Bachelor Thesis

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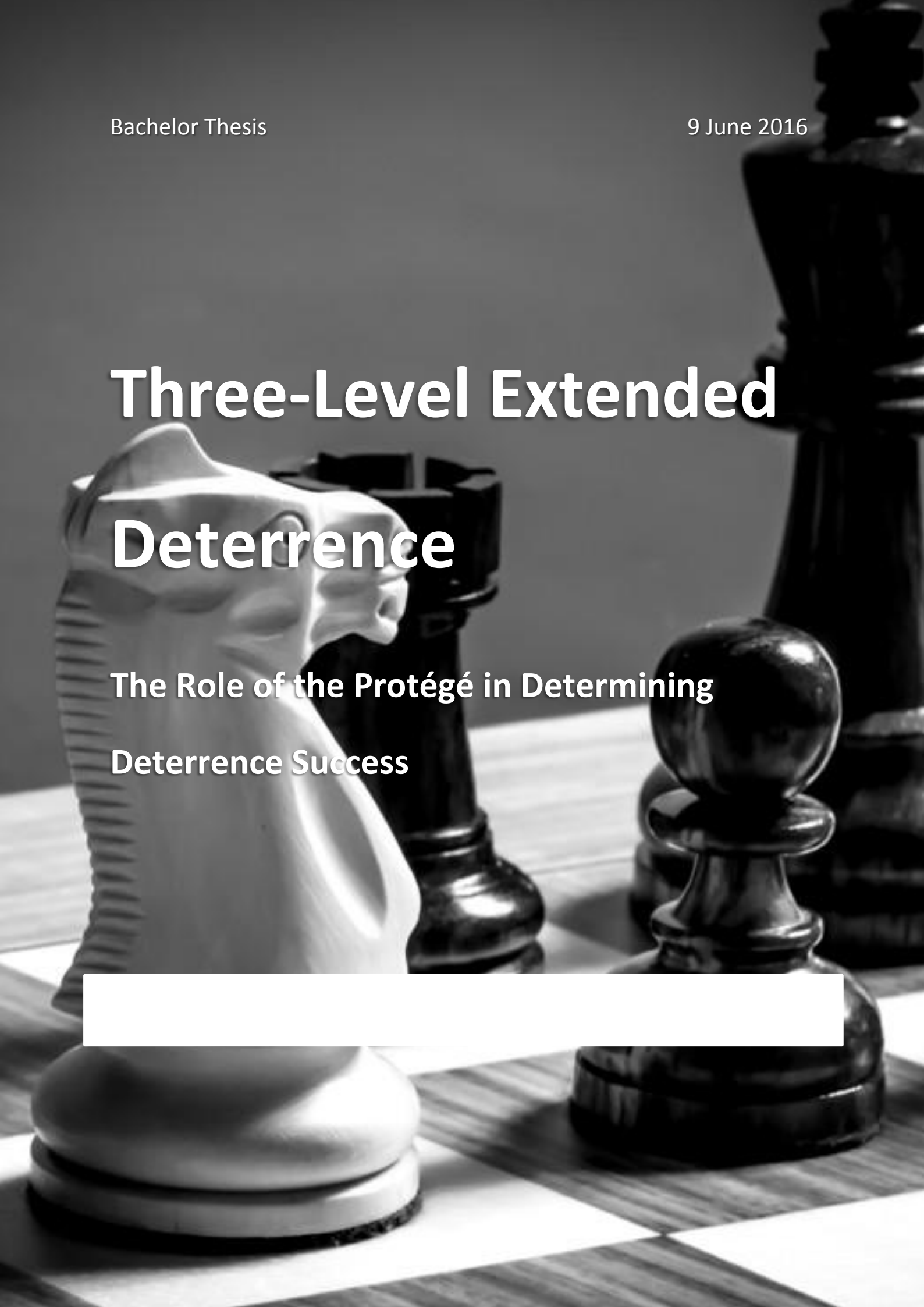

Three-Level Extended Deterrence

The Role of the Protégé in Determining Deterrence Success

Abstract

Extended deterrence is widely researched by many authors. Most of these authors make explicit or inexplicit use of the Two-Party Extended Deterrence Game, which analyses extended deterrence along the lines of Challenger and Defender. Stephen Quackenbush developed the Three-Party Extended Deterrence Game to include a third player to the model. In Quackenbush' model the Protégé is included as a strategic player that has influence on deterrence success. This thesis analyses the role of the Protégé in extended deterrence to see if the Protégé plays a significant role in determining deterrence success. Quackenbush did not include all possibilities in his Three-Party model. This thesis further elaborates on his model and adds an additional decision for the Defender to still resist the Challenger even if the Protégé chooses to concede. The findings indicate that the Protégé is not a significant actor in determining extended deterrence success, as the analysis of the Three-Party Model indicated that deterrence was only successful if at least the Defender had a credible threat.

Introduction

In 1939 Great Britain and France failed to deter Germany from invading Poland, which resulted in World War II. Historical records show that when major powers tried to prevent one another from attacking a third state, failing to do so resulted in war. This has been the case for almost all of the major wars in history. This means that almost all major power conflicts resulted from the failure of *extended deterrence*. When one major power (Defender) seeks to deter another major power (Challenger) from using military force against one of its allies (Protégé), deterrence theorists speak of *extended deterrence* (Danilovic 2002, 53). Deterrence Theory therefore seeks to explain how wars are prevented.

Deterrence Theory has been widely debated since its inception. The theory has a strong link with Rational Choice and Game Theory and has its roots in the Cold War when Game Theoretic models sought to explain nuclear deterrence and the concept of Mutual Assured Destruction (MAD). Deterrence, as a concept, is seen as the capacity of one state (Defender) to deter another state (Challenger) from attacking, meaning that the Defender

can convince the Challenger that the cost of the use of military force to achieve foreign policy outweighs the benefits. This threat must be perceived as credible for deterrence to actually be 'deterrence' and the threats must be explicit so the Challenger does not have to guess about the intentions of the Defender. When the Defender state prevents the Challenger from initiating or escalating a conflict with an ally of the Defender (Protégé), the concept of deterrence evolves into *extended deterrence.*

Most studies within Deterrence Theory focus on the concept of *extended deterrence*. The main explanation why extended deterrence has been so widely researched is also rooted in the Cold War. During the Cold War the United States (Defender) guaranteed the security of its allies (Protégé) against the Soviet Union (Challenger). Given the assumption that Europe would be the victim of a potential Russian nuclear attack, extended deterrence grew to be the main research topic within Deterrence Theory. Extended deterrence therefore is the prevention of the use of military force of a potential enemy, not against the Defender itself, but against a third party (Snyder 1961, 17). Several researchers have tried to analyse the criteria that constitute to the success or failure of extended deterrence (Huth and Russet 1984; Huth 1988; Lebow and Stein 1989; Danilovic 2002) and so a debate has emerged between several of these authors.

Many of these authors argue that "the role of the pawn in extended deterrence does not model the pawn as one of the players" (Kilgour and Zagare 1994), which means that when the Challenger chooses to attack the Protégé, the Protégé will always retaliate, therefore it is not relevant to analyse the role of the protégé in an extended deterrence model (Werner 2000, 723). This thesis, however, will focus on the assumption by Stephen Quackenbush (2006) that the Protégé does play a role in an extended deterrence framework, and that the role of the protégé can offer new insights into the debate between Huth and Lebow over which criteria constitute to deterrence success.

The research question of this thesis is: does the Protégé play a significant role in determining extended deterrence success? To answer this question I will first explain the theoretical framework of Deterrence Theory: what is deterrence? What is the difference between the Two-level Extended Deterrence Game and the Three-Level Extended

Deterrence Game and what is at stake? Second, I will contemplate on the research method used for this thesis. By executing a concept analysis I hope to further specify the concept *extended deterrence* by analysing the role of the Protégé in determining deterrence success. Third, I will deeply analyse the Three-Party Extended Deterrence Game of Quackenbush and add my own insights to his model. And finally I will conclude by seeing whether the role of the protégé plays a significant role in determining deterrence success and whether this conclusion would give new insights to the debate between Paul Huth and Richard Lebow.

> *"Deterrence requires a combination of power, the will to use it, and the assessment of these by the potential aggressor. Moreover, deterrence is a product of those factors and not a sum. If any of them is zero, deterrence fails"* (Kissinger 1957, 12)

Deterrence Debate

Deterrence Theory has been widely debated by several authors over the past decades. As a consequence, several workable definitions of deterrence can be identified. These definitions will be discussed below.

Patrick Morgan defines deterrence as the capacity of one state (Defender) to prevent 'something' from another state (potential Challenger). Usually this 'something' means the prevention of war, however, Morgan enlarges this definition by stating that deterrence is also used to keep wars from getting worse, or to prevent confrontations in which war could readily erupt (2003, 117). Furthermore, Morgan separated *immediate deterrence* from *general deterrence.* Immediate deterrence is a situation where one side is seriously considering an attack, while the other side attempts to deter this possible attack with the threat of retaliation. General deterrence is a situation where opposing states build-up their military as a deterrent, even though neither side is considering an attack (Morgan 1983, 30). General deterrence is often seen as the Security Dilemma.

Paul Huth (1988) uses the definition of *deterrence* that was first issued by Michael Howard. Howard said that deterrence is the ability of one state (Defender) to convince adversaries (potential Challenger) that the cost of the use of military force to achieve foreign policy will outweigh the benefits (1982-83, 315). *Extended deterrence* is defined by Huth as the situation where one state (Defender) threatens to use military force against another state (potential Challenger) in an attempt to prevent the potential Challenger from using military force against an ally that is protected by the Defender (Protégé). When *extended-immediate deterrence* arises, there is an immediate threat where the potential attacker is either actively considering the use of force against a Protégé of the Defender, whose policymakers are aware of the threats, causing them to try and deter the potential attacker from using military force by threatening to retaliate (Huth 1988, 424). Huth also conceptualizes *general deterrence,* which he sees as an adversarial relationship between states, where there is no direct threat of war, but where the threat could culminate as an arms race and/or the formation of alliances (1988, 424). Here, the Security Dilemma can again be recognized.

Paul Huth and Bruce Russet (1984) did and extensive research into the criteria that constitute to deterrence success by examining fifty-four cases of extended deterrence. Huth and Russet used Morgan's criteria to select and identify relevant cases, which state that:

(1) The Challenger is considering attacking a state (Protégé) that is an ally of a third state (Defender);

(2) The Defender state realizes that the Challenger is considering the attack;

(3) This realization must lead to the explicit movement of military forces or threats of retaliation by the Defender state.

Morgan's fourth criterion, which required that "the leaders of the attacker state desist primarily because of the retaliatory threat", was not used by Huth and Russet. They stated that this would be a variable that is too hard to test. They opinioned, however, that this requirement was probably present in most of their cases (Huth & Russet 1984, 498).

Richard Lebow and Janice Stein replied in 1990 that if the cases were correctly classified, only nine of the fifty-four cases were legitimate examples of extended immediate deterrence – that thirty-seven were not, four were examples of compellence and four were hard to classify. The debate between Huth and Russet, and Lebow and Stein shows that the question when deterrence is successful is hard to answer. Morgan (2003) concludes that research into deterrence and deterrence success therefore is subjective to the researchers interpretation.

Lebow and Stein (1989) define *deterrence* as the success of one state (Defender) to prevent potential Challengers from initiating action. This is done by explicitly attempting to prevent the use or deployment of military force of potential challengers trough the threat of retaliation. Lebow and Stein argue that the use of Rational Choice Theory to explain deterrence success and failure is inadequate, as they argue that in several cases leaders estimated the expected costs of war as very high, the probability of winning as low, and the probability that the Defender would retaliate as certain, yet still challenged deterrence (Lebow & Stein 1989, 211). They argued that these cases affect the predictive validity of Rational Deterrence Theory, as it was hard to predict estimated outcomes.

Lebow and Stein argue that Deterrence succeeds when there are explicit attempts by the Defender to prevent the use of military force and Challengers consider backing down from initiating action as they are convinced that the outcome of challenging the Defender's threat would outweigh the benefits for its foreign policy goals. Determining deterrence success therefore should include Morgan's fourth criterion, although Lebow and Stein argued that it would still not be enough to identify viable cases of extended deterrence. Lebow and Stein argued that the success of deterrence comes down to the defender's capabilities and credibility of retaliation, which causes several cases identified by Huth and Russet to be the result of their interpretation of the situation, as leaders of a Challenger state are likely to avoid speaking or writing about an opponent's success in deterring them (Lebow & Stein 1989, 222).

Morgan has analysed the debate between Huth and Russet, and Lebow and Stein and tried to find the middle ground between their positions. Huth and Russet left the concept of *compellence*[1] out of their research. They opinioned that deterrence is often compared to compellence (carrot-and-stick policy), but it does not examine the results from issuing threats to get a state to change its foreign policy (Huth and Russet 1984). Lebow and Stein argue that four of the fifty-four cases used by Huth and Russet were examples of compellence instead of deterrence and therefore their theoretical perception of the concept had to be flawed (Lebow and Stein 1987). Morgan argues that while it is true that a carrot carries an implied threat (to cancel it), adding compellence to the theory of deterrence would destroy its coherence as a concept (Morgan 2003, 119). The fact that Huth and Russet based their identification of cases on three of the four criteria that Morgan identified further complicates the debate of who is right and who is wrong.

Vesna Danilovic (2002) also executed an extensive case study into whether and when deterrence succeeds. She defines *deterrence* as a situation in which a potential Challenger must perceive the deterrer's threats (Defender) as capable and credible for retaliation. She thought that although the impact of capabilities on deterrence has been extensively analysed in the literature, the core problem of effective deterrence lies in the issue of credible intentions. In other words, potential attackers (Challengers) need to believe that the Defender's threats are credible and that they are willing to carry out these threats,

[1] The use of positive incentives to get the target country to change its foreign policy.

otherwise a Defender is bluffing and deterrence success is based on luck. Danilovic mainly focuses on extended deterrence, which she identifies as the attempt by one state (Defender) to prevent another state (Challenger) from initiating or escalating a conflict with an ally of the defender (Protégé). The main function of deterrence therefore is the prevention of some action from happening. In the military context, deterrence entails preventing the adversary from using force. Deterrence theory therefore searches for the conditions that prevent war (Danilovic 2002, 48).

The authors mentioned above all have a slightly different definition of deterrence. Taking them all into consideration, I think the most workable definition of *deterrence* is: the capacity of one state (Defender) to deter another state (Challenger) from attacking, meaning that the Defender can convince the Challenger that the cost of the use of military force to achieve foreign policy will outweigh the benefits. This threat must be credible for deterrence to actually be 'deterrence' and the threats must be explicit so that the Challenger does not have to guess about the Defender's intentions. When one state (Defender) prevents another state (Challenger) from initiating or escalating a conflict with an ally of the defender (Protégé) it becomes *extended deterrence.* This definition combines all aspects that the abovementioned authors used.

Two-level and Three-level Extended Deterrence Models

Two-Party Extended Deterrence Game models are the most widely used in extended deterrence theory. Suzanne Werner states that most authors assume that the immediate target (in most cases the Protégé) of the Challenger's attack will always retaliate. She assumes that since the target's decision does not change, this actor is not an integral part of the strategic calculation (Werner 2000, 723).

The Two-Party Extended Deterrence Game has four generic outcomes. The game ends in the continuation of the *Status Quo* if the Challenger chooses to take no action at Node 1. The game ends in a *Bilateral War* if the Challenger chooses to attack the Protégé and the Defender chooses not to intervene at Node 2, which causes deterrence to fail (Werner 2000, 724). At Node 3 the game has two possible outcomes: if the Challenger backs down when the Defender joins its ally, the game ends in *Challenger Defeated* and deterrence

is successful; if the Challenger presses on, the game ends in *Multilateral War* and deterrence failed. See Figure 1 for a visualisation of the model.

Two-Level Extended Deterrence Model[2]:

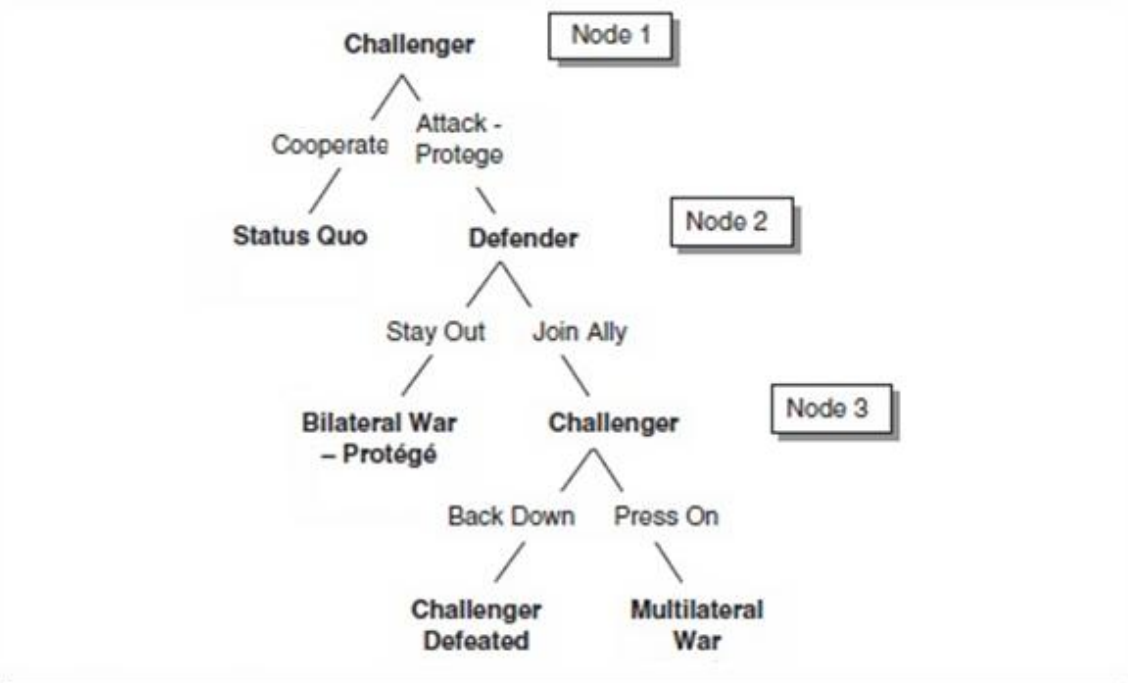

Figure 1: Two-Party Extended Deterrence Game

Stephen Quackenbush (2006) recognizes Werner's claim that the immediate target of the Challenger will always retaliate, and therefore "the role of the pawn in extended deterrence does not model the pawn as one of the players" (Kilgour and Zagare 1994), however, he dares to argue that the inclusion of the Protégé provides a more complete model. Quackenbush states that Two-Party Extended Deterrence Games rely on the often hidden assumptions that states will always respond to direct challenges. However, this assumption contradicts theories of direct deterrence, which leads to the assumption that analysing all three actors in an extended deterrence game would offer a more consistent approach to the problem (Quackenbush 2006, 581).

Quackenbush' Three-Party Extended Deterrence Game has seven generic outcomes. The game ends in the continuation of the *Status Quo* if the Challenger chooses to cooperate (take no action) at Node 1, or the Challenger decides to attack either the Protégé or the Defender. At Nodes 2a and 2b, the Protégé and the Defender have to respectively choose to

[2] Figure 1: Quackenbush 2006, 572.

concede to the Challenger or to resist its attack. If the Protégé or the Defender concede, the game ends in favour of the Challenger and the status quo is changed. At Nodes 3a and 3b, the Defender and the Protégé need to choose between coming to their ally's aid when they have respectively resisted the Challenger, or whether they choose to stay out. When the Defender or the Protégé choose to stay out, deterrence fails and the game ends in either *Bilateral War – Protégé* or *Bilateral War Defender*. At Nodes 4a and 4b the Challenger must choose whether they press on their advance, which results in *Multilateral War* and deterrence fails, or whether the Challenger backs down, resulting in *Challenger Defeated* and deterrence succeeds. The seven possible outcomes of the three-level extended deterrence game therefore are: *Status Quo, Protégé Concedes* (deterrence failure)*, Defender Concedes* (deterrence failure)*, Bilateral War – Protégé* (deterrence failure)*, Bilateral War – Defender* (deterrence failure)*, Multilateral War* (deterrence failure) and *Challenger Defeated* (deterrence success) (Quackenbush 2006, 565-567). See Figure 2 for a visualisation of the model.

Relevancy for Deterrence Theory

As Werner (2000) argued, many authors use the Two-Level Extended Deterrence Game as the basis for their research. Therefore, most authors examine the options available to the Challenger and the Defender, not including the Protégé as an actor in the model. Huth and Russet, Lebow and Stein, and Danilovic based their research on the Two-Level Extended Deterrence Game, as they measured cases where the Challenger and the Defender were relevant actors and the role of the Protégé was not examined. Quackenbush concludes that the Three-Level Extended Deterrence game offers better explanations of whether and whom a Challenger should attack (Quackenbush 2006, 582). Taking into account the general debate within Deterrence Theory, about the question when deterrence is successful or not, makes further analysis of alternative models necessary. Examining the role of the Protégé in extended deterrence can lead to new insights in the general debate, or it would cause the Three-Party Extended Deterrence Game to be irrelevant.

Three-Level Extended Deterrence Model[3]:

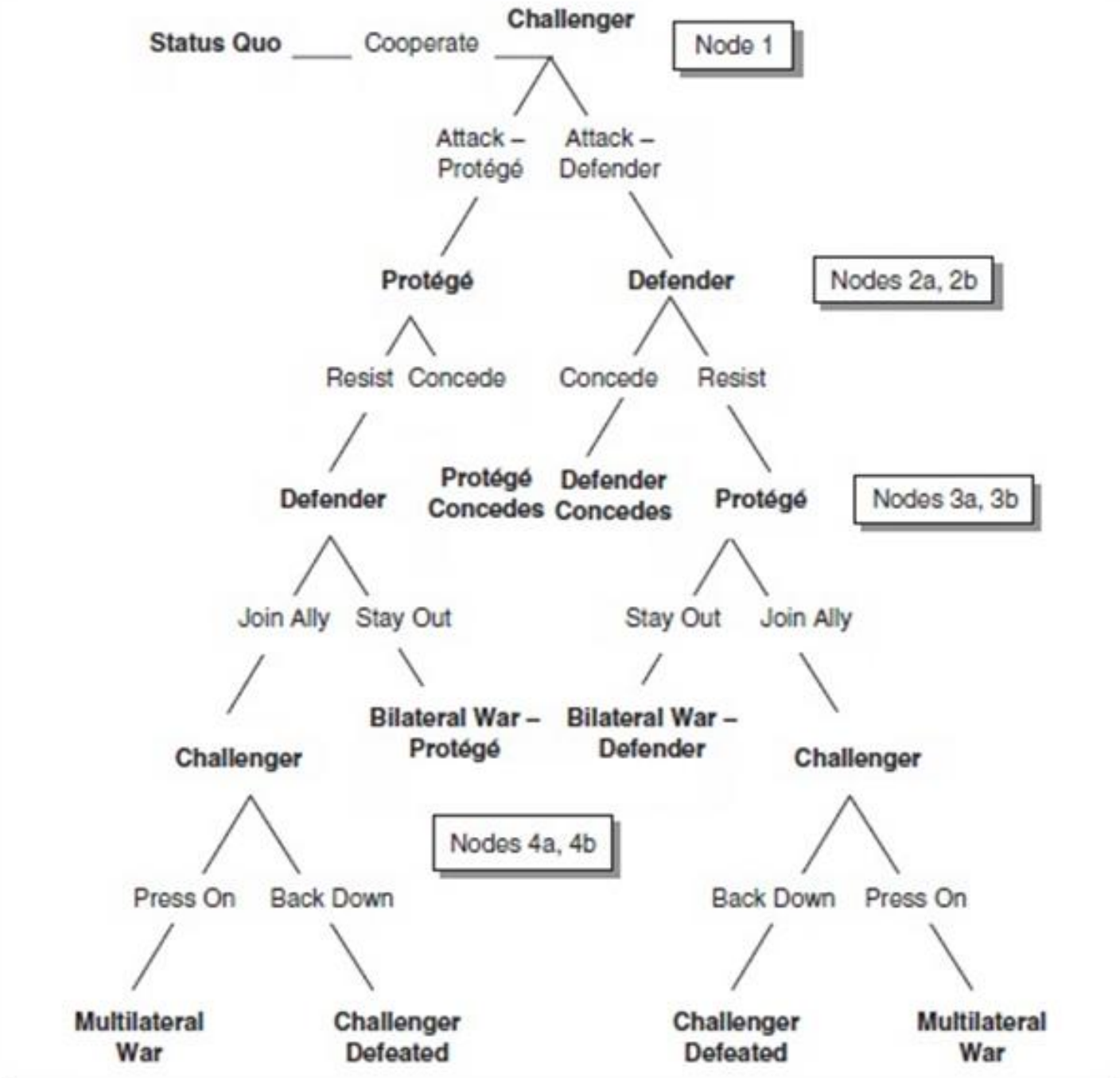

Figure 2: Three-Party Extended Deterrence Game

[3] Figure 1: Quackenbush 2006, 565.

Concept Analysis

Concepts are an essential resource for the development of theories. Therefore it is necessary that the qualities of concepts that are used within a discipline are well developed and of high standard, otherwise the reliability and validity of research outcomes can be questionable. The development of such concepts can be done by executing concept analysis. Concept analysis has its roots in the research design of philosophical inquiry, which states that researchers use intellectual analysis to clarify the meaning of the subjects they are researching (Botes 2002, 24). Botes states that there are four principles that constitute to the quality of a concept:

- Epistemological principle: concepts are clearly defined and well differentiated from other concepts.
- Logical principle: concepts are coherent and have a systematic relation to other concepts.
- Pragmatic principle: concepts are applicable to the world or operationalized.
- Linguistic principle: concepts are appropriate to their use in context (2002, 24).

Wilson (1963) states that conceptual questions must be isolated from other questions: in this thesis the conceptual question is whether the Protégé plays a significant role in determining extended deterrence success. Answering this question gives more depth to the concept of extended deterrence and could offer new insights for the debate between Richard Lebow and Paul Huth over when extended deterrence is successful. On the other hand, answering this question could prove that the Three-Level Extended Deterrence Game does not offer alternative insights to the Two-Level Extended Deterrence Game, which would also help to narrow the concept.

Deterrence as a basic concept is the capacity of one state (Defender) to deter another state (Challenger) from attacking, meaning that the Defender can convince the Challenger that the cost of the use of military force to achieve foreign policy will outweigh the benefits. This threat must be credible for deterrence to actually be ‘deterrence’ and the threats must be explicit so that the Challenger does not have to guess what the intentions of the Defender are. When one state (Defender) prevents another state (Challenger) from initiating or escalating a conflict with an ally of the defender (Protégé) it becomes *extended*

deterrence. When extended deterrence is successful is still controversial to this date, as Lebow and Stein argued that it is hard to measure when deterrence succeeds as leaders of a Challenger state will not speak or write about their adversary's success in deterring them. While you can say that when war does not break out, deterrence is successful, often it is hard to say if the Challenger had any intention to attack in the first place, which makes defining deterrence success difficult.

Lebow and Stein argued that Huth and Russet's theoretical perception of the concept *extended deterrence* was flawed. The problem whether extended deterrence succeeded or whether extended deterrence failed can be analysed on many different levels. One of these levels is the Game Theoretic model that lies at the basis of deterrence analysis: the Two-Level Extended Deterrence Game. Huth and Russet, Lebow and Stein, and Danilovic each make explicit or inexplicit use of the Two-Level Extended Deterrence model. Quackenbush proposed the Three-Level Extended Deterrence model as he thought that his model offered the possibility for a more complete analysis of extended deterrence problems. However, Quackenbush himself left something out of his research, as he states in his article:

> "Some readers might be surprised that the game ends following Protégé's concession at node 2a (or Defender's concession at node 2b), rather than allowing for the possibility that Defender could choose to resist Challenger despite Protégé's concession. To be sure, the inclusion of such a choice for Defender would expand the model's empirical domain and provide the proper context for asking whether Challenger would attack a weak and conciliatory Protégé if there were some probability that Defender would nevertheless fight. In addition, this would more fully integrate the role of Defender's credibility in extended deterrence by allowing consideration of Defender's threat to respond to a challenge even if Protégé concedes. But the additional choice for Defender would further complicate an already complex game and divert attention away from this article's main focus on whom Challenger should attack. In future research, however, I intend to expand the model by allowing for this possibility to gain a more nuanced understanding of the interplay between direct and extended deterrence" (Quackenbush 2006, 566).

The purpose of this concept analysis of *extended deterrence* is to see whether the Three-Party Extended Deterrence Game makes the Protégé a significant player in determining deterrence success. I will further develop Quackenbush' model by adding the option for the Defender to resist the Challenger, even though the Protégé chooses to concede. I believe that the addition of this possibility will complete Quackenbush' model, so further conclusions can be derived about the relevancy of the Protégé as an actor.

The concept analysis will be structured as follows: first, the Three-Party Extended Deterrence Game will be briefly compared to the Two-Party Extended Deterrence Game. Second, the Three-Party Extended Deterrence Game will be analysed in depth. Last, the gap in Quackenbush' model, as stated above, will be filled, to see what happens when the Protégé concedes but the Defender chooses to resist the Challenger.

Comparison Two-Party and Three-Party Extended Deterrence Game

As discussed above, I will outline the main differences between the Two-Party and the Three-Party Extended Deterrence Games[4]. The main difference between the two models is that the Three-Party Extended Deterrence Game includes the Protégé as the third player and strategic actor in the model. Werner argued that the immediate target of an attack will always retaliate if he is attacked (2000, 723). If this is the case, than the Protégé will always retaliate against the attacks of a Challenger, therefore becoming an irrelevant actor to examine in a model. Quackenbush argues that theories of direct deterrence often focus on the credibility of the Defender's threats and theories of extended deterrence give perfect credibility to the state that is challenged. Quackenbush therefore assumes that the dilemma in direct deterrence (will the target respond or not?) is not present in extended deterrence, as the target of a challenge would always choose to retaliate (Quackenbush 2006, 572-573). Quackenbush believes that the Protégé does not automatically retaliate, which leads to the assumption that the Protégé can be a significant actor in the determination of deterrence success.

Three-Party Extended Deterrence Game

The Three-Party Extended Deterrence Game has seven possible outcomes. The seven possible outcomes of the Three-Level Extended Deterrence Game are: *Status Quo, Protégé Concedes* (deterrence failure)*, Defender Concedes* (deterrence failure)*, Bilateral War – Protégé* (deterrence failure)*, Bilateral War – Defender* (deterrence failure)*, Multilateral War* (deterrence failure) and *Challenger Defeated* (deterrence success) (Quackenbush 2006, 565-567). Quackenbush assumes that the actors in his model are rational and therefore, to be rational, each player is able to order the outcomes according to its preferences. The preferences of each actor will now be outlined.

[4] The Two-Level Extended Deterrence Figure can be found on page 9.
The Three-Level Extended Deterrence Figure can be found on page 11.

Challenger

The Challenger seeks to upset the status quo, in order to do this he tries to deter his adversaries and gain an advantage for as little cost as possible. Two outcomes give the Challenger the advantage that it seeks: *Protégé Concedes* and *Defender Concedes*. Given the fact that causing a stronger state to concede rewards more gains than causing a weaker state to concede, the Challenger prefers *Defender Concedes* over *Protégé Concedes.* In the Challenger's case, deterrence is successful if he gets both the Protégé and the Defender to concede, as the Challenger was looking for easy gains and not for war. The third preference therefore is maintaining the *Status Quo.* Given the fact that the Protégé is the weaker state of the two, the Challenger prefers a *Bilateral War – Protégé* over a *Bilateral War – Defender*, but the Challenger prefers any bilateral war over fighting a *Multilateral War*. *Challenger Defeated* is the least favoured outcome of the Challenger, on about equal footing with fighting a *Multilateral War.* Whether the Challenger prefers a multilateral war or backing down depends on the nature of the Challenger. The Challenger's threat is only credible when it prefers *Multilateral War* over *Challenger Defeated.* Quackenbush therefore defined two types of Challengers: Hard Challengers, who have a credible threat, and Soft Challengers, who have no credible threat (Quackenbush 2006, 567).

Defender

The Defender has the goal of keeping the Challenger from changing the status quo; however, it does not want to change the status quo itself. The Defender therefore gains when the Challenger needs to back down after meeting resistance from the Protégé and/or the Defender. *Challenger Defeated* therefore is the most preferred outcome, followed by the *Status Quo.* Given the fact that the Defender cannot choose between *Challenger Defeated* and *Status Quo* the preference order can be left open without altering the results of the research. When the Challenger decides to attack, however, the Defender prefers that the Challenger gains from the Protégé rather than the Defender. The Defender therefore prefers *Protégé Concedes* to *Defender Concedes* to *Bilateral War – Protégé* to *Bilateral War – Defender.* If the Protégé fights a bilateral war with the Challenger, and the Defender would choose to concede, the lack of commitment to the Protégé would become apparent. Therefore the Defender prefers *Protégé Concedes* to *Bilateral War – Protégé,* as this offers a chance where the Protégé concedes as well and the lack of commitment would be hidden.

Moreover, the Defender prefers to fight the Challenger with the support of the Protégé rather than fighting the Challenger alone, which results in the Defender preferring *Multilateral War* to *Bilateral War – Defender.* The last choice the Defender has to make is choosing between *Bilateral – War Protégé* and *Multilateral War* (Quackenbush 2006, 567-568).

Alliance politics come into play here, which separate the Defender into two subtypes: reliable allies will prefer to fight a *Multilateral War* and unreliable allies will prefer *Bilateral War – Protégé.* The threat of the Challenger is supposed to be capable, which means that when the Challenger executes his threat, the Defender will be disadvantaged. This means that the Defender prefers *Status Quo* to all possible conflict options. Moreover, as conceding to the Challenger is some kind of loss, the Defender prefers *Status Quo* to *Defender Concedes.* There are three more types of Defender: Unconditionally Hard Defenders will prefer to resist at node 2b no matter the choices of the Protégé and the Challenger; Conditionally Hard Defenders will only resist the Challenger if the Protégé will choose to resist as well, therefore preferring *Multilateral War* to *Defender Concedes,* but *Defender Concedes* to *Bilateral War – Defender;* Soft Defenders will prefer conceding to any threats made by the Challenger.

Combining the subtypes of Defender in extended deterrence: Reliable and Unreliable; and the three subtypes in direct deterrence: Unconditionally Hard, Conditionally Hard and Soft, result in six different types of Defender (Quackenbush 2006, 568).

Protégé

The preferences for the Protégé are equal to those of the defender, but Protégé and Defender should swap positions in its ordering. *Challenger Defeated* is the most favourable outcome for the Protégé, followed by the *Status Quo.* Furthermore, the Protégé prefers *Defender Concedes* to *Protégé Concedes*, *Bilateral War – Defender* to *Bilateral War – Protégé, Defender Concedes* to *Bilateral War – Defender, Bilateral War – Defender* to *Bilateral War – Protégé* and *Multilateral War* to *Bilateral War – Protégé.*

This results in the following ordering for the Protégé: *Challenger Defeated > Status Quo > Defender Concedes > [Multilateral War, Bilateral War – Defender] > Protégé Concedes > Bilateral War – Defender.* The Protégé can also be either a Reliable or an Unreliable ally and

can also be Unconditionally Hard, Conditionally Hard or Soft, which result in six types of Protégé as well.

Subgame Perfect Equilibrium Outcome Matrix

The equilibria of these preferences can be found in a *subgame perfect equilibria outcome matrix.* The subgame perfect equilibrium makes sure that all choices that are made in an equilibrium are rational and where the preferences are common knowledge. The combination of the different types of players makes one game. For example, a combination can be made between a Hard Challenger, a Reliable/Conditionally Hard Defender and an Unreliable/Hard Protégé. There are two types of Challenger, two types of Defender and six types of Protégé, which results in a total of 72 possible games. Quackenbush states that these games can be halved, because a Soft Challenger will always choose to cooperate, which will result in the *Status Quo* as the subgame equilibrium outcome of all 36 games where the Challenger is Soft. The other 36 games, where the Challenger is Hard, were analysed by Quackenbush (2006, 569). The games are displayed in the Table below[5]

TABLE 1
Subgame Perfect Equilibrium Outcome Matrix

	Protégé's Type					
Defender's Type	RH_1	RH_2	*RS*	UH_1	UH_2	*US*
RH_1	SQ	SQ	PC	$SQ^{a,b}/BD^{c}$	$SQ^{a,b}/BD^{c}$	PC
RH_2	SQ	SQ	PC	DC	DC	DC
RS	DC	DC	DC	DC	DC	DC
UH_1	$SQ^{a}/BP^{b,c}$	PC	PC	$SQ^{a}/BP^{b,c}$	PC	PC
UH_2	$SQ^{a}/BP^{b,c}$	PC	PC	DC	DC	DC
US	DC	DC	DC	DC	DC	DC

NOTE: RH_1 = Reliable/Unconditionally Hard; RH_2 = Reliable/Conditionally Hard; RS = Reliable/Soft; UH_1 = Unreliable/Unconditionally Hard; UH_2 = Unreliable/Conditionally Hard; US = Unreliable/Soft; SQ = Status Quo; BP = Bilateral War—Protégé; BD = Bilateral War—Defender. Outcomes occur for each capability condition unless otherwise indicated by a superscript, defined as follows:
a. Equilibrium outcome when both Defender and Protégé have capable threats.
b. Equilibrium outcome when only Defender has a capable threat.
c. Equilibrium outcome when neither Defender nor Protégé has a capable threat.

Quackenbush found the subgame perfect equilibrium of each game by using backwards induction. He found that when the Defender is Soft, the equilibrium outcome would be *Defender Concedes,* without having to differentiate between the reliability of the Defender or the type of the Protégé. Furthermore, if the Protégé is Soft, the outcome would always be

[5] Table1: Quackenbush 2006, 570

Protégé Concedes. Quackenbush found that deterrence was most successful when the Defender and the Protégé were both Hard and Reliable. Quackenbush further differentiated in equilibria found when the Defender and the Protégé both had capable threats, when only the defender had a capable threat and when neither the Defender nor the Protégé had a capable threat.

Defender And Protégé Have A Capable Threat

In games where the Defender and the Protégé both had capable threats, Quackenbush assumes that the Challenger will always prefer the *Status Quo* to any scenario involving war, which means that the threat of a *Bilateral War* is capable of deterring the Challenger. Under perfect information, war would never occur in cases where both the Defender and the Protégé have a capable threat. Zagare and Kilgour found this outcome as well in two-player deterrence games (2000). This implies that the Protégé should, in theory, be capable of deterring a Challenger when both the Defender and Protégé have a capable threat. The problem for the concept *extended deterrence* that arises from this finding is that when the Protégé is capable of deterring the Challenger on its own, it would be direct deterrence (Quackenbush 2006, 570).

Defender Has a Capable Threat

When the Defender has a capable threat, but the Protégé does not, there is a possibility for conflict. Depending on the type of Defender there is a possibility for *Bilateral War – Protégé* with the Challenger. In this case, the Protégé is not capable of deterring the Challenger on its own. The result is that the Challenger prefers to fight a *Bilateral War – Protégé* over *Status Quo* and *Status Quo* over *Bilateral War – Defender* and *Multilateral War.* Quackenbush found, as can be seen in Table 1, that the equilibrium in 33 of the 36 cases were identical when only the defender had a capable threat to when the Defender and Protégé both had capable threats. The differences all lead to *Bilateral War – Protégé*, which is the result because the Protégé chose to fight even though the Defender was unreliable. This finding leads me to assume that the Protégé is very dependent of the Defender (Quackenbush 2006, 571).

Defender And Protégé Have No Capable Threat

When the Protégé and the Defender do not have a capable threat, then they are not able to deter a Challenger by itself. The Challenger will therefore prefer any bilateral war to the status quo. However, the combination of the two states will lead to a capable threat, which causes the Challenger to prefer the *Status Quo* to *Multilateral War.* Quackenbush also found, as can be seen in Table 1, that the equilibrium in 34 of the 36 cases is identical to the equilibria when only the Defender has a capable threat. Moreover, when the Protégé is Unreliable, there is a chance that the Defender chooses to fight even though the Protégé chose to concede, which results in *Bilateral War – Defender* (Quackenbush 2006, 571). The last mentioned step will be analysed in more detail when I add this possibility to the Three-Party Extended Deterrence Game.

Incomplete information

Quackenbush further analysed his model under incomplete information, as in reality, all parties seldom have full information as to what their intentions are. While I expected Quackenbush to further elaborate on the role of the Protégé in this section, he mainly focused on the question whom the Challenger should attack in this part. Furthermore, Quackenbush only studies *Conditionally Hard* players in his study, allowing only their reliability to vary. By doing this, Quackenbush wanted to explain the effect of alliance reliability on the target decisions of the Challenger. He focused on a situation where neither Defender nor Protégé are able to deter Challenger alone, but rather had to work together to successfully deter the Challenger. While further analysis of deterrence under incomplete information offers the most practical applicable knowledge and insights into the working of deterrence, I will focus on the complete information analysis only, as it works best to analyse the additional choice I will add to the Three-Party Extended Deterrence Game of Quackenbush.

Developing the Model

In Quackenbush' model the game ends if the Protégé chooses to concede at node 2a (or when the Defender concedes at node 2b). He states that the inclusion of the possibility for the Defender to resist the Challenger even when the Protégé chooses to concede would further complicate an already complicated model. However, I dare to argue that the addition of this possibility is not that complicated at all. In Figure 3 I have visualised the addition of this possibility to Quackenbush' model. Quackenbush stated that the additional choice would divert attention away from his article's main focus, which was the question whom the Challenger should target. The inclusion of this choice, however, would destroy the practical use of his model in examining the added function of the Protégé. I therefore believe that Quackenbush deliberately left this possibility out of his model. In this section I will further contemplate on the inclusion of the possibility for the Defender to resist the Challenger even when the Protégé concedes. I believe that adding this possibility for the defender would turn the game back into a two-party extended deterrence game, which would make the role of the Protégé in extended deterrence insignificant.

The three-level extended deterrence game of Quackenbush has seven generic outcomes. While several steps are added in my modification of Quackenbush' model, there are still seven generic outcomes. The game ends in the continuation of the *Status Quo* if the Challenger chooses to cooperate (take no action) at Node 1, or whether the Challenger decides to attack either the Protégé or the Defender. At Nodes 2a and 2b, the Protégé and Defender have to respectively choose to concede to the Challenger or to resist its attack. If the Protégé or the Defender concedes, the game ends in favour of the Challenger and the status quo is changed.

In Quackenbush' model this is the end of the game, as he stated that the inclusion of the possibility for the Defender to resist the Challenger would further complicate an already complicated model. As shown in Figure 3, I have added the option for the Defender to resist the Challenger even if the Protégé chooses to concede. In my modified model, the Defender gets to choose at Node 3 whether he concedes, which leads to *Defender Concedes* and the game ends still, or whether the Defender chooses to resist the challenger which leads straight to Node 5 and the game continues. At Nodes 4a and 4b, the Defender and the Protégé need to choose between coming to their ally's aid when they have respectively

resisted the Challenger, or whether they choose to stay out. When the Defender or the Protégé choose to stay out, deterrence fails and the game ends in either *Bilateral War – Protégé* or *Bilateral War Defender*. At Nodes 5a, 5b and 5c the Challenger must choose whether they press on their advance, which results in *Multilateral War* and deterrence fails, or whether the Challenger backs down, resulting in *Challenger Defeated* and deterrence succeeds.

While I have added one optional path to the model, there are still seven possible outcomes of the Three-Level Extended Deterrence Game: *Status Quo, Protégé Concedes* (deterrence failure)*, Defender Concedes* (deterrence failure)*, Bilateral War – Protégé* (deterrence failure)*, Bilateral War – Defender* (deterrence failure)*, Multilateral War* (deterrence failure) and *Challenger Defeated* (deterrence success). Quackenbush' Subgame Perfect Equilibrium Outcome Matrix would not change either, as the situation described above is the combination of a Reliable/Unconditionally Hard Defender with an Unreliable/Soft or Reliable/Soft Protégé. The Protégé in this case is Soft, therefore chooses to always concede to the Challenger. Translating this to a real world scenario: a weak state with no credible threat and no power is challenged by a stronger state. The weaker state (Protégé) is protected by a stronger state (Defender) and this Defender has key strategic interests in this particular weak state. This leads the Defender to be Reliable/Unconditionally Hard, as it would always come to the aid of its Protégé as it is in its key strategic interest. Adding this option shows that deterrence success is mainly dependent on the Defender.

Quackenbush found, as can be seen in Table 1, that the equilibrium of 33 of the 36 cases, when both the Protégé and the Defender had a capable threat were identical to when only the defender had a capable threat. Moreover, Quackenbush found that when neither the Protégé, nor the Defender had a capable threat, the equilibrium in 34 of the 36 cases is identical to that obtained when only the Defender has a capable threat. This led me to assume that if the Defender is willing to fight the Challenger, even though the Protégé is unreliable, the outcome is a bilateral war between Challenger and Defender. Taking the above analysis into consideration I believe the role of the protégé to be insignificant in determining deterrence success.

Three-party Extended Deterrence Game Model – Protégé Concedes:

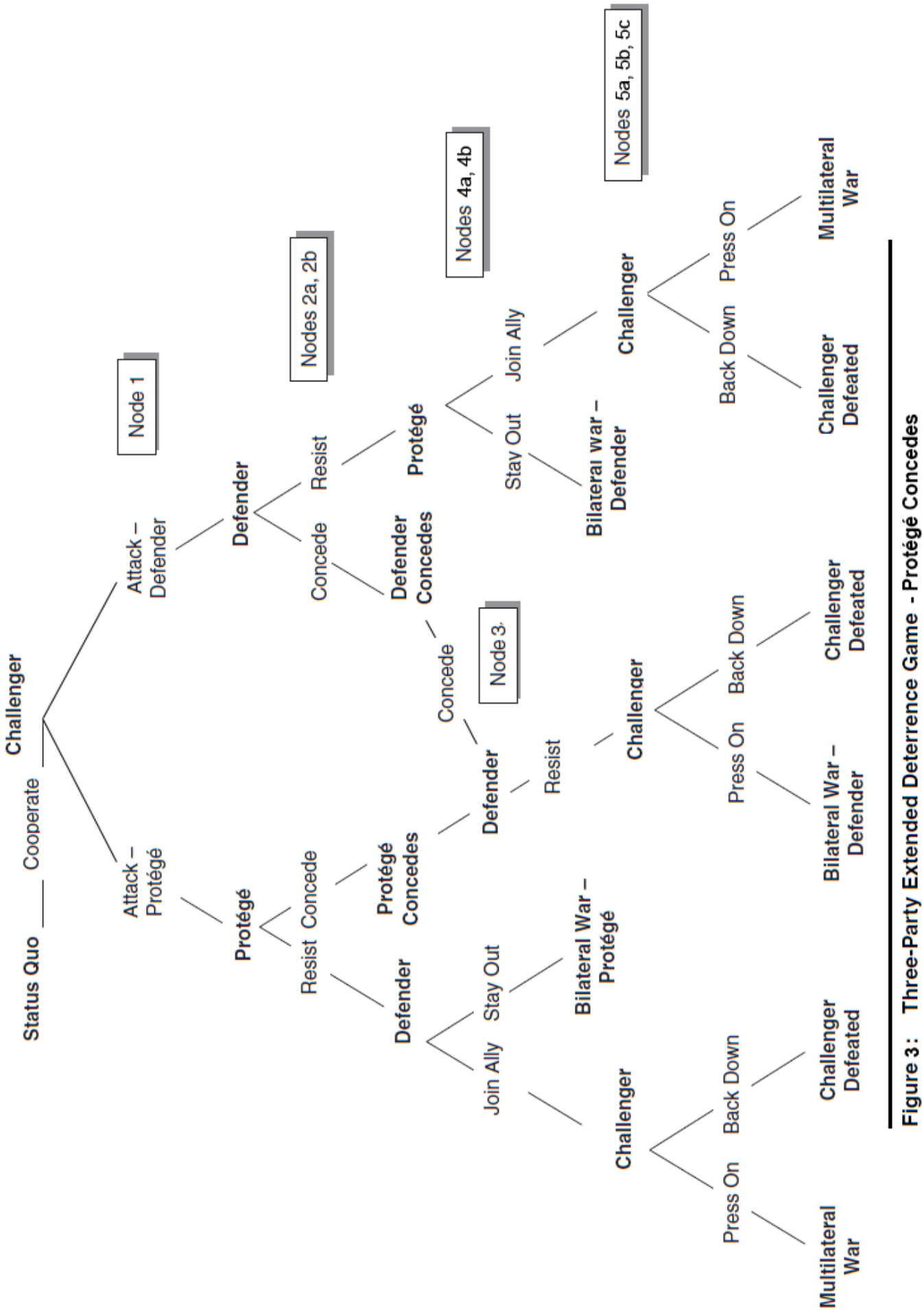

Figure 3: Three-Party Extended Deterrence Game - Protégé Concedes

Conclusion

The main goal of this thesis has been to analyse the role of the Protégé in extended deterrence. The research question was: does the Protégé play a significant role in determining extended deterrence success? I have executed a concept analysis with the purpose to clarify the meaning of the concept extended deterrence and the interactions between the Protégé, the Defender and the Challenger in an extended deterrence framework. Moreover, I sought to bring new insights to the debate between Paul Huth and Richard Lebow over defining when extended deterrence can be considered successful. The most basic conclusion is that the Three-Level Extended Deterrence Game does not offer new insights to the deterrence debate that the Two-Level Extended Deterrence Game did not already offer.

Quackenbush found in his study that over 90 per cent of the equilibria that he found in extended deterrence games had the same outcome when only the Defender possessed a capable threat against the Challenger. Moreover, adding the option for the Defender to come to the aid of the Protégé while the Protégé chose to concede would also lead to a situation where the Protégé did not appear to be a significant actor in determining deterrence success. I therefore want to conclude by saying that future studies should avoid going into too much detail about the role of the Protégé in extended deterrence. However, Werner's assumption that the immediate target of the Challenger's attack will always retaliate (2000, 723) should be altered somewhat. While I do agree with the assumption by Kilgour and Zagare (1994) that "the role of the pawn in extended deterrence does not model the pawn as one of the players", there are some dimensions to the decisions of the Protégé that Werner's theory ignores.

As the addition of the possibility for the Defender to resist the Challenger showed, the Defender can still choose to fight a bilateral war when the Protégé concedes. Therefore, the Protégé should not have to fight back on every occasion where it is challenged by an adversary. The main conclusion of this thesis therefore is that deterrence is highly dependent on the willingness and capability of the Defender to stand up against a Challenger and that the role of the Protégé is not significant in determining deterrence success.

Since my findings do not shed new light on the concept of extended deterrence, it is hard to apply these findings to the debate between Huth and Lebow. However, I can add something to the debate. First, the role of the Protégé should not be important in finding cases of deterrence success. Second, researchers should continue to focus on the Two-Party Extended Deterrence Game. Third, researchers should look for alternative and creative ways to come up with ways to determine deterrence success, as Quackenbush did and as I tried in this thesis.

References

Botes, Annatjie. 2002. "Concept Analysis: Some Limitations and Possible Solutions." *Curationis* 25(3): 23-27.

Danilovic, Vesna. 2002. *When the Stakes are High.* Ann Arbor: University of Michigan Press.

Howard, Michael. 1982-1983. "Reassurance and Deterrence: Western Defense in the 1980s." *Foreign Affairs* 6(1): 309-324.

Huth, Paul & Russet, Bruce. 1984. "What Makes Deterrence Work? Cases from 1900-1980." *World Politics* 36(4): 496-526.

Huth, Paul. 1988. "Extended Deterrence and the Outbreak of War." *The American Political Science Review* 82(2): 423-443.

Lebow, Richard & Stein, Janice. 1987. "Beyond Deterrence." *Journal of Social Issues* 4(3): 5-71.

Lebow, Richard & Stein, Janice. 1989. "Rational Deterrence Theory: I think, Therefore I Deter." *World Politics* 41(2): 208-224.

Lebow, Richard & Stein, Janice. 1990. "Deterrence: The Elusive Dependent Variable." *World Politics* 42(3): 336-369.

Kilgour, Marc & Zagare, Frank. 1994. "Uncertainty and the Role of the Pawn in Extended Deterrence." *Synthese* 100(3): 379-412.

Kissinger, Henry. 1957. *Nuclear Weapons and Foreign Policy.* New York: Harper and Row.

Morgan, Patrick. 1983. *Deterrence: A Conceptual Analysis.* 2nd ed. Beverly Hills, California: Sage.

Morgan, Patrick. 2003. *Deterrence Now*. Cambridge, United Kingdom: Cambridge University Press.

Quackenbush, Stephen. 2006. "Not Only Whether but Whom: Three-Party Extended Deterrence." *Journal of Conflict Resolution* 50(3): 562-583.

Snyder, Glenn. 1961. *Deterrence and Defense: Toward a Theory of National Security.* Princeton: Princeton University Press.

Werner, Suzanne. 2000. "Deterring Intervention: The Stakes of War and Third-Party Involvement." *American Journal of Political Science* 44(4): 720-732.

Wilson, John. 1963. *Thinking With Concepts.* Cambridge, United Kingdom: Cambridge University Press.

Zagare, Frank & Kilgour, Marc. 2000. *Perfect Deterrence*. Cambridge, United Kingdom: Cambridge University Press.