, which witnesses a security paradigm shift with the rise of non-classic warfare[113] and the growing role of Great Powers like China which usually oppose foreign interventions in domestic affairs of other States.

2.1.2.3.1.1.1 The successful application of force.

Rob de Wijk identified three main conditions regarding the successful application of force. First, in light of Sun Tzu's precept *he who knows the enemy and himself will never in a hundred battles be at risk,*[114] he recommends focusing on the target. More precisely, he encourages the decision-maker to craft a *denial strategy* which aims at *reducing the target's ability to carry out its undesired course of action.* Second, the coercer should set realistic goals or objectives and, finally, the readiness of the coercer to bear the consequences of its decision to use force.[115] The last condition is closely related to the nature of the interest at stake. The higher the interest, the stronger the motivation of the target, who would easily afford to take risks, thus increasing the probability of its success.

Furthermore, the coercer should follow as much as possible the principles of military operations like *credibility, flexibility, legitimacy, unity in effort, initiative, simplicity or concentration.*[116] Another important parameter to consider is the timing of the intervention. According to Rob de Wijk, the timing of the intervention is crucial on the battlefield as it sends signals to the adversary about the credibility and resolve of the coercer. Indeed, a late response of the coercer to the controversial behavior of the adversary due to bureaucratic decision-making issues in the coalition approach could put in jeopardy the principles of initiative or unity in efforts. Lastly, *successful interventions are only possible when a dispute has not (yet) turned into armed conflict*.[117]

2.1.2.3.1.1.2 The operational challenges to the implementation of a coercive military strategy.

As we previously noted, Western Powers generally prefer to implement their coercive military strategies through coalition. Yet, the implementation of multilateral-based coercive military campaigns presents certain challenges during the operational phase of the strategy. The first one is the clarity of the mandate, which will serve as the main

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[113] SCHNEIDER R., Barry and GRINTER E., Lawrence: **Battlefield of the future: 21st Century warfare Issues - Air theory for the 21st Century, cyberwar, biological weapons and germ warfare, new-era warfare,** Alabama, Air University Press, 1998, 279 pages.
[114] AMES T., Roger: **Sun Tzu: the art of warfare,** ***Op. Cit.***, p.81
[115] DE WIJK, Rob: **The art of military coercion,** ***Op. Cit.,*** p.301
[116] DE WIJK, Rob: **The art of military coercion,** ***Ibid.,*** p.304
[117] DE WIJK, Rob: **The art of military coercion,** ***Ibid.,*** p.305

referent or framework for the military campaign. The mandate refers to *the authority given to an elected group of people, such as a government, to perform an action or govern a country.*[118] Hence a mandate encompasses, first and foremost mission to fulfil or an objective to attain. Yet sometimes, coalitions lack a clear mandate and even when there's a clear mandate, States don't always pursue the same interests in a coalition they agreed to be part of. Consequently, the coercive strategy is likely to fail because, as Rob de Wijk argues, "unclear mandates will jeopardize three important principles of military operations: objective, credibility and legitimacy."[119]

Another main challenge to overcome regarding the operational conditions of military coercion is coalition warfare. Coalition warfare poses a double challenge to the success of a military coalition. On the first hand, the issue over **interoperability** and on the second hand, the issue over **unity in command.** Regeena Kingsley defines the unity of command as *the existence of a sole overarching source of authority to direct, control and coordinate all military forces participating in an operation.*[120] It *supports the national strategic direction through close coordination with the other instruments of national power.*[121] The unity of command is important in many regards; It facilitates the success of the coercive strategy during the implementation phase through the coordination of the strategic actions of the entire coalition. The inconsistency in the unity of command can undermine military coercion as it can lead coalition members to pursue different, if not conflicting, goals. Furthermore, a lack of unity of command can lessen the credibility of the coercive signals sent to the target, which can ultimately use this tactical advantage against the coercive coalition. Interoperability refers to *the ability of different military organizations to conduct joint operations*.[122]

2.1.2.3.1.1.3 The political preconditions to a military coercion campaign.

Echoing Gen. Wesley Clark, Rob de Wijk identified three main political preconditions to military coercion. These are: "no body bags, no collateral damage and the unity of the alliance and/or coalition." The *nobody bag* precondition refers to the imperative to avoid military casualties in the coalition or alliance as much as possible, considering the

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[118] **Cambridge online Dictionary** https://dictionary.cambridge.org/dictionary/english/mandate on the 22nd of October 2019.
[119] DE WIJK, Rob: **The art of military coercion.** ***Op. Cit.,*** p.306
[120] KINGSLEY Regeena, **The fundamental principle of "unity of effort" in multinational operations,** Accessed on the 23rd of October 2019 from the website http://militarycaveats.com/7-the-fundamental-principle-of-unity-of- effort-in-multinational-operations/
[121] Department of Defense, **Doctrine for the Armed Forces of the United States,** 25 March 2013 (Incorporating Change I - 12 July 2017) Accessed from https://fas.org/irp/doddir/dod/jp1.pdf on 23rd Oct. 2019.
[122] NATO, **Interoperability for joint operations,** July 2006. Accessed from the website https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120116_interoperability-en.pdf on the 23rd October 2019.

political consequence it might have back home and the morale of the troops. This precondition can seriously undermine the effectiveness of the military campaign as it will prevent the full implementation of the military strategy. The *no collateral damage* precondition highlights the necessity to avoid civilian casualties. From a strict military coercion perspective, this precondition affects the effectiveness of the coercive strategy as it signals the resolve, thus, the credibility of the coercer. As Byman and Waxman put it, *extreme sensitivity to casualties and suffering among the enemy civilian population similarly shapes the application of US force.*[123] Civilian casualties can also negatively affect the implementation of a coercive diplomacy strategy by withdrawing international and domestic support, which is necessary for the legitimacy and credibility[124] of the coercer's actions. Finally, the unity of alliance strengthens the credibility of the coercer's intentions and actions.

2.1.2.3.1.1.4 Concept of operations and the balance of means and ends.

The concept of operation is "a statement that directs the manner in which subordinate units cooperate to accomplish the mission and establishes the sequence of actions the force will use to achieve the end state."[125] According to Rob de Wijk, the concept of operation should be formulated with the appropriate means to enhance the credibility of the coercer, hence the success of his strategy. The concept of operation is generally implemented in a progressive manner or *gradualism,* which is similar to Alexander George's notion of "gradual turning of the screw." However, Rob de Wijk warns against such a method in a classic military coercion scenario but encourages it in the context of coercive diplomacy as it could be useful *to demonstrate resolve, [...] to gain support at home [and] signal that large-scale destruction could still be avoided.*[126] As it has been previously highlighted, a good strategy is one which combines the appropriate means to achieve the established goal. To attain the right balance between goals and means, Rob De Wijk recommends setting limited and clear political goals. As he argues, *large-scale, complex operations are likely to fail because of budgetary constraints, political caveats, unrealistic objectives, ignorance of the local dynamics and the asymmetrical tactics of the insurgents*.[127]

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[123] BYMAN Daniel and WAXMAN Matthew, **Defeating US coercion,** Survival 41:2, 1999, p.109. Another interesting research in this regard is SESCHER, Todd, **Costly signals, coercion, and the use of force in U.S. foreign policy,** University of Virginia, 2018, 11 pages. BYMAN Daniel and WAXMAN Matthew: **The Dynamics of Coercion. American Foreign Policy and the Limits of Military Might,** Cambridge, Cambridge University Press, 2002, pp134-137

[124] THOMPSON, Alexander, **Coercion through IOs: the Security Council and the logic of information transmission,** Cambridge University Press, International Organization, Vol. 60, N.1, 2006, 35 pages.

[125] Army Doctrine Reference Publication (ADRP) cited by DEMPSEY Richard and CHAVOUS M., Jonathan,
Commander's intent and concept of operations, Military Review, Nov-Dec 2013, p.63

[126] DE WIJK, Rob: **The art of military coercion.** ***Op. Cit.,*** p.314

[127] DE WIJK, Rob: **The art of military coercion.** ***Ibid.,*** p.315

2.1.2.3.1.2 Robert Pape and the coercive use of air power.[128]

Robert Pape's "Bombing to Win" seeks to understand successful military coercion, focusing on air power. Pape shares Daniel Byman's argument that the success of a coercive strategy depends on the coercer's ability to identify and exploit the vulnerability of its opponent. However, this is never an easy task since the target usually tries to undermine the coercer strategy by developing counter-coercion measures. This is what Daniel Byman called the "dynamics of coercion." Pape categorizes coercion theories into four types ("the balance of resolve, the balance of interest, the balance of forces, and the vulnerability of the adversary" that he prefers over the three others.[129] Pape argues that coercers usually employ three main strategies: punishment, risk, or denial; he consequently developed several related theoretical propositions.[130]

2.1.2.3.1.2.1 Pape's propositions regarding the success of a coercive strategy.[131]

Punishment strategies will rarely succeed: "inflicting enough pain to subdue the resistance of a determined adversary is normally beyond the capacity of conventional forces. Punishment strategies will work only when core values are not at stake."

Risk strategies will fail because "they are diluted, and therefore weaker, versions of punishment."

Denial strategies work best "if and when the coercer undermines the target state's military strategy to control the specific territory in dispute."

Surrender of homeland territory is especially unlikely because "nationalist sentiments demand resistance to foreign rule even when physical security cannot be guaranteed." Surrender terms that incorporate heavy additional punishment will not be accepted. Indeed, "there is no incentive to concede when the costs of surrender outweigh those of continued resistance."

Coercive success almost always takes longer than the logic of either punishment or denial alone would suggest. This is because "targets of coercion are usually slow to recognize the magnitudes of both increased civilian suffering and declining military prospects."[132]

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[128] Read also MUELLER P., Karl, **The Essence of coercive air power: A primer for military strategists**, Royal Air Force Air Power review, Vol. 4, N. 3, 12 pages.
[129] Pape argues that theories that do not account for differences in vulnerability cannot accurately predict coercive outcomes; Hence the third theory seems to be the best.
[130] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.5
[131] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.20
[132] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.20

2.1.2.3.1.2.2 The coercive strategies of Robert Pape on air power.

With specific regard to coercive air power, Pape considers it crucial for understanding coercion success and failure.[133] He uses criteria such as "timing, target sets, and munitions"[134] and the mechanism leading to the change of behavior of a target to evaluate coercive strategy's effectiveness. Two key assessment instruments are the tactical (destruction of critical infrastructures) and strategic (political impacts) effects. Pape identifies four main air power coercive strategies:

Punishment strategies aim to cause civilian casualties, potentially inciting revolt (in light of Giulio Douhet's theory of air power). Another interesting approach to punishment strategies is *the theory of the industrial web* which emphasizes the necessity for the coercing power to focus on the critical infrastructures of the economy. The logic is that industrial economies' prowess depends on interdependent sectors; Hence targeting those key sectors will make the economy crumble. **Risk-based** strategies progressively increase civilian casualties to induce compliance. The anticipated damages caused by future strikes will incite the population to revolt against the government, thus leading to its compliance. This idea was developed by Thomas Schelling, who argued that "it is the expectation of more violence that gets the wanted behavior, if the power to hurt can get it at all."[135]

Denial: According to Pape, denial campaigns generally center on destruction of arms manufacturing, interdiction of supplies from home front to battlefront, disruption of movement and communication in the theater, and attrition of fielded forces.[136] He listed three main forms of denial strategies. **The first** one aims at providing air support to grounded forces. **The second** one encompasses two sub-forms: the "critical component theory," which is closely related to the industrial web theory and encourages strikes on the strategic economic and military infrastructures, especially those in charge of military production. The second sub-form is "the system wide" approach which encourages air strikes against macro infrastructures rather than targeting critical components of the economic or military system.[137] **The third** denial strategy focuses on the technical and operational capabilities of the target. Robert Pape asserts that denial strategies are more effective in classic warfare than asymmetric ones. This is because classic warfare involves mechanical weapons more vulnerable to airstrikes.[138]

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[133] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit,*** p.55
[134] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.56
[135] SCHELLING, Thomas: **Arms and influence**, ***Op. Cit***. Cited by Robert Pape, **Bombing to win,** p.67
[136] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.69
[137] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.72
[138] PAPE, Robert: **Bombing to win: air power and coercion in war, *Ibid.,*** p.74

Decapitation: decapitation strategies usually aim at the removal of a regime or its leadership.[139] As we previously analyzed, Pape identified three decapitation strategies depending on the target. The first one, **leadership decapitation**, aims at killing or physically incapacitating the leader or main decision-maker of a State. The second one is **"political decapitation,"** which consists of bombing a State with the prospect of having domestic opposition overthrow the government. The third one is **military decapitation,** *which attacks national command and communications networks in order to isolate the central leadership from its units in the field, so that the leaders can no longer give strategic direction or adjust to enemy moves*.[140] However, Pape maintains that, in general, decapitation strategies are not effective because they are very hard to implement. For example, it's difficult to achieve an assassination goal for security and legal reasons. Also, the toppling of a leader does not always automatically translate into a policy change.

2.1.2.3.1.3 Coercive use of cyber capabilities.

John Stuart Craig defines cyber capabilities as *the resources and assets used by states to project and resist influence through computer network operations*.[141] A recent report[142] from the International Institute for Strategic Studies (IISS) confirms that cyber capabilities are an integrative tool for national statecraft. In other words, States increasingly rely on cyber capabilities to promote their interests or achieve their international objectives, as is usually the case with classical instruments like economic or political instruments. Thereof, States can use their cyber capabilities to compel a target to adopt a specific behavior, and this strategy is usually called cyber coercion. Quentin Hodgson defines cyber coercion as Quentin Hodgson defines cyber coercion as *the use of cyber capabilities to compel an opponent to undertake an action it would not normally wish to perform and avoid an undesirable outcome*.[143] Offensive uses of cyber capabilities – cyber-attacks – are politically attractive for several reasons, starting with their relatively cheap cost compared to traditional military weapons. In addition, cyber-attacks can be carried out with the authors unidentified and held accountable for their deeds. Yet, as Christopher Whyte notes, "cyber coercion—in which a state uses digital instruments (sometimes in tandem with conventional actions) to compel a shift in foreign strategic behaviors—remains understudied; (and) the conditions under which

[139] DE WIJK, Rob: **The art of military coercion. *Op. Cit.,*** p.17
[140] PAPE, Robert: **Bombing to win: air power and coercion in war, *Op. Cit.,*** p.80
[141] STUART CRAIG A., John: **Capabilities and conflict in the cyber domain. An empirical study**, PhD thesis, Cardiff University, 2020, p.ii
[142] International Institute for Strategic Studies (IISS): **Cyber capabilities and national power: A net Assessment**, Report, June 2021, 182 pages.
[143] HODGSON E., Quentin, **Understanding and countering cyber coercion**, RAND Corporation Santa Monica, California, 2018, p.73

cyber coercion might be successful and the determinants of strategic gain have yet to be detailed."[144]

To fill this theoretical vacuum, certain scholars, like Miguel A. Gomez, investigated the conducive conditions of cyber coercion in light of several empirical case studies. Based on the cyber-attacks conducted by the Israel/US against the Iranian nuclear program, he concluded that *for coercion to be successful, an aggressor needs to be able to clearly communicate this threat*.[145] On the other hand, Christopher Whyte argues that cyber coercion can be effective, provided the coercer implements its strategy in a conducive socio-political context. "Technology certainly determines the broad parameters of coercive interaction between states and target actors, but success, and therefore most determinants of strategic decisions surrounding cyber coercion, derives directly from sociopolitical context."[146] Yet, just like coercive diplomacy in general, cyber coercion is very context-dependent. Hence, as Hrafn Steiner accurately advises, "more descriptive research on the use of cyber-attacks for political reasons needs to be done before any conclusions can be drawn."[147]

2.1.2.3.2 Economic-based coercion.

2.1.2.3.2.1 The instruments

Economic statecraft refers to "all the economic means by which foreign policy makers might try to influence other international actors"[148] Depending on the goal of the decision-maker, they can be grouped into positive and negative sanctions. Positive sanctions usually aim to incite or reward a State and can take the form of *preferential tariffs, subsidies, foreign aid, investment guarantees, and preferential taxation of foreign investment.* Conversely, negative sanctions aim at punishing a State for forcing him to change its behavior; they can take the form of *embargoes, boycotts, punitive taxation, aid suspensions, and asset freezes.* This negative aspect of using economic assets is close to the notion of economic warfare, which Thomas Schelling defines as the *economic means by which damage is imposed on other countries or the threat of damage used to bring pressure on them*.[149]

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[144] WHYTE, Christopher, **Ending cyber coercion: computer network attack, exploitation and the case of North Korea**, Comparative Strategy, 2016, Vol. 35, N.2, p.3
[145] GOMEZ A., Miguel, **Coercion and cyberspace**, Elcano Royal Institute, 2018, p.6
[146] WHYTE, Christopher, **Ending cyber coercion: computer network attack, exploitation and the case of North Korea, *Ibid*.,** p.94.
[147] STEINER, Hrafn, **Cyber-attacks as coercive instruments,** Analys & Perspektiv**,** N.3 Juli/Septembre, 2016, p.157-158
[148] BALDWIN, David: **Economic statecraft,** Princeton, Princeton University Press, 1985, p.40
[149] BALDWIN, David: **Economic statecraft, *Ibid,*** p.37

There is no consensual definition of the notion of economic coercion. Murray Scot Tanner considers it to be the efforts at coercive or threatening economic behavior by an initiating government directed against a target government; [it] includes the deliberate disruption, or threat of disruption, of "customary" trade, financial, or other economic relations.[150] Another definition of economic coercion is Daniel Drezner's, who defines economic coercion as the threat or act by a sender government or governments to disrupt economic exchange with the target State, unless the target acquiesces to an articulated demand.[151] Those two definitions reinforce each other: the first one includes the deliberate use of economic means by the coercer to influence the behavior of the target; however, it does not insist on the dimension of rational choice imposed by the coercer as the second definition does. Jonathan Kirshner identified four main types of economic coercion: foreign aid, monetary power, financial power, and trade.[152]

2.1.2.3.2.1.1 Foreign aid

Will Kenton defines foreign aid as the money that *one country voluntarily transfers to another, which can take the form of a gift, a grant or a loan*.[153] Foreign aid can be used as a means of power or influence by international donors who subject their financial assistance to a specific demand, they previously formulated. As Alisson Carnegie described it, *donors have long sought to use foreign aid to obtain* political influence *when states comply with donors' demands, the donors often provide additional aid, but when recipients ignore their requests, donors withhold aid.*[154] However, the impact of the coercive use of foreign aid depends on its strategic importance in the target's economy. Kirshner confirms it by saying, "States can allow themselves to become heavily dependent on continued aid. In some cases, aid can become vital for a particular government's operating budget or provide necessary foreign exchange to pay for imports."[155] From this perspective, foreign aid is a relatively weak coercive instrument as *it could exist in the absence of trade relations.*

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[150] TANNER S., Murray: ***Chinese economic coercion against Taiwan. A tricky weapon to use,*** California, RAND, 2007, pp. 4-5

[151] DREZNER, Daniel, **The hidden hand of economic coercion** in International Organization, Vol. 57, Issue 3, 2003, p.643

[152] KIRSHNER, Jonathan: **Currency and coercion, Currency and coercion: the political economy of international monetary power,** Princeton, Princeton Press University, 1997, 300 pages. (3rd ed.)

[153] KENTON, Will, **Foreign Aid,** accessed on the 24th of January 2020 from the website https://www.investopedia.com/terms/f/foreign-aid.asp.

[154] CARNEGIE, Allison, **Instruments of coercion: International Institutions and the sites of power in international relations**, American Political Science Association, 2013, p.5

[155] KIRSHNER, Jonathan: **Currency and coercion: the political economy of international monetary power,** Princeton, Princeton Press University, 1997, 300 p.22

2.1.2.3.2.1.2 Monetary power

According to Andrews, international monetary power exists when one state's behavior changes because of its monetary relationship with another state.[156] In simple terms, it refers to a situation where a State can influence the value of the currency of another country. This can be done both at the Macro and microeconomic levels. Jonathan Kirshner identified three forms of monetary power. The first is currency manipulation, the second is the fostering and exploitation of monetary dependence and finally, the systemic disruption.[157] A classic example illustrating the monetary power of a country is China possessing the most significant currency reserves in the world, with about three trillion USD. China can wield its monetary power by applying a dumping policy on US debts; however, this will be risky because China's currency stability also depends on the US dollar.

2.1.2.3.2.1.3 Financial power

Financial sanctions refer to restriction policies imposed on a government or a firm that prevents it from *carrying out transactions and/or financial services with a person or organization (known as 'the target')*.[158] Their goal is to compel the target to change its problematic behavior regardless of the area of activities (terrorism, proliferation issues).

2.1.2.3.2.1.4 Trade

Trade sanctions are policies or *laws passed to restrict or abolish trade with certain countries*. Examples of trade sanctions are (partial or total) embargoes, Tariff barriers (higher taxes on the import of goods).[159]

2.1.2.3.2.2 Conditions of success of coercive economic strategies.

Can economic sanctions be considered a viable foreign policy instrument? The answer to this question has been the subject of intense debates in the academic milieu. There are two main trends in analyzing the effectiveness of economic sanctions: the first trend analyses economic sanctions from the Manichean perspective of success or failure. In

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[156] ANDREWS M., David: **International Monetary Power,** State of New York, Cornell University Press, 2006, p.1

[157] KIRSHNER, Jonathan: **Currency and coercion: the political economy of international monetary power,**
***Ibid*,** p.8

[158] DeltaNet, **What are Financial Sanctions?** Accessed on the 24th of January 2020 from https://www.delta-net.com/knowledge-base/compliance/anti-money-laundering/what-are-financial-sanctions/

[159] An information accessed from the website https://www.economicshelp.org/blog/glossary/trade-sanctions/ on the 02nd of December 2019 at 10h15.

contrast, the second trend emphasizes the conditions that increase or decrease the likelihood of economic sanctions being achieved, not without defining what success or failure meant. Concerning the first trend, Robert Pape peremptorily argues that economic sanctions do not work. This is because, as he maintains, they generally miss the right target to hurt: decision-makers who genuinely influence the evolution of a controversial process. As he put it, *economic sanctions often inflict significant human costs on the populations of target states, including on innocent civilians who have little influence on their government's behavior*.[160] In his Master thesis, *Effectiveness of united states–led economic sanctions as a counter-proliferation tool against Iran's nuclear weapons program*, Joel S. Millwee also agrees that the economic sanctions imposed by the US on the Iranian economy failed to lead Iran toward a de-proliferation pattern; however, they played a strategic role in halting Iran's nuclear pace.

Michael J. Cole argues that the reason why US or UN coercive measures, including economic sanctions, failed to compel Iran to rollback its controversial nuclear program is that they have "strangled Iranian civil society, the private sector and the middle-class, severing crucial state-society networks, leaving reformist forces vulnerable to the new wave of hard-liner conservatism that has, despite U.S. pressure, gained control of the state apparatus since 2005."[161] Echoing this point of view, Ebrahim Mohseni-Cheraghlou argued that American and UN sanctions failed in the Iranian nuclear crisis because they *intensified Iranian distrust of the US and the post-war international order and have consequently augmented the forces in Iran that promote and have weakened those that oppose Iran's nuclear fuel cycle program*.[162] Nonetheless, certain scholars highlight the necessity to consider the condition under which the sanction policy was implemented and avoid the simple conclusion that they failed or succeeded.

In their classic *Economic Sanctions Reconsidered*, Gary C. Hufbauer, Jeffrey Schott, and Kimberly Ann Elliott dismiss the idea that economic sanctions do not work. While they admit that certain conditions are not conducive to an effective sanction campaign against a target, they also provide successful conditions for economic sanctions. In crafting and implementing economic sanctions, policymakers and decision-makers should consider a couple of variables in the nature of the sanctioning State's demand. As they argued, "the security, political, or other costs of complying with the sender's

[160] PAPE, Robert, **Why economic sanctions still don't work, International Security,** Vol. 23, 1998, p.76
[161] COLE J., Michael: **Iran, Sanctions, and Nuclear Proliferation: In search of a strategic alternative,** Master thesis, University of New Hampshire, Durham, 2013, p.2
[162] MOHSENI-CHERAGHLOU, Ebrahim: **When coercion backfires: the limits of coercive diplomacy in Iran,** Doctoral thesis, University of Maryland, Maryland, 2015, p.2

demands may simply be higher than any pain that can be imposed with sanctions."[163] Another critical element to consider is the overall impact of sanctions on the global system. In other words, the sanctioning State should make sure that its sanction policy does not negatively impact the economic interests of the prominent actors related to the target. In the same logic, Jean Marc F. Blanchard and Norrin M. Ripsman argue that economic sanctions can work, provided they meet one necessary condition: they should have a high political cost for the target state if it persists in the offending policy.[164]

2.1.2.3.3 Political-based coercion

Political-based coercion usually aims to sever diplomatic relations between the target State and the *international community.* This can be done in different ways, but one preferred strategy in this regard is **diplomatic isolation**.[165] There are two main types of diplomatic isolation: bilateral and multilateral. Bilateral diplomatic isolation can take the form of *diplomatic demarches, the withdrawal of ambassadors, (and the) denial of visas to officials*.[166] Multilateral diplomatic isolation can take the form of UN resolutions, *sport and cultural boycotts.*[167] Another strategy of diplomatic coercion is ***naming and shaming campaigns*** refer to *the activity of saying publicly that a person, company, etc. has behaved in a bad or illegal way.*[168] Finally, Timothy Crawford developed a theory of **coercive isolation** which refers to a specific diplomatic practice focusing on isolating an adversary to render *him more vulnerable to military force and more exposed to the costs of fighting.*[169] For example, he demonstrated how the Soviet compellence strategy against the Japanese during the Mongolia-Manchuria border war could only be effective when the Soviet Union successfully deprived Japan of the military and political support it expected from Germany through the Nazi-Soviet pact.[170] The following chapter will focus on the Iranian nuclear coercive dynamics.

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[163] HUFBAUER C., Gary et al: **Economic sanctions reconsidered**, Peterson Institute for International Economics, Washington, 2009, p.159 (3rd ed.)

[164] BLANCHARD F., Jean-Marc and RIPSMAN M., Norrin**, Asking the right question: when do economic sanctions work best?,** Security Studies, 1999, p.224

[165] KLOTZ Audie, ***Diplomatic Isolation*** in: CRAWFORD C. Neta and KLOTZ Audie (eds): **How Sanctions Work. Lessons from South Africa,** London, Palgrave Macmillan, 1999, 312 pages

[166] DE WIJK, Rob: **The art of military coercion. *Op. Cit.,*** p.110

[167] DE WIJK, Rob: **The art of military coercion. *Ibid,*** p.110

[168] **Cambridge online dictionary,** accessed on the 15th of December 2019 from the link https://dictionary.cambridge.org/dictionary/english/naming- and-shaming.

[169] CRAWFORD W., Timothy**, The strategy of coercive isolation in US security policy,** RSIS working paper, Singapore, 2013, p.ii

[170] CRAWFORD W., Timothy**, The strategy of coercive isolation in US security policy, *Ibid.,*** p.13

**Which coercive theoretical model will be used as the main backdrop of our thesis?

The theoretical models provided by Alexander George, Peter Viggo Jakobsen, and Bruce Jentleson on coercive diplomacy collectively contribute to a profound comprehension of coercive diplomacy, illuminating the intricate dynamics between coercive agents and their targets. George's conceptual framework establishes a fundamental basis by elucidating the mechanisms and tactics inherent in coercive endeavors, underscored by the significance of credible threats and the calculus of costs and benefits. Nonetheless, George's model exhibits limitations in its treatment of coalitional coercion and a superficial examination of the psychological facets inherent in coercion.

Jakobsen's scholarly input extends George's groundwork by addressing these flaws, offering elucidations into the complexities and subtleties of coalitional coercion while contemporaneously accommodating post-Cold War realities. However, Jakobsen's focus on strategic superiority and military assertiveness may inadvertently oversimplify the multifaceted nature of coercive interactions, especially within non-military contexts.

Conversely, Jentleson's and Whytock's theoretical framework introduces game-theoretic principles and psychological underpinnings, thereby furnishing a nuanced comprehension of the rational calculations and psychological biases governing the behaviors of both coercive agents and their targets. Jentleson's emphasis on the interplay between coercion and psychology enriches the analytical landscape, unveiling the intricacies of decision-making processes during coercive encounters.

Synthesizing components from all three models engenders a comprehensive and insightful analysis of coercive diplomacy, bridging the schisms between strategic, coalitional, and psychological dimensions. By combining George's strategic focus, Jakobsen's attention to coalitional dynamics, and Jentleson's psychological insights, analysts are poised to cultivate a more robust understanding of the unfolding and evolving nature of coercive interactions. This integrative approach provides more powerful insights for policymakers and practitioners endeavoring to navigate the labyrinthine intricacies of coercive diplomacy amid the burgeoning uncertainties of the contemporary world. Nonetheless, this research will mainly rely on Bruce Jentleson and Christopher Whytock's analytical models for several reasons.

Jentleson and Whytock's theoretical model considers the inputs of both the coercer and the target, which provides a comprehensive understanding of the outcomes of the interactions between the two protagonists. This theoretical input was a significant flaw

of Jakobsen's theoretical coercion model. Also, this model proposed testable variables that can be applied in other cases and strengthen their theoretical conclusions. Also, the triadic axiom "proportionality, reciprocity and credibility" summarize the propositions of the previous theoretical models.

Thereof, we will analyze the coercive dynamics against the US and Iran, Libya, and South Africa against the backdrop of this theoretical model. In other words, we will examine these coercive dynamics against the backdrop of the following core questions: Was the US coercive strategy proportional? That is, were the coercive instruments matching with the nature of the demands formulated by the US? Second, did the US reciprocate accordingly to the offers of the target? Third, were the threats wielded by the US credible enough to influence the nuclear calculus of the target? We will then proceed to a comprehensive analysis of the inputs of this theoretical model in the section dedicated to the theoretical lessons of the coercive dynamics between the US and Iran, Libya, and South Africa.

2.2 SECTION II - THE NOTION OF NUCLEAR REVERSAL IN PROLIFERATION STUDIES.

"Mainstream scholarly work in strategic studies has tended to focus on issues related to the development, deployment, and diplomacy of nuclear arsenals,"[171] regretted Martin J. Sherwin in the 1989 version of Henri Wolf Smyth's Official Report on the development of the atomic bomb under the auspices of the United States Government 1940-1945. From this perspective, research on international nuclear dynamics since the Manhattan Project seemed to indicate that the history of nuclear weapons has been only the history of nuclear proliferation. Several authors published insightful research on nuclear proliferation in this regard; For instance, Stephen Meyer published a book on the *Dynamics of nuclear proliferation*, while Jo Dong-Joon and Erik Gartzke analyzed the *Determinants of nuclear weapons proliferation*, without forgetting the classical article published by Scott Sagan in 1996.[172] Consequently, the literature on nuclear proliferation is consistently rich and abundant. Fortunately, several scholars also researched another neglected dimension of international nuclear dynamisms: nuclear (weapons programs) reversals.

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[171] Martin J. Sherwin in DE WOLF SMYTH, Henry: **Atomic Energy for Military Purposes. The Official Report on the Development of the atomic bomb under the auspices of the United States Government 1940-1945**, California, Stanford University Press, 1989, 324 pages.

[172] MEYER M., Stephen: **The Dynamics of nuclear proliferation**, Chicago, University of Chicago Press, 1984, 232 pages. Also read DONG-JOON, Jo and GARTZKE, Erik, **Determinants of nuclear weapons proliferation**, The Journal of Conflict Resolution, 2007, Vol. 51, Issue. 1, 28 pages. Read also SAGAN D., Scott, **Why do States build nuclear weapons? Three models in search of a bomb**, International Security, Vol. 21, N. 3, 1996, 33 pages.

2.2.1 Definitions of the notion of nuclear reversal.

The notion of nuclear reversal, like the notion of coercion we will analyze later in the theoretical framework chapter, does not have a consensual definition. For example, Rupal Mehta defines it as "the process by which states stop pursuit of a nuclear weapons program return or dismantle an existing weapons arsenal."[173] But Ariel Levite maintains that one can only speak of a nuclear reversal process when the proliferator's nuclear program or activities face external pressure. Indeed, he defines a nuclear reversal process as a "governmental decision to slow or stop altogether an officially sanctioned nuclear weapons program."[174] The previous two definitions share similarities and differences; regarding the former, both authors insist on the nuclear weapons' aspirations of a proliferator as a critical criterion of a nuclear reversal. In other words, nuclear reversal pertains to the desire of an actor, notably a State, to acquire or maintain nuclear weapons. Regarding the latter, Rupal Mehta provides a neutral definition of nuclear reversal. In contrast, Ariel Levite's definition stresses the importance of external pressures in leading an actor to abandon its nuclear arsenal. These divergent approaches have critical theoretical implications on the "when" and "how" nuclear reversal processes occur.

However, studying nuclear reversal processes presents several challenges for the researcher. Ariel Levite confirms it by arguing that "the literature on nuclear reversal is plagued by a variety of theoretical and methodological problems. Some of these problems are inherent in the very nature of the reversal phenomenon."[175] Among these theoretical and methodological problems stands "equifinality," which refers to the different processes leading to a specific outcome. Two main trends emerged regarding the necessary conditions for effective nuclear reversal outcomes: first, the cooperative approach, and second, the coercive approach. Before dwelling on each of the previous approaches to nuclear reversal, it's important to note that several scholars like Brad Glosserman share the idea that explanations for nuclear reversals lie in nuclear proliferation's drivers. As he argues, "(…) until we know why governments acquire nuclear weapons, it will be difficult to stop them from doing so."[176] In other words, from this perspective, understanding what drove a State towards nuclear proliferation will illuminate the patterns toward the reversal of its nuclear (weapons) program.

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[173] MEHTA N., Rupal: **Delaying doomsday: The politics of nuclear reversal**, New York, Oxford University Press, 2020, p.29. Also read MONTEIRO P., Nuno and DEBS Alexandre, **The Strategic logic of nuclear proliferation**, International Security, 2014, Vol. 39, N.2, p.7

[174] LEVITE E., Ariel, **Never say never again: nuclear reversal revisited**, International Security, Vol. 27, N.3, 2002, p.67

[175] LEVITE E., Ariel, **Never say never again: nuclear reversal revisited**, ***Ibid.***, p.63

[176] GLOSSERMAN, Brad, **Nuclear sword of Damocles**, The Japan Times, August 3, 2004. Accessed from https://www.japantimes.co.jp/opinion/2004/08/03/commentary/nuclear-sword-of-damocles/ on December 18, 2019.

2.2.2 The theoretical models of nuclear reversal.

2.2.2.1 The security model of nuclear reversal.

Scott Sagan identified three main models or drivers behind a state's decision to embark on a proliferation pattern. The security model advocates that a State embark on a nuclear pattern to thwart the perceived or actual threat posed by a rival or peer competitor; the domestic model emphasizes the decisive role of domestic constituencies in fostering the nuclear ambitions of a country, while the third model stresses the instrumental role of norms (prestige and/or international statute) in driving a State in a nuclear pattern.[177] Ariel Levite belongs to the security school of thought of nuclear reversals; indeed, he argues that "among the political factors that play a dominant role, external security considerations-however defined by different leaders-stand out as having consistently had a profound impact on states' nuclear choices."[178]

A central-related concept to the security model of nuclear reversal is *security dilemma*. Coined by the American scholar John Herz,[179] it refers to a situation of *"uncertainty and anxiety" about the intentions of others that places "man in this basic dilemma" of "kill or perish," of attacking first or running the risk of being destroyed*.[180] Applied to nuclear reversal studies, the security dilemma concept helps better understand how the fear of conflict escalation can drive states to reverse their nuclear programs; indeed, States may reverse their nuclear programs when they perceive that the possession of nuclear weapons could escalate regional tensions or increases the risk of conflict against an adversary they cannot defeat. Conversely, if a State perceives a rival nuclear program (at the regional or international level) as a balancing leverage or security guarantee, it can maintain its nuclear program). It's also noteworthy that other scholars provided non-security rationales for nuclear reversals. For example, Jacques Hymans argues that the type/nature of leadership plays a decisive role in a country's decision to roll back its nuclear (weapons) program. More precisely, he maintains that the likelihood of leaders building or reversing a nuclear weapons program is highly shaped by their National Identity Conception (NIC).

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[177] SAGAN D., Scott, **Why do States build nuclear weapons?: Three models in search of a bomb, *Op. Cit.***

[178] LEVITE E., Ariel, **Never say never again: nuclear reversal revisited**, ***Op. Cit.***, p.74

[179] HERZ, H., John, **Idealist internationalism and the security dilemma**, World Politics, 1950, Vol. 2, N.2, 24 pages.

[180] WHEELER, Nicholas, **To put oneself into the other fellow's place**, International Relations, 2008, Vol. 22, N.4, p.2

2.2.2.2 The domestic model of nuclear reversal.[181]

2.2.2.2.1 Jacques Hymans and his National Identity Conception.

Jacques Hymans defined the NIC as "an individual's understanding of the nation's identity his or her sense of *what the nation naturally stands for* and of *how high it naturally stands*, in comparison to others in the international arena."[182] He identified four types of NIC which can explain the nuclear decisions of States. These four types of NIC are the following: the ***oppositional nationalist***, the ***oppositional subaltern***, the ***sportsmanlike nationalist***, and the ***sportsmanlike subaltern***. Jacques Hymans argues that the *Oppositional nationalists define their nation as being both naturally at odds with and naturally equal (if not superior) to a particular external other. As a result, when facing the external other, oppositional nationalist leaders are uniquely predisposed to experience two highly volatile emotions: fear and pride*.[183]

The second type, – *oppositional subaltern* – refers to leaders who lack the courage and guts to go nuclear because they believe their country is not equal to their strategic rival; hence they will actively seek a nuclear power's protection (nuclear umbrella).[184] *Sportsmanlike nationalist* leaders "see no reason to build the bomb but also see much reason to build a significant nuclear technology base and even to oppose the international non-proliferation regime. The nuclear policy preferences of these sportsmanlike nationalists undermine the typical equation made by Western policymakers: if you are building up your nuclear infrastructure while opposing the NPT, you must want the bomb."[185] The last type, the *sportsmanlike subaltern* leaders *would lack either the motivation or the certitude required to take such a dramatic step as building the bomb*.[186] Based on the previous analysis, it seems evident that nuclear reversals are less likely when an oppositional nationalist leader rules the country and more likely when facing oppositional subalterns, provided they receive incentives in terms of credible security guarantees.

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181 This model highlights the influence of domestic political dynamics on nuclear reversal decisions. However, its main limit is the negligence of external factors of nuclear reversal decisions due to an over emphasis on internal dynamics.

182 HYMANS E. C., Jacques: **The Psychology of nuclear proliferation: Identity, emotions and foreign policy**, Cambridge, Cambridge University Press, 2006, p.18.

183 HYMANS E. C., Jacques: **The Psychology of nuclear proliferation: Identity, emotions and foreign policy**, ***Ibid.***, p.13.

184 HYMANS E. C., Jacques: ***The Psychology of nuclear proliferation: Identity, emotions and foreign policy, Ibid.,*** p.13

185 HYMANS E. C., Jacques: ***The Psychology of nuclear proliferation: Identity, emotions and foreign policy, Op. Cit.,*** p.14

186 HYMANS E. C., Jacques: ***The Psychology of nuclear proliferation: Identity, emotions and foreign policy, Ibid.,*** p.14

2.2.2.2.2 Etel Solingen and the importance of the political regimes.

Etel Solingen also stresses the importance of domestic variables in understanding nuclear reversal processes. However, unlike Jacques Hymans, she emphasizes the determinant role of the nature/type of the State's political regime in embarking on a nuclear pattern. More precisely, her argument assumes that *while brokering supportive coalitions, leaders embrace models of political survival suitable to the state and societal constituencies that they seek to attract*.[187] From this perspective, the nature of the political regime will logically shape a State's nuclear decision-making. She developed three ideal-typical models regarding political regimes' influence on nuclear proliferation: ***internationalizing, inward-oriented, and compromise-hybrid*.** The ***internationalizing model*** refers to political regimes where leaders own their political survival less to security and military coalitions than economic growth.

Subsequently, leaders operating in these regimes will promote foreign investments, reduce trade barriers and the involvement of military groups in core political decision-making. Regarding nuclear dynamics, choosing a proliferation pattern might be politically risky for the leader, considering the risks of economic sanctions and political marginalization. On the other hand, economic integration and access to cutting-edge technologies are credible incentives if the country is already embarked on a nuclear pathway. As Bill Keller described it back then, the rationale here is simple: "If you wanted to join the party, you checked your nukes at the door."[188]

Conversely to the internationalizing model, the ***inward-looking*** **model** refers to regimes that adopt a recalcitrant posture toward the international system and reject globalized economic architecture. Solingen argues that this model's affinity with nuclear weapons as ultimate technological and political tools stems from three main rationales. First, "nuclear weapons programs enable the construction of a dense scientific, technological, industrial, military, and bureaucratic complex that can dwarf other economic endeavors—state and private—and attracts additional constituencies that have vested interests or values in that complex. Second, the complex can operate autonomously, without formal budgetary oversight, sometimes even under democratic rule. Third, the complex's actual or imaginary output ("the bomb") is a powerful source of myths ripe for exploitation by inward-oriented leaders for domestic as much as external purposes (…)."[189]

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[187] SOLINGEN, Etel: **Nuclear Logics. Contrasting paths in East Asia and the Middle East**, Princeton, Princeton University Press, 2007, p.41.
[188] KELLER, Bill, **The Thinkable**, The New York Times, May 4, 2003. Accessed on December 18, 2019 from the link https://www.nytimes.com/2003/05/04/magazine/the-thinkable.html
[189] SOLINGEN, Etel: **Nuclear Logics. Contrasting paths in East Asia and the Middle East**, ***Op. Cit.,*** p.42

The third model – ***the compromise-hybrid*** – refers to regimes where "leaders must build compromise-coalitions in societies deeply divided with respect to internationalization, economic reform, foreign investment, and the role of nationalism, sovereignty, and military power. Under such conditions, different partners to the coalition carve out state agencies under their control, sometimes excluding other agencies from any oversight of their own fiefdoms."[190] In other words, these regimes usually adopt contradicting, if not illogical, patterns regarding their position vis-à-vis the international system, gravitating simultaneously around isolation and cooperation poles. Regarding their nuclear stances, they often send mixed signals by adopting the NPT while building a secret nuclear program.

2.2.2.3 The cooperative approach to nuclear reversal.

As mentioned previously, there are usually two leading schools of thought regarding the drivers of nuclear reversals: the cooperative approach on the one hand and the coercive approach on the other hand. Proponents of the cooperative school of thought emphasize incentives' strategic role in leading proliferators towards nuclear reversal. Bruno Tertrais belongs to this school of thought as he argues that "the presence of a credible security guarantee significantly decreases the chances of a country going nuclear, and conversely that its absence significantly increases such chances."[191] Philipp Bleek and Eric Lorber dive in as they argue that "by allying with a patron that has nuclear weapons, a state can enjoy many of the deterrent benefits of the patron's nuclear weapons while not paying the costs associated with developing its own. A security guarantee serves as a substitute for a state obtaining nuclear weapons; a potential challenger to the protégé state will observe that a nuclear-armed patron protects the protégé and will therefore be less likely to threaten or attack the protégé."[192]

However, Alexander Lanoszka has a more nuanced vision of security incentives in deterring a potential proliferator; indeed, he argues that security incentives can prevent an ally from going nuclear, provided the target has yet to start his nuclear weapons program. He maintains that the allies' economic and technological dependence on the US significantly deters the potential proliferator more than the security incentives.[193] Eleonora Mattiacci and Benjamin Jones also emphasized the importance of the nuclear

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[190] SOLINGEN, Etel: **Nuclear Logics. Contrasting paths in East Asia and the Middle East**, ***Ibid.***, p.43
[191] TERTRAIS, Bruno: **Security guarantees and nuclear proliferation,** Paris, Fondation pour la Recherche Stratégique, 2011, Note N.14, p.5. Also read MONTEIRO P., Nuno and DEBS Alexandre, **The Strategic logic of nuclear proliferation**, ***Op. Cit***.
[192] BLEEK C., Philipp, and LORBER B., Eric, **Security guarantees and allied nuclear proliferation**, The Journal of Conflict Resolution, 2014, Vol. 58, N.3, 2014, p.432.
[193] LANOSZKA, Alexander: **Atomic assurance: The Alliance politics of nuclear proliferation**, New York, Cornell University Press, 2018, 216 pages.

progress of the target regarding its likelihood to reverse its nuclear program. As the following figure 2 illustrates well, they identified three stages related to the possibility of a State rolling back or not its nuclear program: the "no nuclear program" phase, the "nuclear program" phase, and the "nuclear weapons" phase.[194]

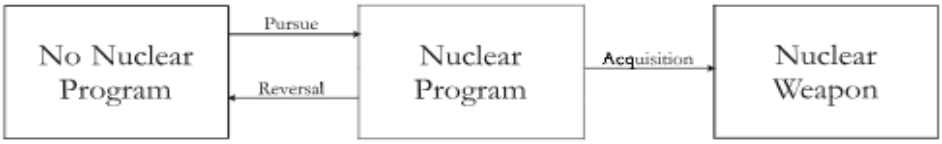

Figure 2: The nuclear development process. Squares indicate phases in the process and arrows define possible transitions.[195]

However, the level of advancement is not the only important factor to consider when assessing the likelihood of a State reversing its nuclear program; indeed, these authors stress another critical variable: the State's rational calculus at each level of the proliferation process. As they argue, "beyond the duration of a state's nuclear program, we theorize the determinants of states' cost-benefit calculations throughout the proliferation process."[196] This rational choice-based argument affects the State's nuclear choices differently at the international and domestic levels. Concerning the international level, they maintain that two factors impact the State's rational choice to transition from a non-nuclear pattern to a nuclear weapons pattern, through the nuclear program. These factors are *the presence of a strong nonproliferation regime, which enables the punishment and isolation of proliferators, and the security environment that a state confronts, as this helps define the potential benefits of increased coercive power*.[197] Regarding the latter, the shaping factors of the State's rational nuclear choice at the domestic level: *nuclear latency, which reduces the costs associated with administering a completing a nuclear program, and the presence of a neo-patrimonial regime, which increases those same costs by virtue of removing constraints on the executive*.[198]

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[194] MATTIACCI Eleonora and JONES T., Benjamin, **(Nuclear) change of plans: what explains nuclear reversals?**, International Interactions, 2016, Vol. 42, N.3, p.531
[195] MATTIACCI Eleonora and JONES T., Benjamin, **(Nuclear) change of plans: what explains nuclear reversals?**, ***Ibid.***, p.531.
[196] MATTIACCI Eleonora and JONES T., Benjamin, **(Nuclear) change of plans: what explains nuclear reversals?**, ***Ibid.***, p.535
[197] MATTIACCI Eleonora and JONES T., Benjamin, **(Nuclear) change of plans: what explains nuclear reversals?**, ***Ibid.***, p.535
[198] MATTIACCI Eleonora and JONES T., Benjamin, **(Nuclear) change of plans: what explains nuclear reversals?**, ***Ibid.***, p.535

2.2.2.4 The coercive approach of nuclear reversal

Regarding the coercive approach of nuclear reversals, Nicholas Miller argues that a coercive strategy, primarily an economic sanctions-related strategy, can successfully compel a State not to develop a nuclear weapons program provided before its leaders have made such a decision. This is because, as he declares, "rational leaders assess the risk of sanctions before initiating a nuclear weapons program, which produces a selection effect whereby states highly vulnerable to sanctions are deterred from starting nuclear weapons programs in the first place, so long as the threat is credible. Vulnerability is a function of a state's level of economic and security dependence on the United States - states with greater dependence have more to lose from US sanctions and are more likely to be sensitive to US-sponsored norms."[199] In this regard, he shares a common view with Etel Solingen regarding the likelihood of an inward-looking regime reversing its nuclear program.[200] Rupal Mehta conceptualized a theory of nuclear reversal which combines elements of the cooperative and coercive approaches. The central argument of her thesis is that "nuclear reversal is most likely when states are threatened with sanctions and offered rewards that are tailored to compensate for a lost nuclear weapons deterrent."[201] However, the effectiveness of the coercive strategy lies in two essential factors: the nature of the bilateral relations between the antagonists (coercer and target) and the instrumental role played by the leaders.

Regarding the bilateral relations of the coercer (the State aiming to prevent the target from proliferating, mostly the US) and the target, Rupal Mehta maintains that if the two parties share similar preferences in terms of policies and values, then the coercer will *be less opposed to the program and can offer incentives to make the proliferator indifferent or satisfied to end the program. This logic accounts for many of the instances of nuclear reversal observed among friends, and often allies, of the United States*.[202] But suppose the two parties do not share similarities in policy preferences, then *the coercer is more likely to be opposed to the program and to resort to a different combination of inducements to encourage nuclear reversal*. (…) *It is important to note that sanctions by themselves are unlikely to delay or stop nuclear development. Rather, they must be employed in tandem with rewards to motivate leaders to reverse nuclear course and agree to accept a deal to forego a nuclear deterrent*.[203] Regarding the instrumental role of the leaders in the effectiveness of a coercive nuclear reversal strategy, Rupal Mehta argues that "the extension of inducements plays a critical role in shifting how leaders view their

[199] MILLER L., Nicholas, **The secret success of nonproliferation sanctions**, International Organization, 2014, Vol. 68, N.4, p.913.
[200] MILLER L., Nicholas, **The secret success of nonproliferation sanctions**, ***Ibid***., pp.915-917
[201] MEHTA N., Rupal: **Delaying doomsday: The politics of nuclear reversal**, New York, Oxford University Press, 2020, p.26
[202] MEHTA N., Rupal: **Delaying doomsday: The politics of nuclear reversal**, ***Op. Cit***., p.27
[203] MEHTA N., Rupal: **Delaying doomsday: The politics of nuclear reversal**, ***Ibid***., p.27

nuclear weapons programs. New leaders may have some preference with which they too may be willing to come to the table and negotiate nuclear reversal. This calculus may evolve upon their entry into office as policy positions change after coming into office."[204]

Another critical factor to consider when analyzing nuclear reversals is the notion of nuclear latency or hedging. It refers to a national strategy of maintaining, or at least appearing to maintain, a viable option for the relatively rapid acquisition of nuclear weapons, based on an indigenous technical capacity to produce them within a relatively short time frame ranging from several weeks to a few years.[205] Nuclear latency is a complex phenomenon which complicates the understanding of nuclear reversal phenomena; indeed, it's an intermediary status between a non-nuclear weapons status and a totally fledge nuclear weapons capacity, which makes it hard for policy-makers and scholars to categorize nuclear hedging states regarding the non-proliferation regime clearly. Several States usually maintain latency capabilities for prestige and status reasons considering the high technological level (uranium enrichment and plutonium reprocessing) of the latency status. Yet, the previously mentioned technological capabilities also explain the rigorous international scrutiny and monitoring nuclear hedging States are usually subject to, as was the case with Iran under the 2015 Joint Comprehensive Plan of Action (JCPOA).[206]

Regarding nuclear reversal dynamics *per se*, Rupal Mehta argues that nuclear latency can serve as an excellent incentive to a proliferator. As she declares in this regard, "States interested in curbing nuclear weapons proliferation may be able to dangle the carrot of the pursuit or possession of nuclear latency to a proliferator. This incentive may serve as a substitute for a weapons pursuit in the first place or as an attractive off-ramp for dismantling the weapons capability. Seen in this light, latency may suit the needs of both sides in a nuclear bargain. The nuclear aspirant retains some of its advanced nuclear infrastructure as opposed to having to dismantle it entirely, and the nonproliferation community manages to limit the spread of nuclear weapons."[207] But for Tristan Volpe, a nuclear latency capability grants the nuclear challenger leverage against the nuclear non-proliferation gatekeeper. Indeed, by retaining the capacity to cross the nuclear threshold, the challenger can extract certain concessions (in terms of security guarantees) from the nuclear gatekeeper. However, Tristan Volpe considers this strategy quite risky from the challengers, as *they must demonstrate sufficient resolve*

[204] MEHTA N., Rupal: **Delaying doomsday: The politics of nuclear reversal**, ***Ibid.***., p.27
[205] LEVITE E., Ariel, **Never say never again: nuclear reversal revisited**, ***Op. Cit.***, p.69
[206] It is important to mention that the nuclear latency agreements between the protagonist countries are highly influenced by the nature of their bilateral relations and their convergence in terms of policy preferences.
[207] MEHTA N., Rupal: **Delaying doomsday: The politics of nuclear reversal**, ***Op. Cit.***, p.199

to cross the nuclear weapons threshold while also reassuring the target with costly signals that compliance will be rewarded with a nonproliferation commitment. The challenger's level of latent capacity to produce nuclear weapons drives the severity of this tension between issuing credible threats and assurances.[208]

Based on the previous information, we will analyze the coercive dynamics between the US and Iran, Libya, and South Africa by paying closer attention to the input of the earlier theories of nuclear reversal. In other words, as each of our case studies is unique, we will not restrict our analysis to one single theory of nuclear reversal; instead, we will rely on each of the models developed by the previous authors we analyzed the theories of. Consequently, when analyzing the coercive nuclear dynamics between the protagonists, we will pay closer attention to: Jacques Hyman's National Identity Conception (NIC) and the types of leadership the US confronted when addressing the target's nuclear challenge, Etel Solingen's inward-looking, outward-looking, *compromise-hybrid* political regimes. We will also pay attention to the role of incentives (security guarantees and economic stimulus or inducements) in leading States to reverse their nuclear pattern. We cannot ignore Eleonora Mattiacci and Benjamin Jones' argument of the level of advancement of nuclear pattern in leading to nuclear reversal without forgetting Rupal Mehta's model of nuclear reversal, which combines threats (economic sanctions) and incentives. As we mentioned previously, the following chapter encompasses the theoretical framework and the methodology.

[208] VOLPE A., Tristan, **Atomic Leverage: compellence with nuclear latency**, Security studies, 2017, Vol. 26, N.3, p.518.