



# Försvarshögskolan

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Author		Programme
Johan H Guggenberger		HOP
Course director: Professor Alastair Finlan		Word count: 19508
Supervisor	Course	Code
Doctor Stefan Lundqvist	Master's thesis in war sciences	2HO013
<b>Deterring the compeller - a study into the outcome of compellent threats.</b>		
<p>Scholars find that compellence and coercion tend to fail even when done by strong states against weaker states. Research suggests that such failure primarily rests with the initiator and that the target is successful. Does this mean that the weaker states have found the means to withstand threats? This study investigates compellence from the view of the target of such threats. In this study, we investigate resistance to compellence and their outcome by testing factors resting in both the initiator of threats and the target. We find that compellence does indeed tend to fail but so do attempts at resisting such threats. Furthermore, the study finds that the outcome of compellent threats is not dependent on the investigated factors in the initiator and the target. The study also proposes that the most common outcome of compellent threat situations is one where both parties fail to reach their preferred outcome.</p>		
Keywords:		
Deterrence, coercion, compellence, threats, small states, weak states		

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# 1 INTRODUCTION

The power to hurt and threaten to hurt, as well as the capability to resist being hurt, is central in world politics. In the field of coercion research, focus is often assigned to investigating the attempts of strong states to coerce weaker states. Interestingly the view is that strong states often find coercion and compellence difficult, allowing weaker states the possibility to refuse to comply.

In International Relations (IR), the traditional view is that the international system is dictated by great powers and that weaker or smaller powers have little say (Ingebritsen et al., 2006: p. 3). This echoes passages from ancient civilizations such as the Melian dialogue<sup>1</sup>. However, the workings of deterrence are not static even if its essence stays the same.

We must ask ourselves whether it still holds true that weaker states are subject to the will of the strong. Can stronger states still coerce weaker states only by threatening to use force? In the 21st century, scholarly evidence suggests that the answer no longer is entirely affirmative. Researchers are therefore questioning the validity of old truths. They increasingly focus on the study of how stronger states seek to coerce weaker states, and why stronger states fail to do so successfully. We find, however, that scholars fail to fully investigate if and why small states successfully manage to withstand such attempts of coercion. We must, therefore, ask ourselves if this is the case, and if so, what factors increase the chances of a small state resisting coercion by stronger states.

By examining examples of *deterrence*, *coercion*, and *compellence* from the perspective of states who are being targeted by coercive threats in conjunction with the states issuing threats, we can gain a better understanding of if target states actually are able to withstand

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<sup>1</sup> “*The strong do what their power allows (dunata) and the weak suffer what they must.*” (Strassler, 1996)

*coercion*. Furthermore, we gain insights into the changing nature of *deterrence* and *compellence*. This is especially relevant for non-aligned militarily weak states in the modern international system.

The aim of this study is primarily to investigate states, which are subject to compellent threats, and explain outcomes and what factors are significant to small states ability to withstand such threats. Thereto, this study aims to study whether it is possible or not to withstand or increase resilience against received *compellent threats*. The results can help strengthen our understanding of the dynamics of *coercion* and support implementation of policy.

## 1.1 Research questions

**Which military, political, and economic factors influence the outcome and successful deterrence of compellent threats, among states included in this study?**

By studying the components of *coercion* that are associated with *compellent threats* and the resilience against such threats, we can explore which factors influence the outcome. This contributes to explaining whether such threats can be deterred and develop our knowledge about the dynamics involved in *compellent threat* situations and in resisting such threats. We also gain insights on how to better understand and define the possible outcomes.

In this study, we test cases of compellent threats by using quantitative methods to explain what factors influence the outcome and ability to withstand threats.

## 1.2 Sources and scope

This study is based on the empirical work of Sechser (2011) and the *Militarized Compellent Threats, 1918—2001* (MCT) data set. The MCT data set uses source data from International Crisis Behaviour (ICB) and Militarized Interstate Dispute (MID) datasets as well as other sources to create a specially designed data set (Brecher and Wilkenfeld, 2000; Palmer et al., 2019). The subsequent MCT data set is “*designed specifically to help test hypotheses about the use and effectiveness of compellent threats in international politics*” (Sechser, 2011: p. 379).

The MCT data consists of dyadic data on issued *compellent threats* between 1918—2001. This data serves as the empirical base for investigating relevant factors in *compellent threat* situations. This will allow us to investigate which factors influence resilience to *compellent threats*.

Researchers are arguing that several aspects of *coercion* are changing. This leads to a possible change in our understanding of *coercion* in the Cold War and the post-Cold War system. To allow us to take into account the changing nature of *coercion* and the impact of the Cold War and nuclear weapons. This study examines *compellent threats* in the period 1950 to 2001.

*Coercion* and *compellence* were originally defined by Schelling (1960: p. 195, 1966: pp. 78–91) and these definitions are still largely valid and the terminology remains relevant for understanding the subject area. However, since the use of strict definitions is unnecessary for theoretical progress we will refrain from doing so (Jakobsen, 2011).<sup>2</sup>

In this study, we use published empirical data from different secondary sources together with selected parts of the MCT data set. To analyse this aggregated data, we use exploratory descriptive statistics and logistic regression. The study uses secondary sources, it does not contain identifying information on participants nor information that can be linked to identify participants. Thus, we find no potential harm to individuals. The Quantitative data used in the study is appropriately cited from their respective sources.

For clarity, we will define the terms *initiator* and *target* in order to ensure clarity throughout the text. In this study, the term *initiator* is used to indicate a state issuing a *compellent threat* while the term *target* is a state receiving a *compellent threat*.

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<sup>2</sup> Jakobsen (2011: p. 158) does indeed make a valid point that new terms are used by theorists as click-bait for citations. In this study we will therefore use the more conventional terms.

## 1.3 Disposition

Section 1 introduces the theme of the study, the subject and the puzzle investigated are presented. Furthermore, the main empirical sources and specific terminology used in the study are also presented.

Section 2 summarizes the state of the art in deterrence research. It starts with a thematic review of deterrence theory and how it is understood today, followed by an overview of *strategic coercion*.

Section 3 introduces the research design by introducing the related theory and the selected method. The final part of the section presents the operationalisation of theory and method in the study.

In section 4, the data, the analysis and the results of the study are presented.

Finally, section 5 discusses the conclusions drawn on the findings and reflects on the empirical results while suggesting further research.

In the appendices, a condensed version of the data set is provided. Upon request, the replication data used in the study can be made available in digital form.

## 2 THE POWER TO HURT IN THE INTERNATIONAL SYSTEM

Attempts to avoid being subjected to brute force by being able to threaten to respond with reciprocal brute force are not new and make up the base in the concept of *coercion*. Thucydides writings about the Peloponnesian war between Sparta and Athens described how leaders at the time tried to influence the outcome by using deterrence and compellence (Lebow, 2007). Arguably, it is not until the 20<sup>th</sup> century that the theoretical structure, terminology, and framework evolved and that the introduction of nuclear weapons spurred this evolution (Jervis, 1989; Knopf, 2010).

### 2.1 The Origins

The end of World War II (WWII) coincided with the theoretical leap taken by Brodie (1946: p. 62), explaining that: “*Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.*” The primary purpose of military force changed with this statement and affected security strategy, theory and policy. Averting wars rather than the actual decisive victories became the core of study in the field.

Following the developments during and after WWII, theorists have increasingly used operational analysis, game theory, and theory about deterrence. This holds particularly true for the United States (U.S.); the RAND Corporation (RAND) took the lead. Over time, well-known scientists such as Brodie, Schelling, Kaufman, Khan, Ellsberg, and Wholstetter were all connected to, or employed by, RAND. Schelling was the one scholar at RAND who might have been the most influential in the development of theories on *coercion* and *deterrence*. The works of Schellings (1960, 1966) are described as having continued impact providing a foundation in shaping modern deterrence theory in the subject area (Klinger, 2019: pp. 86–90).

RAND was closely connected to the U.S. Air Force and the U.S. government. This placed the scholars at RAND in a much criticised vice between governance and academia (Klinger, 2019: pp. 60–65). Brodie went so far as to criticise RAND’s products to the extent of calling them: “[I]rrelevant policy advise and poor scholarship” (Gray, 1971). As a result, research in the field focuses on the U.S. and its behaviour in the international system while ignoring weaker states. In this study, we attempt to bridge this gap and integrate the situation and actions also of weaker states.

As early as 1960, Schelling adopted a modified view on a strategy where actors' "*exploitation of potential force*" was in focus rather than their "*application of force.*" The difference is that *brute force* involves the use of (military) force and *coercion* involves the threat of using such force (Schelling, 1960).

In *Arms and Influence*, Schelling (1966: pp. 78–86) develops the concept of *coercion* and further defining the concept of *compellence*. These concepts are laid out in what can be considered the base for subsequent research using *game theory* and *rational actor* view of deterrence. He described two types of threats: those designed to *deter* a potential aggressor, and those designed to *compel* a target.

When a country finds itself at risk of being subjected to brute force it is likely to take *deterrence* measures, both long and short term, to mitigate the risk. This is done by attempting to raise the cost of the action for the aggressor. This usually includes improving military defence to better *deter* an antagonist. *Compellence*, on the other hand, is when a state makes demands and threatens the use of force if their demands are not met.

Schelling's ground-breaking work on *compellence* was complemented by George and Simons (1971) who elaborated on *coercive diplomacy* (Jakobsen, 1998: p. 3). Scholars constantly develop new terminology, with similar meanings, sometimes interchangeably and sometimes not, whereby *coercive diplomacy*, *as well as coercive threats and other terms*, appear in literature<sup>3</sup>.

Knopf categorizes the modern evolution into four waves of deterrence research starting at the end of WWII. This description of waves in research is accepted by some scholars while others reject the division. Knopf's first wave was in the post-WWII era. The second wave began with the evolution of theory on nuclear strategies developed in the

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<sup>3</sup> E.g. Sechser (2010)

50s and 60s. The third wave evolved during the 70s with researchers increasingly using case studies and statistical methods. The fourth wave evolved from real-world developments, dependant to a large part on the 9/11 attacks on the World Trade Centre in New York, and the emergence of the non-state actors that had to be deterred or coerced (Knopf, 2010: p. 1).

Another way to look at the evolution of theory is tracing the real-world developments since WWII. The Cold War featured a bipolar world order involving the U.S. and the Soviet Union and their respective allies forming opposing blocs. The dissolution of the Warsaw Pact and demise of the Soviet Union around 1991 allowed the U.S. to assume the role as the sole global superpower. During the post-Cold War, deterrence researchers argued that the bipolar system was the surest guarantee for peace. In the period of unipolarity, the U.S. acted as an uncontested hegemon influencing and steering research into cases where the outcome is often far from successful (Art and Greenhill, 2018: pp. 77–78). Entering this period, scholars were apprehensive as theory proposed that deterrence was more likely to fail with the demise of the bipolar system (Mearsheimer, 1990; Zagare and Kilgour, 1993). By the end of the first decade of the 21st century, Russian and Chinese powers are growing and a multipolar setting seems to be evolving (Brands and Edelman, 2017). This means scholars must consider a change in the international system at the same time as developments in warfare, resembles the post-WWII situation.

If we look forward into the second decade of the 21<sup>st</sup> century, we find researchers exploring cyber warfare, cross-domain deterrence, multi-domain operations, weaponization of civilians, global strike weapons, and other current aspects in order to incorporate them into theory (Lindsay and Gartzke, 2019: pp. 3–13).

Rostocks notes the altered discourse in international politics, which changed with the end of the Cold War to one neglecting *deterrence*. He argues that the current debate now deals less with military aspects and that there is a relative absence of nuclear deterrence. Instead, the debate is focused on resilience through total defence and societal structures (Rostoks, 2019: pp. 3–4).

Lindsay and Gratzke (2019: p. 15) suggest that there is a relaxation of classical deterrence away from “*nuclear weapons, bargaining and state actors*” and that it now addresses

other problems. This supports the findings of Sechser and Fuhrmann (2017) on the limited usefulness of nuclear weapons in deterrence, which we will return to.

As presented above, we can expect a widened view on *coercion* and *deterrence*, now involving other tools and methods than threats of brute force and military power. Cross-domain deterrence including societal, cultural and economic factors and sanctions is arguably a growing field (Lindsay and Gratzke, 2019: pp. 21–22). Or, as Conley (2019) aptly describes it, anything in modern deterrence setting can be used as a weapon. Giles and Elis (2017: pp. 67–68) do however point out that form of *coercion* will not work without being backed by the threat of actual military force. In many cases, especially involving Russia, sanctions are proving to be an unreliable tool and it seems more effective to target the troublesome behaviour (Giles and Elis, 2017: pp. 73–74). Closely connected to this is punishment by cyber-attacks where at least Russia has stated that it will consider punishing attacks as similar in effect to the use of WMDs (Heickerö, 2010: p. 15). Greenhill (2019: pp. 262–263) raises another interesting aspect in the weaponization of civil aspects, such as using refugees and migration patterns as potent coercive tools.

The essence of *strategic coercion* is likely to remain relevant available means and factors will change with its development. We must also consider that the impact on earlier theory might be less expected, or that theory remains unchanged. Contemporary research proves that there are still gaps in need of filling in the field of *strategic coercion*. We need to be mindful as we are in a state of evolution, and as in the past, cannot begin to predict its full effects.

We must also bear in mind that even if available tools for *coercion* are increasing, cases of failed *deterrence* leading to *conflict* are likely to be followed by efforts of parties to limit escalation by different means. As Morgan (2019: p. 57) points out, even if it is proven uncommon in recent theory, classical deterrence not only deters aggression but also seeks to prevent escalation. In times of change, many countries find *deterrence* once again becoming more relevant to their security and a common subject in security and IR debates.

Byman and Waxman (2000) argue that coercive strategies provide the largest *returns on investment* when concessions are gained without the need to resort to the use of force. They propose that *coercion* is the opposite of Schelling's definition of "*brute force*", but

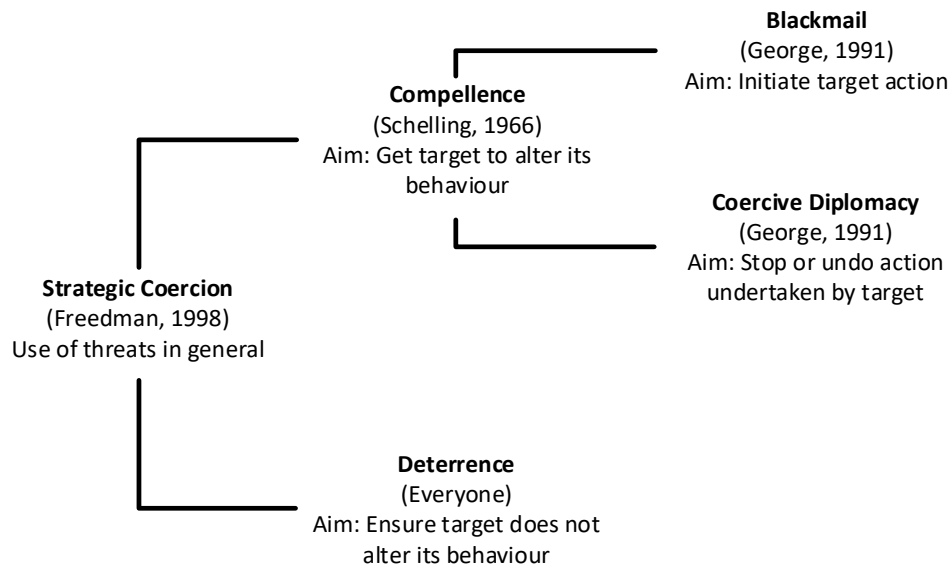
that the line separating the two is blurred. As units of measure, they use “...*four basic elements of coercive threats: Benefits, costs, probabilities and perception*” (Byman and Waxman, 2002: p. 11). They are careful to point out that the critique against cost-benefit models are justified, but emphasize that it is still very useful for the development of *deterrence theory*.

Among scholars, there is extensive debate concerning distinctions between different forms of *coercion*. George (1979: pp. 8–9) defines three types of defensive *coercive diplomacy*, while Pape (1996: p. 13) defines two fundamental types of *coercion*; coercion by punishment and coercion by denial.

These differences are not due to scholastic obscurity. Rather, they depend on that the different concepts in deterrence and coercion theory are malleable. This is in line with the essence of theory as it highlights the fluid boundary between deterrence and coercion.

## 2.2 Strategic Coercion

We will define the field of *strategic coercion*, a term often used interchangeably with the term *deterrence*. In this study, we consider *strategic coercion* the *field of study*. We differentiate between *compellence* and *deterrence* that both represent different subordinate forms of *strategic coercion* (Freedman, 1998: pp. 15–36). *Strategic coercion* is loosely built on Schelling's (1966) and George and Simons' (1994) concepts of *deterrence* and *coercive diplomacy*. *Deterrence* involves ensuring a target does not behave in an undesirable way. *Compellence* involves ensuring a *target* behaves in a certain way. George (1991) breaks *compellence* down further into *blackmail* and *coercive diplomacy*. In this study, our focus is on *compellence* as we intend to explore *compellent threats*. This follows Jakobsens (2011: p. 155) suggested terminology for a clear understanding of the craft of *strategic coercion* in research and its theoretical origins, see Figure 1.



*Figure 1 - Terminological overview. Source: Jakobsen (2011)*

In this study, we focus on the use of conventional military means. However, nuclear weapons and their role in coercion must be addressed because of their influence on deterrence theory.

In Coercion, denial involves creating deterrence by manipulating the aggressors' tools to initiate action or make such action unlikely to succeed. Punishment is traditionally connected to nuclear deterrence but also with theory on strategic airpower starting with Douhet (2009 [1921]). Punishment means to coerce by threatening to “*punish*” the opponent, primarily its population, government, or infrastructure as opposed to his military capability (Snyder, 1961: pp. 14–16).

Classical nuclear deterrence in the Cold War was based on concepts of massive retaliation, mutually assured destruction (MAD), brinkmanship (the manipulation of

risk), and the “*last clear chance*.” Ten states<sup>4</sup> have acquired nuclear weapons at a great cost since 1945. Nuclear diplomacy has revolved around establishing the necessary conditions for maintaining *status quo* and prevent out of control escalation. Nuclear weapons are also considered having *coercive* qualities since the threat of their use could alter unwanted behaviour. The threat of nuclear weapons involves brutal and harsh punishment if a target state does not comply (Sechser and Fuhrmann, 2017: pp. 3–5).

Tannenwald (2005) suggests the development of a taboo against the actual use of nuclear weapons in the same way as chemical-weapons. To date there have only been two nuclear strikes, those in Nagasaki and Hiroshima and nuclear weapons can be considered an illegal weapon of mass destruction (WMD) (Tannenwald, 2005). The traditional theory holds that nuclear weapons are powerful tools of *coercion* (Schelling, 1966). More recent studies have shown that this premise might also be false. Punishment by nuclear weapons and strategic airpower is therefore being rejected as it is less powerful than previously understood (Pape, 1996; Sechser and Fuhrmann, 2017).

Sechser and Fuhrmann (2017: chap. 7) provide compelling arguments that *nuclear coercion* does fail as threats of one-sided nuclear attack lacks credibility. They also argue that the Cuban missile crisis, often held as a benchmark to nuclear deterrence, might not be a representative case. This reasoning effectively leads us to question what we know about nuclear coercion, and even what we know about conventional coercion. We also learn that nuclear powers actually rarely engage in confrontation and that brinkmanship is less frequent than expected. As Carcelli and Gratzke (2017: p. 18) point out, we might be better off moving beyond generalizations of nuclear weapons – conventional weapons and test other assumptions. As they suggest: “*why assume that conventional weapons cannot deter nuclear attacks?*”

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<sup>4</sup> Notably South Africa joined the club of nuclear weapons capable states but dismantled its capability.

## 2.3 Deterrence

Considered easy in theory and difficult in practice, nuclear and conventional *deterrence* are key concepts in *strategic coercion* and the subject to intense study. Frequently, *deterrence* is seen as purposefully attempting to persuade an opponent, under the threat of harm, to do or refrain from doing something (Jones, 1968: p. 1). *Deterrence* can be seen as essentially threatening an opponent with unacceptable costs for non-compliance (Rossi, 1973). Art and Waltz (1971: p. 6) define *deterrence* as operating “...by *frightening a state out of attacking,...*” Mearsheimer (1983: p. 14) describes *deterrence* as a state’s perception of estimated risks and costs in relations to the benefits of action. Bearing this in mind, we accept *deterrence* as the strategic manipulation of the calculation of benefits versus cost and risk. Furthermore, *deterrence* involves ensuring that a target does not alter its behaviour in undesired ways.

The complicating factor in tailoring *deterrence* lies in making a correct assessment of one’s opponent. A target state of aggression must assess how the aggressor evaluates the costs and benefits in play (Klinger, 2019). *Deterrence*, therefore, involves the need to know your opponent rather than trying to frighten the opponent.

The risk of attrition is commonly believed to incur unacceptable costs to both sides in most conflicts. Historically, World War I remains the prime example where attrition and stalemate inflicted huge costs on both sides once they engage in conflict. The risk of attrition in conventional *deterrence* is thus considered a most powerful agent. Mearsheimer (1983) reworked and refined *deterrence* thinking and described a developed theory of what makes *deterrence* work. His theory is based on two-state conflicts where mechanized armies of similar strength oppose each other. The theory states that *deterrence* outcomes with the highest success in a conflict are the ones where a risk of attrition is present. Mearsheimer's model is empirically sound and the role of attrition as a deterrent force cannot be discarded lightly. The chance of a conflict drawing parties into attrition is still often considered a strong factor for *deterrence* and it has served to reduce the risk of conflict (Mearsheimer, 1983).

Cold War *deterrence* research focuses on the bipolar dynamic between the Warsaw Pact (WP) and the North Atlantic Treaty Organisation (NATO). At the time, *nuclear deterrence* was the focus of conventional *deterrence* research resulting from successful nuclear *deterrence*. This led to the previously-mentioned norm of non-use of nuclear

weapons, increases to the cost of using nuclear weapons even more (Tannenwald, 2005). Arguably, this could be changing with emerging nuclear actors and older actors evolve and react to new developments. Vanaga (2019: p. 275) describes Russian contemporary nuclear weapons as a possible tactical tool to prevent conventional defeat while nuclear weapons are considered a political-strategic tool in the West.

Huth (1999: p. 27) proposes that deterrence can be further divided into two compatible pairs that can be combined, namely general and immediate deterrence (Morgan, 1977); and direct and extended deterrence (Huth and Russett, 1984). These, in turn, are subdivided into direct-immediate deterrence, direct-general deterrence, extended-immediate deterrence, and extended-general deterrence.

General deterrence involves pre-planned strategies and policies used over time to deter a would-be aggressor. In other words, it is the systematic build-up of assessed cost for an adversary to initiate aggression. Immediate deterrence, on the other hand, starts when general deterrence fails, at the onset of aggression or in the moment threats of aggression are issued towards a target state (Morgan, 1977).

Direct deterrence means what a state does to protect itself and increase the cost of enemy aggression to itself. Extended deterrence represents a case of a state coming to the aid of a state who is the target of aggression or threats of aggression. This is done in order to increase the assumed cost for an aggressor (Huth and Russett, 1984).

The study of deterrence is particularly difficult given that successful *general deterrence* is difficult to prove since success is dependent on a would-be aggressor really being *deterred*. A would-be aggressor would have nothing to win by showing successful deterrence. It is clear that *deterrence* failure is easier to gauge while *deterrence* success is disputable at best (Fearon, 2002: pp. 5–6). We have to consider that 100% *deterrence success* is actually identified by cases where there are no signs of aggression or *deterrence* failure.

## 2.4 Compellence

This study concerns mainly *compellence*; we will see, however, that the boundaries between *deterrence*, *coercion*, and *compellence* are vague at best.

*Compellent threats* involve threats of using force combined with a demand. If the target does not comply with the demands, be they possessions or an altered behaviour, the threat can be activated (Schelling, 1966).

Generally, *compellent threats* are believed to be issued to states that are relatively weaker than the *initiator*. Even so, researchers are discovering time and again that the successful *compellent threats* are not the majority. The Holy Grail has thus been to discover how to make *compellence* work.

The difficulty of the subject is addressed by Lindsay and Gratzke (2019), concluding that actors can disagree on which state is issuing *compellent threats* and who is *detering* who. Some actors claim to be exercising *deterrence* in order to be appearing to act in self-defence. This makes it difficult for scholars to actually find cases that exemplify what they want to study.

A *compellent threat* on its own is a failure in *deterrence* by the *target* state but the failure can be represented by different actions by the *initiator*. What distinguishes *compellent threats* from *deterrence failures* such as *conflict* or *fait accompli* is that there is a renewed *deterrence* possibility before the final outcome.

There are numerous studies on the success rates for *compellence*, *coercive diplomacy*, and *compellent threats*; these have been conducted using different methods and data sources. The rate of success is low compared to the number of cases. The outcome was positive in 125 out of 355 cases equalling a total success rate of 35 per cent, see

Table *I*. The studies listed show that attempts of *coercion* and *compellence* tend to fail.

*Table 1 - Previous studies on compellence and coercion*

Type	Source	Success/Total	Success rate (%)
Compellence	Blechman and Kaplan	5/28	18
Compellence	Petersen	16/67	24
Coercive Diplomacy	George and Simons	2/7	29
Coercive Diplomacy	Art	2/8	25
Coercive Diplomacy	Art (expanded set)	5/16	31
Compellent threats	Sechser	87/210	41
Compellent threats	Pfundstein Chamberlain	8/19	42
Total		125/355	35

Sources: (Blechman and Kaplan, 1978; Petersen, 1986; George and Simons, 1994; Art, 2003; Sechser, 2011; Pfundstein Chamberlain, 2016).

When comparing these cases, we, of course, find discrepancies as to how different scholars have operationalized the outcome for *success*. This does not, however, discriminate the comparison of these findings as the generality of the outcome still remain valid.

By using different research methods, Pape (1996), Arreguín-Toft (2009), Sechser (2010), Pfundstein Chamberlain (2016) and Sechser and Fuhrmann (2017) provide numerous empirical examples of how *compellence* and *coercion* fail.

Of course, several factors can influence these outcomes of compellence and coercion. The researchers have, using quantitative as well as qualitative methods, affirmed that strong powers, predominantly the U.S., have failed in their attempts to *coerce* and *compel* weaker states. Policymakers and scholars both realize that strong states fail against weak states.

Pfundstein Chamberlain's (2016) extensive study suggests a major changing point related to increased difficulty in succeeding with *coercive threats* coincides with the Cold War. She notes, insightfully, that the U.S. has increased the number of issued threats while at the same time attempting to lower pre-war estimates on the cost of the threat. These

findings suggest that the use of low-cost threats, or “*cheap threats*” as Pfundstein Chamberlain calls them, actually induce weak states to escalate against low investing strong states thus manipulating the pre-conflict cost-benefit calculation.

Although primarily investigating the value of airpower Pape (1996) expands on the manipulating costs and benefits to affect behaviour. He argues that a target state will resist attempts at coercion when the expected benefits of resistance exceed the expected costs of resistance. This might seem obvious but made it possible for him to formulate a simple equation where “*value of resistance*” is the factor whose product indicates if concessions by the target will occur.

Signalling has been considered a means for an issuer of *compellent threats* to show resolve and strengthen the power of the threats (Huth, 1999). In her article, Post (2019) sets out to investigate the signalling power of airpower relative the other two services and airpower's capacity to compel an adversary. Basing her study on MCT, Post argues that airpower shows limited commitment on the side of the issuer of compellent threats. Her study may seem easy to criticize, especially by those who hold the strategic might of airpower in high regard.<sup>5</sup> Still, Post has a point, perhaps not in having the lowest p-value but for questioning our views on the effectiveness of *compellence*.

The concept of resistance to *compellent threats* is intricate and is hard to define but needed in this study. Jakobsen (2011: p. 165) and Greenhill (2019: p. 17) use the terms counter-coercion. *Deterrence* or *resilience* against *compellent threats* is the mechanism at the centre of this study. Existing research does not fully explore the perspective of the *target* of *compellent threats*, giving us a one-sided understanding of *compellent threats* that we will address. Furthermore, we still have not ascertained that withstanding a *compellent threat* is an effective measure or at all possible.

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<sup>5</sup> This seems to be the eternal mantra of airpower theorists along with the air force community.

As mentioned above, researchers have concluded that compellent threats are fraught with failure and that previous theories and hypotheses may be erroneous. A *compellent threat* that fails is thus failure on part of the *initiator*. On the other hand, it can represent a *deterrence success* or a *deterrence failure* for the *target* state. This leaves us with unanswered questions: Strong states might have an increasingly lower success rate; but do states that resist actually achieve success? What explains that relatively weak states, which are targeted by such threats, manage to withstand them?

## 2.5 Studying coercion

There are 196 member states in the United Nations. Of these, ten to twenty states qualify as large states. This places the overwhelming majority of the world's states in the small states category (Neumann and Gstöhl, 2006: p. 3).

The Correlates of War (COW) includes 66 interstate conflicts post-1900 (Sarkees and Wayman, 2010). The MCT dataset outlines 242 acts of *compellence*. These numbers come as no surprise, since *deterrence* and *compellence*, for the most part, are used outside a war setting. The rationale for using *coercion* is to reach one's aims without having to resort to conflict and use brute force. The effectiveness of *coercion* is contested and actors can find themselves in undesirable situations because of failing attempts.

As mentioned in the introduction, IR research in the U.S. and the United Kingdom (U.K.) tends to focus on stronger states. This holds true also for research into *strategic coercion* for the same reasons. There is also an inherent difficulty in finding research as small states scholars often publish their research using their native language. Even when attempting to publish research in English language, such research fails to make it into more esteemed IR journals in the U.K. and the U.S. Therefore, this discourse is often missing in the mainstream IR debate (Neumann and Gstöhl, 2006: pp. 21–23).

Contemporary research suggests that smaller states increasingly do not comply with the will of stronger states (Art and Greenhill, 2018: p. 77). A number of scholars present evidence that this assertion is correct (Blechman and Kaplan, 1978; Petersen, 1986; George and Simons, 1994; Art, 2003; Sechser, 2011). Pfundstein Chamberlain (2016) argues that coercion and bargaining theory does not provide satisfactory explanations to why small states resist threats made by stronger states.

Arreguín-Toft (2009) presents two hypotheses that can be used to explaining these beliefs. The first suggests that certain weaker actors oppose old truths in the international system and reject the legitimacy of a strong states claim to rule them. The second suggests that strong actors are less willing to use their overwhelming “*killing power*” to achieve their ends. However, he does not explore how small states may use this to their advantage.

Handel (1981: pp. 217–256) has suggested that a shift from a pure military arena to an arena also including actions that influence the economy. The measure of the balance of power, therefore, needs to be wide enough to account not only for military power.

We need to take into account that there is selection bias in IR and coercion research. States that have been able to make an impact on the U.S. and U.K. will be studied more than states that have not. Keohane (1969: p. 310) illustrates this well by an analogy with the Lilliputians, who were able to withstand Gulliver. Furthermore, this explains why much effort has been assigned to researching conflict in Vietnam, Afghanistan, and North Korea while other conflicts without strong (western) power involvement have received less attention.

Key to the study of *coercion* is whether *deterrence* and *compellence* are successful or not, and how to measure the outcome. As previously mentioned, various forms of *deterrence success* are elusive to study as successful deterrence leaves little evidence (Quackenbush, 2010). Therefore, the validity is questionable and the reason why much research effort goes into deterrence failure is that it is more visible (Lebow and Stein, 1990). Carcelli and Gratzke (2017: p. 17) conclude that because of this, researchers are learning more about *deterrence failures* than *deterrence successes*.

Although being well categorised, *deterrence* may have several different natures. In the introduction to *Deterring Russia in Europe*, Rostoks (2019b: p. 8) rhetorically asks: “*What aspects of an adversarys behaviour are to be deterred?*” This is arguably an important question to ask as different aspects of an aggressors behaviour needs adapted means of deterrence.

We face a number of hurdles in this study. Research from the view of a weaker or smaller state being subject to *compellent threats* is uncommon. Furthermore, theory is biased towards the U.S. due to its Anglo-American origins and primarily deals with success of stronger states whilst weaker cases are only studied when the stronger states fail. Some of the implications are quite obvious. As we can see available theory is not always

tailored to fit the subject of this study; as a result, care must be taken in the use and application of available theory in this study.

A modern example of this ambiguity is the Russian threat and show of forces against Sweden in 2016, as it is debatable what the set of events actually constituted. Russian TU-22M strategic bombers flew repeated attack missions against the Swedish coast simulating nuclear attack; in the same year, Russia's foreign secretary warned Sweden that "*technological military action*" would be taken if Sweden joined NATO (Dagens Industri, 2016; Dagens Nyheter, 2016). At first glance, it seems that this was a *compellent threat* against Sweden. Russia issued a threat of military action against Sweden if it would join NATO, accompanied by signalling resolve by means of nuclear-capable strategic bombers. The problem was that Sweden had not stated that it was going to join NATO and the action actually swayed public opinion in Sweden in favour of the pro-NATO side (Giles, 2019). By not joining NATO Sweden unwillingly complied with the *compellent threat*. On the other hand, it might have been a demonstration of force aimed at deterring NATO. Whatever their intention Russia is likely to find it difficult to evaluate the effect of their coercive efforts.

Furthermore, the U.S. and Europe often treat Russian aggressions as *compellent threats*. The Russian point of view could just as well be that they are defensive moves aimed at *deterring* the West. Likewise, there are arguments that Russian interventions in Georgia and Ukraine aimed to stop EU and NATO expansion; in which case the actions can also be considered defensive (Rostoks, 2019).

Another factor occurring out of a Western perspective are actions to support popular revolutions, such as the colour revolutions in the early 21<sup>st</sup> century. These were not considered coercion but rather for the protection of the populations. Giles and Elis (2017: pp. 33–34) suggest that the Russian views such Western action as aggressive and considered them coercive action leading to changes in governments. These actions are considered illegal acts meant to lower Russian influence by instating regimes friendly to the West.

This leaves us without advice as to which role in *coercion* and *deterrence* the participants have. We need to carefully consider who the target of which threats are and what are the attempts at *deterrence* actually attempting to deter.

## 3 RESEARCH DESIGN

### 3.1 Perfect Deterrence Theory

Much research into *coercion* and *compellence* theory is founded in game theory, system analysis and the Rational Deterrence Theory (RDT), together with classical deterrence concepts such as brinkmanship and MAD as mentioned earlier. RDT and theories based on actor rationality are the subject of much debate. Even Schelling (1966) working with RDT, admits that irrationality could be a tool that seems rational, however, he does not approve of such use (Klinger, 2019: p. 92).

To attempt to rectify the shortcomings of RDT the Perfect Deterrence Theory (PDT) was developed (Zagare and Kilgour, 2000). PDT combines *rationality* and *credibility* to form a theory that better explains *deterrence*. PDT has not been created in isolation of previous research; it incorporates previous theory and research. PDT has its roots in Organski and Kugler (1981) *power transition theory* and is developed from the works of Huth (1989) and Powell (1990) (Sprecher, 2002).

PDT incorporates RDT rather than replacing it. The purpose of PDT is that “*It can be used to explore mutual, unilateral, and extended deterrence relationships[.]*” and “[...]was developed to overcome the empirical and logical deficiencies of classical deterrence theory.” (Zagare and Kilgour, 2000: pp. xx, 288) Their intention is for PDT to work in all settings including past, present and the future. The theory is not confined to relationships between nuclear states in a nuclear setting. PDT is a theory having fewer limitations and allowing for states to have distinct roles (initiator and target) which for example, RDT does not (Zagare and Kilgour, 2000: p. 142). Zagare and Kilgour (2000: p. 33) see PDT as fundamentally being a strategic version of game theory.

PDT differs from RDT in not assuming that actors are rational and follow a rational procedure for making decisions. RDT relies heavily on that individuals or decision-makers are at least intendedly rational in pursuing a payoff, a utility or a preference. It then uses alternatives in the form of a decision tree which in turn has outcomes of the choices (Allison and Zelikow, 1999: pp. 13–27). The actor will always choose the action with the largest payoff. In PDT, the individual rationality is replaced by focus on the rationality in the procedure after which the game tree and outcomes are more similar to RDT.

PDT has seemingly not caught on as the natural replacement and RDT is still the main subject of debate. As a successor, PDT remains in its shadow. Much effort still focuses on rectifying theoretical shortcomings of RDT while few scholars take an interest and test PDT. Zagare and Kilgour (2000) do address the shortcomings of RDT with support from other scholars. The dilemma is that most critiques of RDT suggest a plethora of directions for improvement.

Berejikian (2002) discusses the shortcoming of RDT and proposes the use of *prospect theory* together with RDT but he is careful not to dismiss RDT fully. Lantis (2009) discusses whether non-state actors are rational or irrational and suggests a shift from (*rational*) *deterrence* to *strategic culture* as a possible avenue of future research. Steinbruner (2009) argues that RDT and rational decision-making are useful to theory but too abstract and too distanced from real-world events.

Naming it PDT is not without controversy and Zagare and Kilgour (2000) are careful to point out that 'perfect' does not modify the word theory, rather it reinforces *deterrence*. Lawson (2013) points out this is not its only weakness. He is correct in that PDT has not been generally accepted and is left out of Morgan's (2003) summary of the field. Lawson (2013) suggests PDT could be improved with the use of insight from classical deterrence theory and that it fails to include certain aspects of *strategic coercion*. He also points out that Achen and Snidal (1989) make a valid point in that both classical theory and RDT need more realistic views on political decision-making.

Danilovic (2002) describes PDT as giving significant increase in the understanding of the consequences of *extended deterrence*. Quackenbush (2011) and Slantchev (2011) make up the strongest advocates for the validity of PDT. Quackenbush (2010), a proponent of PDT tests it against general deterrence using the militarized interstate dispute (MID) data set created by Ghosn et al (2004) and finds that the empirics support its predictions. Quackenbush (2006) uses PDT and finds its predictions supported by the study. Slantchev's (2005) analysis identifies shortcomings in RDT with its dichotomous nature of fight or submit which are not all available outcomes. Slantchev (2011) views PDT as an improvement over RDT.

Langlois and Langlois (2005) uses an approach similar to that of Zagare and Kilgour (2000). They suggest shortcomings in that the conflict outcome in PDT is a full out end-move which cannot be withdrawn from. Their findings discard the tested *one-shot*

*asymmetric deterrence game* but suggest multiple-run challenges can change the outcome between the same actors.

Sörenson (2017) sets out to analyse the proponents' and opponents' views on PDT and suggests that it does complement the research field and improves our understanding of it. He argues that different models do not compete with each other but rather make a whole, an idea, which we subscribe to.

In its present state PDT is rejected by some scholars while others see it as a welcome supplement to existing theory. Whilst aware, that PDT has flaws and has not been extensively tested, it will be used in conjunction with established empirical data which will help us to identify the weak parts of the theory.

PDT is selected as the main theory in the study, even if it is not a fully perfected theory. PDT does provide central concepts that are useful in the test of *compellent threat* situations. It gives us accepted models in *game theory* that we can develop, and it provides ideas of *rationality* and *credibility* are applicable. PDT attempts to address RDT of the shortcomings, which gives us an evolved tool which can provide novel insights and also requires validation through empirical use.

*Rationality* and *credibility* are the central parts of PDT, while it avoids the traditional constraints of the rationality associated with RDT. The basis for RDT is *procedural rationality* and a *rational actor*, while it leaves *instrumental rationality* representing *rational choice* out of the equation. What constitutes a rational threat is therefore dependent on which definition of rationality to which we subscribe. In PDT, the emphasis is on the connection between *rationality* and *credibility* using *instrumental rationality*. A threat being *rational* equates with the threat being *credible*. PDT assumes that retaliation to threats is allowed and that there is an existing preferential structure (Zagare and Kilgour, 2000).

More importantly to this study, PDT accepts that an *initiator's* threat can be deterred with the *target* lacking *threat capability* as the *initiator* can be unable to deter the *target* from resisting a threat (Zagare and Kilgour, 2000: p. 300).

*Credibility* is especially important in deterrent threat situations since it forms the basis for how a *target* will evaluate a threat. For a target to *rationally* be able to believe a threat it needs to be *credible*; therefore, they are interconnected in PDT. Conversely, *incredibility* to the target's ability to withstand the threat affects the initiator's choice. In PDT

*credibility* is a continuous variable as is *capability*. In *deterrence* and in *coercion* the central factors are *credibility* and *capability* (Zagare and Kilgour, 2000: chap. 10).

### 3.1.1 Capability

*Capability* in the form of *threat capability* is the only essential condition for deterrence success. The definition of *capability* is quite simply the ability to hurt. *Capability* is not a static condition as it can be pre-empted by a first strike. This, in turn, would require a second-strike capacity for successful deterrence. This concurs with Mearsheimer's (1983: p. 64) theory that the use of a *blitzkrieg* strategy is likely to cause deterrence failure (Zagare and Kilgour, 2000: pp. 290–291).

*Capability* in PDT has two dimensions one physical and one psychological. The physical dimension is the capability to carry out a threat. The psychological dimension is the opponents cost assessment, weighing the cost of doing nothing as compared to resisting.

### 3.1.2 Status quo

*Status quo* proves to be an important factor. If states are satisfied with the prevailing *status quo*, the risk of escalation is low. Conversely, if one state is unsatisfied with the *status quo* they will attempt to change it depending on cost and utility. It is the evaluation of the *status quo* that is central. The evaluation is based on all factors not just those under a would-be attackers control.

### 3.1.3 Credibility

In PDT, *threat credibility* is seen as the ultimate decisive factor for deterrence success. The basis for *threat credibility* is “*the norm of reciprocity*” (Zagare and Kilgour, 2000: p. 296) that is that actors will respond to each other’s actions in turn. This reflects back to *threat capability* since without it *credibility* will not work. Reciprocity in itself also demonstrates *credibility* and the lack of it demonstrates the opposite. We also have to keep in mind that reciprocity can be both in the form of reciprocated conflict or cooperation.

### 3.1.4 Generalized Mutual Deterrence Game (GMDG)

*Game theory* is a mainstay in deterrence research. Schelling (1966), Snyder (1971) and many other scholars rely on *game theory* for their research and for developing theory. In

its simplest form, the game of *chicken*<sup>6</sup> starts out with two players and one event with different outcomes. Several different games have been developed and used over the years attempting to describe different aspects of conflict and deterrence situation. The models used have evolved and become increasingly complex and game models exist for a number of varying scenarios (Schelling, 1966). Game theory does have limitations; it presents a static demonstration of a part of a much larger chain (Klinger, 2019). The statistician, Box (1979), pragmatically described that “*all models are wrong but some are useful.*” This means that we are not trying to do an exact representation but rather a useful one. Schelling (2012) aptly clarified game theory not as a solution but a tool: “*Game theory is the study of strategic thinking.*” Zagare and Kilgour (2000) remind readers that game theoretic-models are inherently empty and need to be filled with substance and that such substance is malleable.

Within game theory, the game shows us two parts: the game tree and the outcomes or payoffs. The actors play order is shown in the tree and the outcomes show the possible results (Powell, 1990: p. 187). There are theoretical possibilities to have infinitely long game trees with a myriad of outcomes. This is common especially if one studies chains of decisions and outcomes. The value of the model lies in the general theory rather than in its specifics. In order to harness the descriptive power of game theory we generalize from it while not using it to provide explanatory power (which it does not).

The advantage of defining the situation with game theory is that we can identify and frame the settings for the subject we are studying. By applying it to *compellent threats*, it is central to defining our actors, variables, and dependencies.

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<sup>6</sup> It refers to a contest where two persons would speed their cars towards each other on a collision course. The loser was the one who veered first and the winner was the one who did not veer. If no one veered, the outcome was potentially worse even though no one lost.

Zagare and Kilgour (2000: p. 315) present the Generalized Mutual Deterrence Game (GMDG) which we use as a starting point in defining this study. The model represents a number of given assumptions relating to players in a threat situation. Zagare and Kilgour (2000: p. 137) describe GMDG as a *real-world structure* as it is to be used to represent real-world events.

In a GMDG player A chooses to either co-operate or defect. Player B is unaware which option player A will choose. The horizontal line connecting two player B decision points illustrates this. There are three nodes (turns) and six outcomes. The outcomes are: A wins, B wins, status quo maintained and three escalations into conflict, see Figure 2. Using a segment of GMDG we can describe a *compellence game* to define the situation we wish to study.

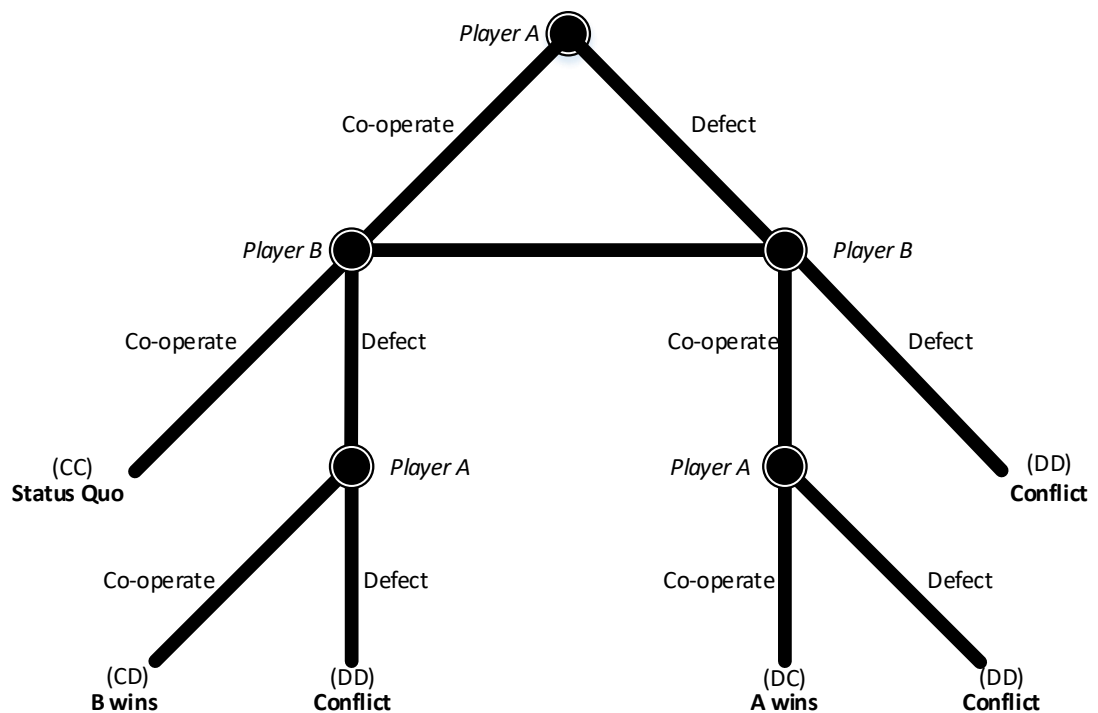


Figure 2 – GMDG. Source: Zagare and Kilgour (2000).

### 3.2 Research method

Research into *coercion* and *compellence* is more comprehensive than research into general *deterrence*, as they are considered easier to study (Greenhill and Art, 2018: pp. 10–13). Greenhill and Art (2018: p. 13) argue that it is possible to bring insights learned from state actors to bear on non-state actors well. Therefore, a careful analysis of the results is needed to identify what constitutes the practical and theoretical findings.

What stands out in previous research is the one-sided focus on the *initiator* while little analysis is done of the *target* in cases of *coercion*, and the focus on *deterrence failure* in conflicts. If we accept that these theoretical boundaries are constructs that help define research, we can take advantage of theories across the spectrum. This is what we want to do in this study. *Compellence* consists of several definable steps, which we use to focus our study. This also accentuates the importance of strong research rather than correct definitions.

In this study, we find that there is not a clear-cut line between *deterrence* and *compellence*. Sperandei (2006: p. 277), who explores the possibility to bridge *deterrence* and *compellence*, describes it as “*separate halves of the same coin.*” She argues that the interconnectedness of the two needs to be taken into account when formulating policy or theory.

### 3.2.1 Research methods

In research, comparative case studies and statistical analysis are commonly used to test the assumptions of RDT (Huth, 1999). Large-n and case studies (small-n) are considered equal and it is the project which shall determine which of the two is the stronger (van Evera, 1997). Both methods have merits and contemporary research often combines different methods, as done by Sechser and Fuhrmann (2017). There is also a middle road using a medium-n study.

We must take into consideration that much of what holds true in political sciences holds true for war sciences: Research in the field of war studies should provide general knowledge which can be used to bridge the gap between research and politics (George and Bennett, 2005).

First, the comparative case study method is often used and feasible for this subject of study. However, when we examine readily available cases for comparison, we find a large diversity between the cases and the actors within the dyads. Therefore, case selection will strongly influence the aim and outcome of such a study. With this method, we must question how well our results can be generalized onto cases outside the study and the applicability for future coercive episodes.

Second, in between the comparative case study and the large-n study, we find the medium-n<sup>7</sup> study. The number of cases can be limited to within the applicable range. With a medium-n study, we can study particular parts of coercion or particular cases of compellent threats without being limited to very few cases and without the generality of a large-n study. For the intents and purposes of this study, a medium-n study is feasible since it strikes a balance and provides a bridge in explanatory power between the general and the precise. It will, however, lack the explanatory power to distinguish several successful from several unsuccessful cases of compellent threats, and is dependent on a limited selection of all available cases. In addition, the time to gather thorough information on a larger amount of cases is at the limit of the time available for this study. The third method is to use large-n method with empirical data that has been previously collected for the study of *compellent threats*, but with different approaches. The advantage of the large-n study method is that a large number of cases enables us to generalize across other single cases of compellent threats. The drawback of the large-n study is that the results cannot explain the inner mechanisms, but rather explains how certain factors affect an outcome. Therefore, special care must be taken not to draw too far-reaching conclusions.

### 3.2.2 Method selection

In this study, we want to investigate *targets of compellent threats* based on which factors are important to deterring such threats. Therefore, the large-n method is sound and is selected as the method of the study. Large-n data research requires tools to analyse the empirical data thus we use statistical methods to validate our findings. By combining descriptive statistics and logistic regression, we are able to analyse the data from different

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<sup>7</sup> Medium-n method is 10-50 cases in this example.

perspectives and even show if some variables have high significance for the outcome of events.

In the scope of this study, compiling own empirics from available first-hand sources is difficult since cases of compelling threats are difficult. This is true especially when a larger state has failed in a compelling threat against a weaker state. Thus, data can be contaminated by attempts to save face to some extent.

Extending the work of previous researchers using quantitative data is, therefore, a reasonable way forward.

There is, of course, the problem with selection bias. Studies often have research designs that have chosen immediate deterrence crises as they are more visible. This is a problem that affects both qualitative and quantitative designs (Carcelli and Gratzke, 2017).

### 3.2.3 Binomial logistic regression and exploration of descriptive statistics.

Quantitative methods are used in the study by applying explorative statistic methods and binomial logistic regression. These methods are used to explore a dataset constructed from different data sources to test hypotheses developed from PDT.

Mathematical analysis is common in security studies, as long as we bear in mind that the variables used are not a substitute for the context of the situation. We have to consider that the method does not pretend to explain, nor can it explain the multitude of subjective variables and factors which effect the essences of decision-making (Bloomfield et al., 1976). Intervening variables exist between the *initiator* and the *target* in the form of assessments and perceptions. We, therefore, base the study on measurable variables which we can clearly distinguish. This does not preclude the possibility of studying the effect of the factors used in this study on a general outcome. It does limit the conclusions that can be drawn on actors' perceptions and assessments.

Using descriptive statistics, we can identify patterns in historical, political, military, and economic variables as well as compare them with previous studies in the field. Achen (2002) argues that important empirical generalizations in the field have not been the result of high-powered methodological research, rather it has with few exceptions been found through cross-tabulation and graphs involved in descriptive statistics.

Using logistic regression gives us the possibility to test multiple variables and their effects on the outcome of the dependent variable and thereby validate results. Furthermore, it allows for the mixed-use of continuous or binomial values even if they are not neatly distributed, which is the case in the available data. The method measures the effect size which is the relationship strength between two variables. The method delivers the result as a probability, p-value, where 90% confidence is the significant level of probability. A further benefit of logistic regression is that we can also investigate and test for covariation between variables, which allows us to better understand relationships between variables.

In the results from the logistic regression, we find the terms R-squared ( $R^2$ ), standard error (S.E) and significance.  $R^2$  and S.E. are so-called goodness-of-fit values in statistic regression. These help us measure how well the independent and dependent variable correlate with each other.  $R^2$  is a relative measure of the dependent variables variance from the regression line. S.E. is an absolute measure of the distance a data point on average occupies from the regression line. Significance is when an independent variable change correlates with changes in the dependent variable expressed in per cent. When an independent variable indicates significance it shows that it and the dependent variable are in correlation and that it is unlikely that variation is random.

### 3.2.1 Data sets on compellent threats

There are a number of usable data sets available for the study of conflicts and coercion. Most such datasets consist of data on conflicts that have escalated to include the use of force. In order to study the successful *deterrence of compellent threats*, we need to include cases where these threats have not all escalated into conflict.

Some scholars have put considerable effort into creating datasets of *coercive* and *compellent threat* cases. These specialized datasets are well suited to be adapted for this study. By using an available data set we are able to test our own conclusions to previous research that used similar data. Furthermore, it allows this study to be compatible with and used as a reference in future research. We do however need to define what aspects we are investigating in order to select applicable data. As we are investigating resistance of *compellent threats*, we need a data set with variables which allow us to identify such specific cases.

A dataset used for the study of compellence was developed by Pfundstein Chamberlain (2016); this dataset only includes cases where the U.S. is the stronger power. The use of this data set would limit the study to investigating the small states' resilience to compellent threats from the U.S.; therefore it cannot be used to generalize across cases other than those involving the U.S.

*Military Intervention by Powerful States, 1945-2003* (Sullivan and Koch, 2009) is a data set that investigates military interventions by stronger states but it does not allow us to exclude cases where threats are not followed by force. Therefore, we cannot use it to select *compellent threats* which discriminates this data set.

Sechser (2011) identified and researched the *Militarized Compellent Threats, 1918–2001* (MCT) data set. The data allows us to select success and failure of compellent threats. It contains data on the escalation of force and casualties resulting from these episodes and encompasses compellent threats issued from a number of different states, which allows for good generalization.

The ability to investigate the targets' compellent threats issued between states is essential for this study. Sechser's data set therefore provides the best fit for this study and is therefore selected as the base of the study. Other datasets can provide empirical data for use as variables in this study.

Sechser's MCT dataset has 242 dyadic entries consisting of 210 episodes of compellent threats. (Sechser, 2011) Connected to each dyad entry are a number of variables pertinent to compellent threats such as what kind of demand the threat contained, if there were demonstrations and uses of force as well as the outcome. The data set is applicable for a large-n statistical study and has the advantage that it has been tested and is proven to be empirically sound. It is described by Downes (2018: p. 101) as the (to date) most comprehensive data set of *compellent threats*.

The MCT data set is used for exploring different aspects of compellent threats. The findings of Sechser (2018) and Post (2019) provide insight into and serve to test the robustness of the MCT data set. Their research enhances knowledge about factors affecting *targets of compellent threats* and is used to focus research in this project.

In the MCT data set, Sechser (2011) has removed cases of potential *compellent threats* consisting of *fait accompli* situations. This occurs when an initiator can turn the table

before the issuance of threats or before the target can react. These *fait accompli* are similar to *limited objectives* and *blitzkrieg* as described by Mearsheimer (1983).

A possible weakness in the case selection for the MCT data set is that *compellent threats* are *deterrence failures* from the start which could impact negatively on *deterrence* after the initial threat. This is however unavoidable since we investigate *compellent threats* and makes comparisons between *compellence* and *deterrence* difficult.

The MCT data set is limited in the number of cases due to the requirement of containing a *compellent threat* situation. *Compellent threats* are not that common. A cross-sectional year-country analysis of the available sample would contain up to 196 countries and 83 years which equals about 16200 observations (not counting dyadic interactions). Of these 16200 observations we use 242 identified *compellent threats*.

By adding data from pre-existing sources to the MCT data set, we form a new set used in this study. Special care is taken to select data relevant to *compellent threats* cases and that are applicable to the study. There is a large amount of data which we can use as relevant variables in the study. We have to understand the origins and scope of the selected data, as failure to do so can lead to errors both in analysis and conclusions. Furthermore, the data sets need to consist of variables that contain correct information and are in a format that is compatible with the base of the MCT data set.

### 3.2.2 How is the theory applied to the research problem

In this study, we use PDT to examine the outcome of *compellent threat* situations. We do however need to be careful to create an approach that will take into account the *target* perspective and not just create an opposite measurement to previous research into the *initiator*. We, therefore, need to identify variables that are connected with the *targets* outcome.

Sechser (2010: p. 652) lists a number of testable implications to why the U.S. and powerful states fail in coercive bargaining: Their ability to project power, states in close

geographic proximity will make less effective threats<sup>8</sup> and that states that frequently issue *compellent threats* are more likely to fail.

Arreguín-Toft (2001), Sechser (2010), Pfundstein Chamberlain (2016) and Sechser and Fuhrmann (2017) provide evidence that states find *coercion* difficult. They have tested several factors and developed theories and hypotheses which frame why the issuers of such threats fail. In this study, we expand on their findings and explore further factors and their interactions that can affect the outcome.

Arreguín-Toft (2001: pp. 121–122) concludes that strong actors lose in conflicts because they do not use an “*opposite-approach*” when there is a large asymmetry in power. Furthermore, he validates that balance – relative material power – will accurately predict conflict outcomes. Small actors should also turn to indirect approaches when in conflict with a strong actor. Arreguín-Toft goes on to suggest that the U.S. and stronger powers are recommended to prepare their population for long wars despite advantages and the use of counterinsurgency tactics with special forces. However, we still have to address the fact that stronger powers do not have sole interests and rather have multiple obligations. Arreguín-Toft (2001: p. 96) reduces strong states power by half to compensate for these factors in his study.

For the target of the compellent threat, the military capability - or rather military balance - is believed to be important. The dilemma facing us is that this is partly disproven when using military capabilities data sets<sup>9</sup> and that even 10:1 force ratios are not enough. Therefore, we need to investigate further along similar lines to see if case selection bias can have had an effect on the outcome.

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<sup>8</sup> This actually indirectly contradicts Arreguín-Toft (2009: p. 209) who found that closeness in culture, language, social class and language the more likely to invest enough in compellent threats. These factors are often closely connected with geographic distance.

<sup>9</sup> See Arreguín-Toft (2009)

In Posts (2019) study using the MCT data set, she finds that air signals have a negative effect on the outcome when conducting compellent threats as they are perceived as a cheap means of military signalling for powerful nations. Powerful nations often work to minimize the cost of coercive bargaining as shown by Pfundstein Chamberlain's (2016) findings. For example, in situations where military land power is close to a target of a compellent threat could provide a stronger but less expensive mean of signalling. The projection of the threat, therefore, related to cost and capacity needs to be taken into account.

Through Pape (1996), Sechser (2018) and Post (2019) we know that the projection effect is important. In this study, we will continue research by analysing displays of force, signalling, and other factors that affect projection and receipt of threats.

For this study, the implication is that stronger state's available military power suffers from the number of obligations and alternate interests. Therefore the cost of sending a small number of troops can have a higher cost than if seen as independent action. Researchers claim that the balance of power is important for the outcome but results are ambiguous as the influence of the distance between the target and the initiator is unclear. This distance or difference does not have to be physical, it can also be economic, social, political or any other dividing factor. Therefore, our study will include how some of these differences in balance of power affects the outcome.

This study gains focus by taking into account the works of Arreguín-toft (2001), Sechser (2011, 2018), Pfundstein Chamberlain (2016) and Post (2019) as their findings help improve focus. It investigates factors that are tied to *target* and *initiator* state's, and are assessed to have impact on the outcome of the *compellent threat* situation.

### 3.3 Operationalization

In the study, we use game theory to frame the problem, use PDT to operationalize the variables, and statistical methods to analyse the data.

#### 3.3.1 Framing the problem

The subject of our study, resistance to *compellent threats*, can be better understood if we describe it as a sequential chain, just as in GMDG. In this case, we use an iteration of Sörenson's (2017: pp. 204–205) proposed a sequential deterrence model to describe *compellent threat* mechanics.<sup>10</sup> A similar “*framework for coercions*” is used by Sechser and Fuhrmann (2017: p. 28) containing one less node.

In our *compellence game*, we start out with the *initiator* and the *target* in a *compellent threat* (and *deterrence failure*) situation within node 1. The target of our study is the *target's* choice in node 2 and subsequently the *initiator's* reaction to the *target's* choice making up node 3. In the game scenario, the preferential structure stipulates that the outcome can be the *initiator's* preferred outcome, universally less preferred outcomes, or the *target's* preferred outcome.

The sequential preferential structure we use is based on Zagare and Kilgour (2000). First, we know that the *initiator* has issued a demand associated with a threat of force, the objective being to change the *status quo*. There is, therefore, a pre-commitment where the *initiator* has selected to issue a *compellent threat* before *target* action. Second, we know that the *initiator* prefers that the *target* concedes rather than remaining at *status quo ante*. The *initiator* also prefers *status quo ante* over conflict. The *initiator* initially believes that the target will concede to the threat without conflict. Third, the *target* prefers

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<sup>10</sup> Sörenson (2017) uses GMDG in his analysis.

*status quo ante* to all other outcomes and conflict over concession. Finally, the *target's* principal objective is *deterrence* see Figure 3.

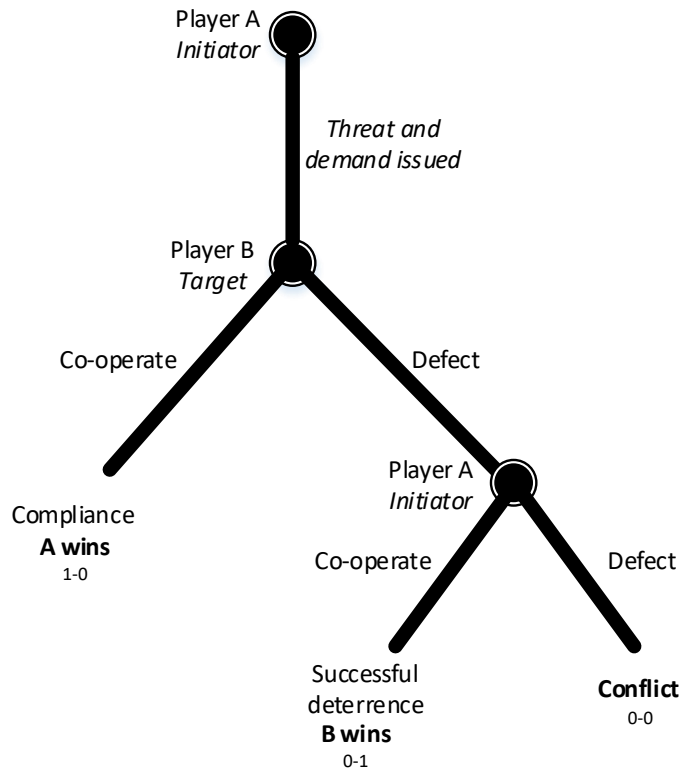


Figure 3 - The compellence game (variation by author)

There are theoretically three outcomes and only one is preferred for the *initiator* (1—0) of the *compellent threat* while the two other are negative: Escalation into conflict (0—0) and withdrawal of the threat (0—1). Likewise, the *target* of the *compellent threat* has a similar but reversed set of outcomes. However, the target has the advantage of being able to defer, what Schelling (1966: p. 44) calls the “*last clear chance*”, back to the initiator which potentially poses an advantage. Schelling recognizes that threats have a flaw in leaving the “*last clear chance*” to steer clear of the conflict resting with the coercer even if it endangers both sides (Schelling, 1966). This makes the nature of the model slightly advantageous for the target.

The game model is important in that it lets us set the terms for what we consider *successful deterrence* of a compellent threat (0—1) and thus defines our dependent variable.

The sequential game model is one where the *initiator* and *target* take turns and in which there is limited knowledge on what the opponent will choose. By having more than two

sequential nodes (choices) it allows for coercive bargaining and thus *compellence*. The two actors' preferences are known to themselves while the preference of the opponent remains unknown. This does not preclude that the actors make assumptions on their adversaries' preferences. It also allows for the possibility for an actor to bluff, either as an *initiator* or as a *target*.

### 3.3.2 Models and hypothesis

In order to evaluate the outcome of *compellent threat* situations we use four models. The first model is used to explore physical threat *capability* in itself by analysing successful deterrence, the dependent variable, with the difference in military power between the initiator and the target. The second model sets out to investigate factors related to the *initiator* of the *compellent threat* to examine if selected factors affect threat credibility. The third model explores factors in the *target* of *compellent threat* that can affect threat credibility. Finally, the fourth model consists of all variables.

To be able to use our models we generate hypotheses, which we test. The fit between the models and hypothesis are important but cannot be allowed to overpower the actual results.

**h1:** The outcome of *compellent threats* is dependent on the relative power, *capability*, between *initiator* and *target*.

In military circles, a 3:1 ratio is commonly accepted as the minimum for a successful offence. As a rule of thumb it is accepted but to accept it as a theory is unwise as it says little of qualitative measures or over which spectrum it is measured<sup>11</sup>. Arreguin-Toft's (2001) study suggests that even a 10:1 military advantage between larger and smaller states the outcome of war and coercion is uncertain. Sechser (2010) suggests that

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<sup>11</sup> For a discussion on force ratio see Mearsheimer (1983: p. 222).

powerful states make less effective compellent threats that can be due to difficulties in power projection.

According to PDT military power, or rather *capability*, should provide much of the leverage in the situations we are investigating. We do, however, need to take into consideration factors that affect the amount of *capability* that an *initiator* can bring to bear on a *target*.

**h2:** The *initiator* of a *compellent threat* is helped positively by factors that signal its relative power superiority.

PDT stipulates that *credibility* is needed in tandem with *capability*. Therefore, we must identify factors that can increase the *initiators credibility*. In this study, we assume that *credibility* is enhanced by demonstrating *capability* and being part of a coalition issuing the threat. The credibility to allocate force is believed to be reduced if the *initiator* is involved in other conflicts.

Interestingly, Post (2019) finds that *initiators* consider airpower signalling as low cost and highly effective, in reality, it has low signalling value which is supported by Pfundstein Chamberlain (2016). Therefore, demonstrations and show of force actions need to be further studied.

**h3:** The *target* state's situation and relative distance to the *initiator* affects its deterrent *credibility* positively.

We study factors that affect a *target* state's credibility. We expect *credibility* and *capability* to be lower if the *target* is involved in other conflicts. We also expect them to be higher if *targets* government system is at a similar democratic level as the *initiator*. Finally, if the *target* is close to the *initiator* in economic level *credibility* rises.

One of Mearsheimer's (1983) conclusions is that geographic distance is a key limiting factor in deterrence outcomes especially due to needing transport overseas. Walt (1987: p. 24) expands on these conclusions and suggests that power projection also diminishes with distance which is why close countries are better at projecting power. Sechser (2010: p. 652) on the other hand argues that states who are geographically close issue weaker *compellent threats*. These conflicting views on distance are important to study as new forms of threats and weapons arguably are boundary-less.

Researchers suggest that emerging domains and methods reduce this gap. Furthermore, distance in language, democratic values, religion and other traditional social factors affect understanding and credibility. Two states that are close in societal factors are likely to be capable of a more correct evaluation of *capability* and *capacity*.

### 3.3.3 Empirical data

The base data and the *dependent variable* are developed from Sechser's (2011) MCT dataset, but adapted to focus on the *target* of the *compellent threat*. The data is MCT code number, initiator state, target state, and year. Sechser's MCT data is used in the development of the *dependent variable*.

When examining the original MCT dataset from the point of view of the *target* of the *compellent threat*, we expect to find interesting aspects that may challenge what we know about failures in issuing compellent threats.

Arreguín-Toft (2009) suggests that there was a significant change in outcome in coercive threats after 1950. Furthermore, Pfundstein Chamberlain (2016) arrives at a similar conclusion in her study of compellent threats issued from the U.S. in the period 1945—2007. Sechser and Fuhrmann (2017) come to similar conclusions in their book. Furthermore, 1949 was the year that the Soviet Union acquired their first nuclear weapons. However, the MCT data set comprises cases from 1918—2001 that means cases before the advent of nuclear weapons and the Cold War.

Because research indicates that the character of *coercion* changed with the advent of nuclear weapons in the latter half of the 20<sup>th</sup> century we discard cases before 1950. Considering the fact that the 9/11 attacks in 2001 changed American posture driving the sole superpower into a continuous offence, named the war on terror, against a non-state actor. This affected other states as well and we expect a shift in the conduct of compellence due to this open conflict. Therefore, for an initial generalization after which we strive, 2001 is a reasonable end date. For these reasons, we base this study on cases of *compellence* between 1950 and 2001. The modified MCT between 1950—2001 consists of 112 dyads and 109 compellent threats. This does reduce the population of cases but not to an extent that is expected to corrupt the findings. Rather the aggregated data 1950—2001 give a more realistic insight into the state of coercion and compellence in the setting of the study.

To increase the validity of the analysis we attempt to find datasets that are well recognized and widely used for research in related fields. The datasets used also need to be compatible with the modified MCT data set.

*COW National Material Capabilities dataset v4.0* (NMC) is used to explore the relative capabilities of the *challenger* and *target* (Singer et al., 1972).

*Alliance Treaty Obligations and Provisions, 1815—1944* (ATOP) data set is used to find military alliances to which the actors belong (Leeds et al., 2002).

UCDP Dyadic Dataset version 19.1 is used to identify occurrences of internal and external conflicts in target and initiator (Harbom et al., 2008; Pettersson et al., 2019).

*The (Varieties of Democracy) V-Dem [Country–Year/Country–Date] Dataset v10* (V-DEM) is used to measure the difference in democracy between actors (Coppedge et al., 2020; Pemstein et al., 2020).

*Correlates of War Project Direct Contiguity Data, Version 3* dataset is used for determining how target and initiator border each other (Stinnett et al., 2002).

*The Quality of Government Standard Dataset, version Jan20* (QoG) dataset is used to source and find available data sets (Teorell et al., 2020).

### 3.3.4 Dependent variable

The dependent variable is defined as the outcome *successful deterrence* [deterrence]<sup>12</sup> in the previously-described compellence game, see Figure 3. The dependant variable also has to be compatible with the described *preferential structure* where the *target* rejects a *compellent threat* and the *initiator* does not follow through with the threat (0—1 in figure 3).

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<sup>12</sup> Words in square brackets are the variable identity in the study's data set.

This is the most beneficial outcome for the *target* and consists of three factors where: First, the *target* does not have to comply with demands; second, there are no casualties; and finally, the situation does not escalate into armed conflict.

These three factors are used to operationalize the dependent variable. The dependent variable is created by using the MCT variables *compliance*, *force* and *target fatalities*. When these three variables are zero (0) the dyad is coded as one (1) signifying successful deterrence of a compelling threat.

### 3.3.5 Independent variables (factors)

The selection of variables are based on *threat capability* in model 1, and *threat credibility* resting in both the *initiator* and in the *target* making up model 2 and model 3.

*Threat capability* [capability] is the absolute necessary condition for deterrence success. In this study, we use the physical aspect of *threat capability* as the baseline for model 1 to explore h1. The *target's* Composite Index of National Capability (CINC) in relation to the *initiator's* CINC is therefore pivotal to the outcome of the analysis and included in all models. CINC is by no means a complete or detailed measure but it does give a quantitative indication of a country's military power. It does not allow for close comparisons but it does have the power to show asymmetries in strength. The value tested is the difference in CINC between *initiator and target* modified by whether the two parties have a land border or not. If they do not have a land border the ratio is reduced to a fifth. If the countries share a land border the ratio is reduced by half (Singer et al., 1972; Stinnett et al., 2002).

In *model 2* we evaluate impact on the deterrence outcome based factors that affect *credibility* residing with the *initiator* relative **h2**. Factors residing with the *initiator* are its membership in an alliance, the demonstration of force and the involvement in other conflicts, internal or external.

Membership in an alliance [*alliance\_a*] is a dummy variable coded 1 for membership and 0 for non-membership (Leeds et al., 2002).

Demonstration of force [*demonstration*] is available in the original MCT data set (Sechser, 2011).

Involvement in conflicts [*conflicts\_a*] is expressed as the number of conflicts the *initiator* is involved in. The value is the sum of three UCDP data sets in the QoG standard dataset

consisting of internal, international and internationalized internal conflicts (Harbom et al., 2008; Pettersson et al., 2019; Teorell et al., 2020).

In *model 3* we evaluate impact on the deterrence outcome based factors that reside with the *target* as described in **h3**. Factors residing with the *target* are the involvement in other conflicts, internal or external, difference in democracy rating and if the military threat has to project over a body of water.

Involvement in conflicts [conflicts\_b] is expressed as the number of conflicts the *target* is involved in. The value is the sum of three UCDP data sets (Harbom et al., 2008; Pettersson et al., 2019; Teorell et al., 2020).

To measure the difference [democracy] in democratic values we use the Varieties of Democracy project (V-Dem) data. The value tested is the difference in ratio of V-Dem deliberate democracy between the *target* and *initiator* (Coppedge et al., 2020; Pemstein et al., 2020; Teorell et al., 2020).

To measure the impact of economic strength [economy] we use the ratio of gross domestic product (GDP) per capita between initiator and target (Gleditsch, 2002).

In *model 4* we test all independent variables against the dependent variable in order to have a comprehensive analysis of what affects successful *deterrence*.

## 4 ANALYSIS/RESULTS

### 4.1 Descriptive statistics

Exploring the data we identify factors, which can contribute to the outcome in compellent threat situations. Using the aggregated MCT 1950—2001 data set there are 112 compellent threat dyadic entries and 98 compellent episodes. Through our *dependent variable*, we find that there are 23 dyads (20 episodes) in which the target successfully *deterred a compellent threat*, see Figure 4. Table 2 lists the 23 dyads with successful deterrent outcome from the point of view of the *target of compellent threats* that also constitutes the *dependent variable*.

We continue to explore the data, using the *compellence game* outcomes as a model to compare the outcomes. *Target* success occurred in 23 dyads out of 112 entries, which equates to 20.54%. The opposing result, where the *initiator* achieves full *compliance* with no use of force, and no casualties occurred in 25 out of 112 dyads (22.32%).<sup>13</sup> This indicates that the most favourable outcome for the *initiator* or the *target* occurred in 42.86% of the cases. This leaves 57.14% of the dyads in outcomes that are unfavourable to both *initiator* and *target*.

Historically we do find an increase in the linear mean of *compellent threat* episodes but not at a rate that suggests an increase relative to the total number of threats. In this exploration, we reduce dyads into episodes. In 20 out of 98 episodes where *deterrence of compellent threats* is successful, these are spread over the half-century in a manner that does not support the findings that there is a significant increase in the number of threats

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<sup>13</sup> Partial compliance with no use of force and no casualties occurred in four dyads. Full compliance to demands, occurred in 35 out of 112 dyads (31.25%) and partial or full compliance occurs in 42 out of 112 dyads (37.5%) when discriminating use of force and casualties.

being resisted. Furthermore, the data does not indicate a noticeable shift in the post-Cold War setting.

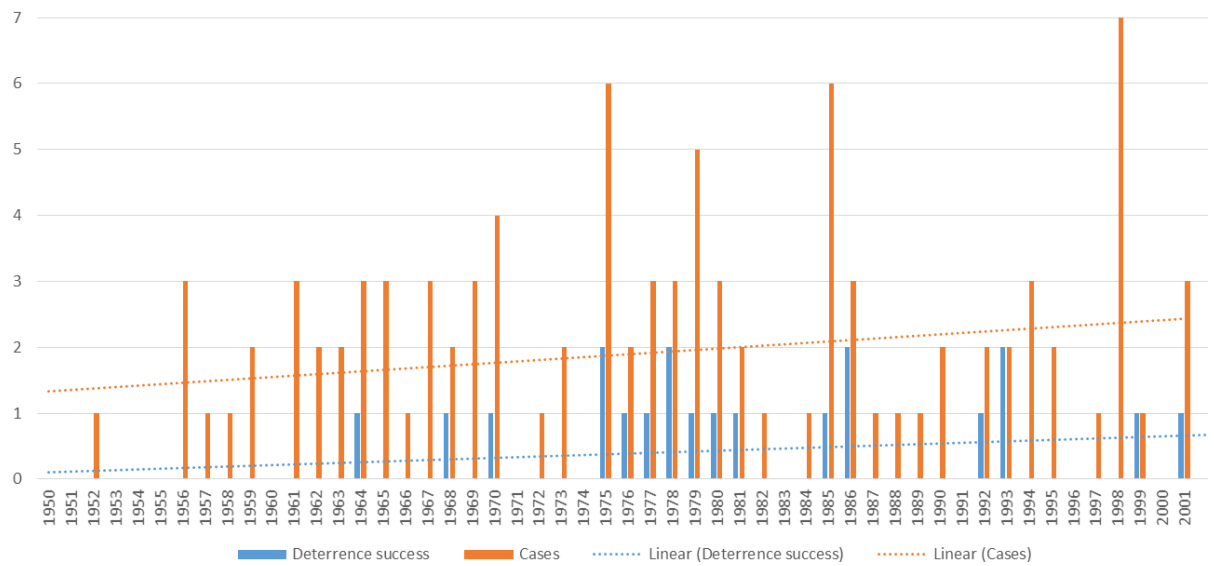


Figure 4 - Deterrence success and total episodes

We do find that permanent members of the United Nations Security Council (UNSC) have been involved as *initiators* in three episodes<sup>14</sup> of successful *compellent threats* see Table 2. In the remaining dyads, Israel is the sole nuclear power that has been successfully *deterred* (MCT-172). In two of the successful *compellent threats* episodes we see a coalition of *initiators* (MCT-192 and MCT-207). In the case of the U.S., this indicates that the outcome has been fully beneficial for the *target* in two out of 17 (11.76%) issued *compellent threats*. Conversely for the U.S., the *compellent threats* have been completely successful in six out of 17 (35.29%) issued *compellent threats*. This suggests that successful *deterrence* of *compellent threats* are less common than U.S. success.

<sup>14</sup> MCT-192 three dyadic cases constituting one episode of compellent threats. All three initiators are permanent members of the UNSC.

*Table 2 - Successful deterrence of compellent threats*

<b>MCT code</b>	<b>Initiator</b>	<b>Target</b>	<b>Year</b>	<b>Deterrence</b>
MCT-128	Turkey	Cyprus	1964	Success
MCT-138	United States of America	North Korea	1968	Success
MCT-145	Iraq	Jordan	1970	Success
MCT-150	Libya	Oman	1975	Success
MCT-155	Algeria	Mauritania	1975	Success
MCT-156	Iraq	Syria	1976	Success
MCT-158	Argentina	Chile	1977	Success
MCT-161	Israel	Syria	1978	Success
MCT-163	Nicaragua	Costa Rica	1978	Success
MCT-165	Russia	China	1979	Success
MCT-171	Syria	Jordan	1980	Success
MCT-172	Israel	Syria	1981	Success
MCT-177	Libya	Tunisia	1985	Success
MCT-182	Iran	Saudi Arabia	1986	Success
MCT-183	Iran	Kuwait	1986	Success
MCT-190	Turkey	Armenia	1992	Success
MCT-191	Yugoslavia	Croatia	1993	Success
MCT-192	United States of America	Yugoslavia	1993	Success
MCT-192	United Kingdom	Yugoslavia	1993	Success
MCT-192	France	Yugoslavia	1993	Success
MCT-207	Sierra Leone	Liberia	1999	Success
MCT-207	Nigeria	Liberia	1999	Success
MCT-209	Azerbaijan	Armenia	2001	Success

Depending on the operationalization of compellence success and failure as well as the operationalization of success or failure in resisting threats the outcome will vary. This means that care needs to be taken in drawing conclusions from these outcomes as they can be swayed with slight adjustments. This also leads to difficulties in comparing different results with each other, as they can lead to false conclusions. It also suggests that results are not dichotomous success-failure but that there are a myriad of variations of how to class these two outcomes.

## 4.2 Logistic regression

The binomial logistic regression run on the data only showed significance in one variable in model 2. No other variables in the three models exhibited significant outcomes. The data indicates that likely variables to provide deterrence on the part of the target or the part of the initiator fail to do so.

The variable exhibiting significance is the military demonstrations provided in the original MCT data set. This is interesting as there are previously-mentioned studies that point at the weakness of such demonstrations or signalling. Pfundstein Chamberlain (2016) and Post (2019) both find that such demonstrations are weaker than originally thought. This requires us to do a post hoc analysis to take into account reasons for this divergence by re-running part of the data in model 2 merging those cases that had more than one initiator into one. The subsequent result is still significant. Therefore, the results seemingly suggest that in *compellent threat* situations the likelihood of *deterrence* success is lower.

The remaining outcomes of the logistic regression **h1, h2, and h3** we do not find significance. This outcome suggests that the study, based on previous research, is unable to find support for or against previous findings. Given these results, the outcome of *compellence* continues to be inconclusive.

*Table 3 - The effects on successful resistance to compellent threats*

	1	2	3	4
	No controls	Initiator	Target	All
Capability	-0.024 (7.205)	-0.039 (0.029)	-0.025 (0.026)	-0.042 (0.031)
Alliance A		0.357 (0.681)		0.318 (0.684)
Demonstration		-2.054*** (0.527)		-1.921*** (0.524)
Conflicts A		-0.063 (0.211)		-0.61 (0.218)
Conflicts B			-0.483 (0.300)	-0.387 (0.308)
Democracy			-0.031 (0.030)	-0.023 (0.031)
Economy			0.085 (0.085)	0.051 (0.095)
Constant	-1.228*** (0.254)	-0.112 (0.718)	-0.819 (0.322)	0.083 (0.749)
N	112	112	112	112
Pseudo R <sup>2</sup>	0.013	0.147	0.059	0.166

*Note:* b on top, robust S.E. are in parenthesis below.

\* p<.10.

\*\* p< .05.

\*\*\* p< .01.

## 5 DISCUSSION AND REFLECTION

### 5.1 Discussion

In this study, the absence of statistical significance does not mean there are not any results. Side by side use of logistic regression and descriptive statistics provide empirical results. Much of the explanatory power comes from the descriptive statistics while the logistic regression is weaker in explanatory power.

The logistic regression of the *capability* variable did not show significance towards or against the outcome of *deterrent threats*. This is actually one of the studies more interesting points. The impact of the relative CINC score, adjusted for the ability to project by the *initiator*, concurs with other researcher's results in not being decisive. PDT argues for *capability* as a major factor this should reflect on the outcomes in other studies, which it does not.

The outcome of the study shows that a single variable presented significance in its effect on the *dependent variable*; the independent variable, *demonstration*, suggests that it has statistical significance in the lowering of resistance to a *compellent threat*. A demonstration of military force, therefore, could present a warning that attempts in *detering* the threat are less likely to fail. That is not the full picture; we must also consider that 81 out of 112 dyads (72.32%) in MCT contain *demonstrations* of military force. In the 23 dyads representing *successful deterrence* of *compellent threats*, we find nine dyads (39.13%) that include *demonstrations*. Even if statistically significant in the examined cases, it still occurs in other cases that do not constitute a successful outcome for the *initiator*. The way the variable is tested relates to the *target's* fully withstanding of the *compellent threat* and not its usability by the *initiator*.

Examining the outcome for *initiator* and *target*, the results suggest that the preferred outcome is elusive for both parties. *Compellent threats* are in other words likely to end in undesirable outcomes more often than not. In light of the limited number of outcomes in the presented *compellence game* we see the similarity to a bank in a casino where players cannot win pursuing *compellence* in the long run. Furthermore, the selection of *compellence* as the means of pursuing a wanted change vis a vi choosing to go for *fait accompli* needs to be further addressed and compared.

Several researchers have suggested that strong states, the U.S. in particular, have been failing. In this study, the conclusion is that this does not automatically mean that the *target* is succeeding. Rather the outcome suggests that some kind of escalation into conflict is likely to ensue which is not beneficial to either party. In just about a quarter of the cases either the *initiator* or *target* benefit.

The study further suggests that *compellent threats* might not be more unsuccessful for strong states against weak states but rather a lose-lose situation. *Compellent threats* are proving not to be an effective way for either an *initiator* or a *target*. Given previous findings in the studies using MCT (Sechser, 2011, 2018; Post, 2019) this does not come as a surprise. We need to test and re-test the data, in order to discover more about what does - and does not - work in these situations.

The idea presented in PDT, that one can model the outcome through the theory is not fully supported by the outcome. Even though this might seem like a setback it does in fact lend some credence to the estimation and issuance of *compellent threats* and the *deterrence* of such threats. The study indicates that an *initiator* of *compellent threats* can not do so with certainty of outcome: there is a chance for the *initiator* to be called out as a bluff and in over 20% of the cases it leads to the *initiator* backing down.

The PDT is useful in theory and it is plausible that *credibility* and *capacity* can constitute the main pillar in deterrence and coercion. Using game models to describe such situations is also effective and give good insights into *coercive* situations. PDT in itself does provide models and tools that are adapted to examining the situation but it does not provide conclusive guidance for political or military success. *Credibility* and *capacity* explain only part of the puzzle.

The information age revolution and increased asymmetries will probably have an impact. However, we do already see that their effects are rapidly mitigated and novel ways to counter them are common. This means they are streamlined into the existing toolboxes where the fundamentals of *deterrence* are still valid. With all its promises, *cross-domain deterrence* still has to prove its usefulness. We do not yet know what the introduction of these new means to threaten and hurt will result in. Scholars are finding that nuclear weapons do not seem to retain their assumed power and that the expected gains from a “*revolution*” of cyber, economic and new weapons might prove to be weaker than expected. Greenhill (2019: pp. 262–263) suggests the use of refugees and migrants are

potent tools of *coercion*, this is presently being tested along the borders of the European Union and Turkey and has yet to succeed. Furthermore, news is emerging of the use of immigrants and refugees infected with COVID-19 is occurring at some borders. We need to continue following the evolution in deterrence research and in resistance to compellent threats as their workings still seem to apply even in new settings.

Finally, for all the want of being successful at issuing successful *compellent threats* and being able to *deter* such threats, the main finding of this study is that partial success or partial failure is the most common outcome and that *deterrence* is still the most effective option. This forces us to ask the question if we have been asking the right questions, as the empirical data does not contain *successful deterrence* or *deterrence failures* such as *fait accompli*.

## 5.2 Reflection

The study relies on secondary data from numerous sources and the data varies both in collection methods and in quality. *Coercion* and *compellence* is difficult to study at best and existing cases are limited and in certain forms difficult to identify. This means we are limited in the number of identifiable cases that make up the aggregated MCT data set. This potentially weakens the strength of the generalization we can make. Furthermore, the variables are subject to the perception of the actors, especially with regard to threats while others use quantifiable information such as population or economy. Certain variables even though comprehensive, such as CINC, are limited in their actual accuracy when comparing two states with each other and at the same time are relatively useful in the study as they are commonly used.

The CINC balance of military power and other measurements are blunt as they attempt to show a states total military power. If a state uses its military power in different ways, directions or areas of operation the total amount of power would shift. It is, therefore, questionable how well the CINC value actually represents a country's military power in its application. Larger states often have commitments in different directions and have long transits to get their military power to bear. Furthermore, as the threat escalates we can accept the fact that a *target* state might use its total military power against one *compellent threat*, if feasible.

In *compellence*, the actors try to evaluate their antagonist in the best way possible. The *initiator* has reached the conclusion that the *target* is likely to comply with the demands leading to low-cost gains for the *initiator*. Even though Schelling (1960) and several other scholars argue that *compellence* is harder than *deterrence*, this does not make the latter a perfect tool to handle the former.

The outset of the study was to investigate *target* states' ability to withstand *compellent threats*. The results are at best weak in making this point, rather it is the result of reactions and counter-reactions that are organized and tested. The preferred outcomes for *target* and *initiator* are clear while all other results in between are varying degrees of partial failures or partial successes. Comparing the outcomes is difficult and even with the use of detailed game trees and quantitative data success such cases represent but a minor part of the outcomes. With focus only on the *issuer of compellent threats* it can lead to limited comprehension of actual outcomes which in turn can produce flawed conclusions.

We also need to consider that *detering a compellent threat* can constitute circular reasoning, as a *compellent threat* is dependent on *deterrence failure*. This implies that we return to one of the primary problems in *coercion*; how to be able to identify successful *deterrence* in contrast to failed *deterrence*. Furthermore, *deterrence* can fail in several ways: through *brute force conflict*, *fait accompli*, or *compellent threats*. This leaves us with the compelling question of whether we can separate these or need to analyse them together.

In the end, we can neither ascertain successful *compellent threats* nor rely on being able to *deter* such threats. The research and theory do give us the arguments for and against their uses. With many scholars proving that *coercion* is difficult and that strong states do fail the full picture is that failure is actually greater. Research is showing strong states may fail but this does not imply that small states are better off in opposing strong states.

With the rapidly increasing amounts of data, so-called big data, we need to continually harness its descriptive power and apply it back into military and political sciences, and integrate it with case study methods. The case study methods are indeed effective but they do need to be challenged with quantitative and in the future big data. With an evolved ability to model different situations with the massive amounts of data amassed in near real-time our acquired knowledge will be put to the test.

### 5.3 Future research

Sechser (2011) rightfully leaves out *fait accompli* situations, as they do not represent cases of *compellence* by definition. We should, however, concern ourselves with the relationship between *fait accompli* and *compellence* as the *fait accompli* suggests that *compellence* was deemed a less effective or more costly option (Altman, 2017). With a quick overview, we see that cases of *fait accompli* - especially with limited objectives - are the brute force preference, which also has a high success rate. Modern-day examples include Russia's annexation of the Crimea, the 2006 Israel-Hezbollah War and Turkey's intervention in Syria. These examples can be considered examples of limited objective *fait accompli*. At the essence of this Mearsheimer (1983) theory thereby still holds true and that the limited objective *blitzkrieg* could be a most powerful contributing factor to deterrence failure. We can but conclude that *fait accompli* are closely related to *compellence* and that further research into their relation is needed.

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## APPENDICES

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## APPENDIX 1 – USED DATA SET

MCT code	Initiator	Target	Year	Deterrence	Game outcome
MCT-113	United Kingdom	Saudi Arabia	1952	Fail	Conflict
MCT-114	United Kingdom	Egypt	1956	Fail	Conflict
MCT-114	France	Egypt	1956	Fail	Conflict
MCT-115	Russia	United Kingdom	1956	Fail	Compliance
MCT-116	Russia	France	1956	Fail	Compliance
MCT-117	Morocco	Spain	1957	Fail	Conflict
MCT-118	Tunisia	France	1958	Fail	Compliance
MCT-119	China	India	1959	Fail	Conflict
MCT-120	Iran	Iraq	1959	Fail	Conflict
MCT-121	India	Portugal	1961	Fail	Conflict
MCT-122	Indonesia	Netherlands	1961	Fail	Conflict
MCT-123	United States of America	Dominican Republic	1961	Fail	Compliance
MCT-124	India	China	1962	Fail	Conflict
MCT-125	United States of America	Russia	1962	Fail	Compliance
MCT-126	Dominican Republic	Haiti	1963	Fail	Compliance
MCT-127	Turkey	United Kingdom	1963	Fail	Compliance
MCT-128	Turkey	Cyprus	1964	Success	Deterrence
MCT-129	United States of America	Vietnam	1964	Fail	Conflict
MCT-130	Cyprus	Turkey	1964	Fail	Compliance
MCT-130	Greece	Turkey	1964	Fail	Compliance
MCT-131	India	Pakistan	1965	Fail	Conflict
MCT-132	Pakistan	India	1965	Fail	Conflict
MCT-132	China	India	1965	Fail	Conflict
MCT-133	China	India	1965	Fail	Conflict
MCT-134	Egypt	Saudi Arabia	1966	Fail	Compliance
MCT-135	Kenya	Somalia	1967	Fail	Compliance
MCT-136	Israel	Egypt	1967	Fail	Conflict
MCT-137	Turkey	Greece	1967	Fail	Compliance
MCT-138	United States of America	North Korea	1968	Success	Deterrence
MCT-139	Russia	Czechoslovakia	1968	Fail	Conflict
MCT-140	Egypt	Israel	1969	Fail	Conflict
MCT-141	Russia	China	1969	Fail	Conflict
MCT-142	Russia	China	1969	Fail	Conflict
MCT-143	Israel	Lebanon	1970	Fail	Conflict

MCT-144	Cambodia	Vietnam	1970	Fail	Conflict
MCT-145	Iraq	Jordan	1970	Success	Deterrence
MCT-146	United States of America	Russia	1970	Fail	Compliance
MCT-147	Israel	Lebanon	1972	Fail	Conflict
MCT-148	Iraq	Kuwait	1973	Fail	Conflict
MCT-149	Iceland	United Kingdom	1973	Fail	Conflict
MCT-150	Libya	Oman	1975	Success	Deterrence
MCT-151	Iraq	Syria	1975	Fail	Compliance
MCT-152	United States of America	Cambodia	1975	Fail	Conflict
MCT-153	Morocco	Spain	1975	Fail	Compliance
MCT-154	Iceland	United Kingdom	1975	Fail	Conflict
MCT-155	Algeria	Mauritania	1975	Success	Deterrence
MCT-156	Iraq	Syria	1976	Success	Deterrence
MCT-157	Uganda	Kenya	1976	Fail	Compliance
MCT-158	Argentina	Chile	1977	Success	Deterrence
MCT-159	Libya	Egypt	1977	Fail	Conflict
MCT-160	Ghana	Togo	1977	Fail	Compliance
MCT-161	Israel	Syria	1978	Success	Deterrence
MCT-162	Argentina	Chile	1978	Fail	Compliance
MCT-163	Nicaragua	Costa Rica	1978	Success	Deterrence
MCT-164	China	Vietnam	1979	Fail	Conflict
MCT-165	Russia	China	1979	Success	Deterrence
MCT-166	Libya	Tanzania	1979	Fail	Conflict
MCT-167	Libya	Chad	1979	Fail	Conflict
MCT-168	United States of America	Iran	1979	Fail	Conflict
MCT-169	Iraq	Iran	1980	Fail	Conflict
MCT-170	South Africa	Mozambique	1980	Fail	Conflict
MCT-171	Syria	Jordan	1980	Success	Deterrence
MCT-172	Israel	Syria	1981	Success	Deterrence
MCT-173	Bangladesh	India	1981	Fail	Compliance
MCT-174	United Kingdom	Argentina	1982	Fail	Conflict
MCT-175	Laos	Thailand	1984	Fail	Conflict
MCT-176	South Africa	Botswana	1985	Fail	Conflict
MCT-177	Libya	Tunisia	1985	Success	Deterrence
MCT-178	South Africa	Zimbabwe	1985	Fail	Conflict
MCT-179	South Africa	Zambia	1985	Fail	Conflict
MCT-180	South Africa	Lesotho	1985	Fail	Conflict
MCT-181	South Africa	Botswana	1985	Fail	Conflict
MCT-182	Iran	Saudi Arabia	1986	Success	Deterrence

MCT-183	Iran	Kuwait	1986	Success	Deterrence
MCT-184	Mozambique	Malawi	1986	Fail	Compliance
MCT-185	Venezuela	Colombia	1987	Fail	Compliance
MCT-186	Honduras	Nicaragua	1988	Fail	Conflict
MCT-187	United States of America	Panama	1989	Fail	Conflict
MCT-188	Iraq	Kuwait	1990	Fail	Conflict
MCT-189	United States of America	Iraq	1990	Fail	Conflict
MCT-189	United Kingdom	Iraq	1990	Fail	Conflict
MCT-189	Saudi Arabia	Iraq	1990	Fail	Conflict
MCT-190	Turkey	Armenia	1992	Success	Deterrence
MCT-191	Yugoslavia	Croatia	1993	Success	Deterrence
MCT-192	United States of America	Yugoslavia	1993	Success	Deterrence
MCT-192	United Kingdom	Yugoslavia	1993	Success	Deterrence
MCT-192	France	Yugoslavia	1993	Success	Deterrence
MCT-193	Myanmar	Thailand	1992	Fail	Conflict
MCT-194	United States of America	Yugoslavia	1994	Fail	Compliance
MCT-194	United Kingdom	Yugoslavia	1994	Fail	Compliance
MCT-194	France	Yugoslavia	1994	Fail	Compliance
MCT-195	South Africa	Lesotho	1994	Fail	Compliance
MCT-196	United States of America	Haiti	1994	Fail	Compliance
MCT-197	Uganda	Sudan	1995	Fail	Conflict
MCT-198	Eritrea	Yemen	1995	Fail	Conflict
MCT-199	United States of America	Iraq	1997	Fail	Compliance
MCT-200	Ethiopia	Eritrea	1998	Fail	Conflict
MCT-201	D.R. Congo	Rwanda	1998	Fail	Conflict
MCT-202	Iran	Afghanistan	1998	Fail	Compliance
MCT-203	United States of America	Afghanistan	1998	Fail	Conflict
MCT-204	Turkey	Syria	1998	Fail	Compliance
MCT-205	United States of America	Yugoslavia	1998	Fail	Conflict
MCT-205	United Kingdom	Yugoslavia	1998	Fail	Conflict
MCT-205	France	Yugoslavia	1998	Fail	Conflict
MCT-206	United States of America	Iraq	1998	Fail	Conflict
MCT-206	United Kingdom	Iraq	1998	Fail	Conflict
MCT-207	Sierra Leone	Liberia	1999	Success	Deterrence
MCT-207	Nigeria	Liberia	1999	Success	Deterrence
MCT-208	United States of America	Afghanistan	2001	Fail	Conflict
MCT-208	United Kingdom	Afghanistan	2001	Fail	Conflict
MCT-209	Azerbaijan	Armenia	2001	Success	Deterrence
MCT-210	India	Pakistan	2001	Fail	Compliance

## APPENDIX 2 – POST HOC OUTCOME - EPISODES ONLY

*Logistic regression model 1-3 with n=98 (excluding collaborative threats)*

	1	2	3	4
	No controls	Initiator	Target	All
Capability	-0.027 (7.205)	-0.038 (0.029)	-0.030 (0.029)	-0.042 (0.032)
Alliance A		0.274 (0.672)		0.250 (0.677)
Demonstration		-1.625*** (0.546)		-1.528** (0.558)
Conflicts A		-0.065 (0.210)		-0.068 (0.217)
Conflicts B			-0.404 (0.306)	-0.337 (0.310)
Democracy			-0.027 (0.031)	-0.022 (0.031)
Economy			0.039 (0.085)	0.055 (0.093)
Constant	-1.208*** (0.273)	-0.278 (0.716)	-0.890** (0.3339)	-0.104 (0.745)
N	98	98	98	98
Pseudo R <sup>2</sup>	0.018	0.105	0.049	0.121

*Note:* Robust standard errors are in parenthesis.

\* p<.10.

\*\* p< .05.

\*\*\* p< .01.