State participation
in the
Biological Weapons Convention

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Abstract

The issue of universality - how to ensure universal adherence to the Biological Weapons Convention (BWC) – remains high on the agenda of the BWC member states. At the moment, there are still 27 states in the world that have not yet ratified or acceded to the BWC. Understanding why states refuse or are unable to join the Convention (or join the Convention only after a long time) can bring universality a step closer. In this thesis, I will look at reasons for state participation in or resistance to the BWC, in an effort to test to what extent New Liberalism can explain this participation or resistance.

Central to liberal theories of international cooperation are factors of domestic politics. Liberals believe every state's basis purposes and interests are shaped by the interdependent domestic and transnational society in which it is embedded. This thesis will therefore focus on factors of domestic politics that can help explain why states engage in arms control agreements such as the BWC or why they don't do that.

Factors of domestic politics include social values & identities regarding, for example, political ideology, the market position of domestic companies and the structure of domestic political representation. Also relevant are problems of bounded rationality, such as a limited span of attention or problems of uncertainty.

In order to test New Liberalisms explanatory power, this thesis first looks at reasons for state participation or resistance that can be found in scientific and professional literature. Secondly, three small case studies are performed that look more closely at reasons of specific states: Israel, Haiti and Cameroon.

The idea is not that this research will deliver conclusive results, but that it might produce inconclusive but nevertheless suggestive results that warrant further investigation through larger scale studies.

Contents

1. Introduction

In an effort to prevent the spread of weapons of mass destruction (WMDs), the international community developed a Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction in 1975. Better known as the Biological Weapons Convention (BWC), this example of an international regime (I will also use the term "treaty regime"), contains ' a set of rules which govern state action in particular areas' (Jackson and Sørensen 2003, p. 117). Together with other forms of international organizations such as NATO and the European Union, international regimes cover many aspects of international relations that might require some form of cooperation or coordination between states. Security issues such as the proliferation of weapons serve as a prime example of such cooperation in a need to guarantee stability, and national sovereignty in world system full of insecurities.

One of the main questions in regime theory is the following one: how and when will states cooperate, i.e. form and/or join international regimes. In this thesis, I will look at international cooperation in arms control issues by studying state resistance to and participation in the Biological Weapons Convention. In other words: why do or don't states join the regime to prevent biological weapons?

This is an important question for the member states of the BWC. The issue of universality - how to ensure universal adherence to the Biological Weapons Convention – remains high on the agenda of the BWC member states[1]. At the moment, there are still 27 states in the world that have not yet ratified or acceded to the BWC. Understanding why states refuse or are unable to join the Convention (or join the Convention only after a long time) can bring universality a step closer. Without such universality of adherence to international regimes, the attractiveness for participants would severely diminish, making international cooperation all the more unlikely and endangering stability and security.

The scientific relevance of this thesis lies in its testing of the explanatory power of one of the major theories of international cooperation, which is New Liberalism. Much has been written about this theory, and there have been some publications regarding the reasons why states do

[1] Universalization was, for example, one of the issues discussed during the 6th (2006) and 7th (2011) Review Conferences of the BWC

or do not join the BWC. However, New Liberalism has, as far as I know, not been tested on the case of the Biological Weapons Convention. Moreover, those reasons of states joining or not joining the BWC have not been compared to theory of international cooperation.

In this thesis, I will first present my theoretical framework and introduce theoretical concepts, starting with the core assumptions of regime theory and moving on to those of New Liberalism and bounded rationality. This will result in the conceptual framework I will use for this thesis. Then, I will elaborate on my research method and the data I have used. Third I will elaborate on "general reasons" for states joining or not joining the BWC, based on scientific and professional literature, followed by three case studies. I will conclude this thesis with my analysis and concluding remarks.

2. Theoretical framework / concepts 1: regime theory

Regime theorists study international regimes, in an effort to understand how cooperation can be achieved as well as sustained in a world full of sovereign states. Regime theorists believe cooperation is possible even in an anarchic system through the establishment of regimes. They study how and why regimes emerge, evolve and collapse, the extent to which regimes such as international institutions help advance cooperation and why states decide to join them (Keohane 2005, Haggard and Simmons 1987, Jackson and Sørensen 2003).

In regime theory, two approaches are dominant. Realist approaches are based on the hegemonic stability theory. While there are realists that believe regimes such as international institutions are non-existent or at least irrelevant, since they do not have the power to shape state behavior (Stein 1993), others maintain that stable international institutions and international regimes can exist. According to Sitaraman (2009), the existence of a hegemonic power is a necessary condition for a regime's emergence and development. Regimes will then be the 'mere extensions of state interests' (Sitaraman 2009, p. 37). According to the hegemonic stability theory, conditions of anarchy can even enhance international cooperation[2]. If a state becomes very powerful, 'so powerful that it dominates all the other states in the system' (Mearsheimer 1995, p. 86), this state (the hegemon) will exercise leadership in the world, either through persuasion, diplomacy or coercion and thus create stability. In other words: because of the concentration of international power in a hegemon, there is a strong compulsion for (other, weaker) states to "cooperate". 'Stability is (…) seen (…) as enhanced by a concentration of power in international politics: there is virtue in inequality among states' (Viotti and Kauppi 2011, p. 73). At the same time, the absence or decline of hegemony as well as the presence of multiple (more than two) major powers will create disorder and chaos and the end of the hegemonic regime.

The second dominant approach is an influential strand of the liberal school of thought: the neoliberal institutionalism of thinkers such as Robert Keohane and Joseph Nye. Neoliberal institutionalists claim that international institutions (regimes and/or international organizations) help promote interstate cooperation. One of their main purposes is to find out 'under what conditions institutional commitments are more or less likely to be kept' (Keohane

[2] See for example Viotti and Kauppi 2011, p. 73

1995, p. 33). Another important question is why states are willing to enter into international institutional arrangements in the first place.

According to Keohane, shared interests are fundamental to the formation of international regimes: 'These interests may reflect the gains to be obtained from exploiting others other more effectively (…). But they may also be based on a mutual desire to increase the efficiency of the exchanges in which they engage (Keohane 2005, p. 79). The incentives to form international regimes will be greater when the issue density is high: when within a certain policy space the number and importance of issues is high, it is more likely that these issues are interconnected and so will agreements on these issues. In that case it will probably be more efficient to develop or join a regime than to stay with making *ad hoc* agreements. However, even when shared interests exist, cooperation frequently fails. This can happen, for example, when there is a collective action problem, when 'self-interested individuals are likely to calculate that they are better off by not contributing, since their contribution is costly to them but has an imperceptible effect on whether the good is produced' (Ibidem, p. 69). Cooperation can still occur, and is facilitated by two other factors. The first factor is a limited number of players that are in the lead. Their intensive interaction can help to substitute for the actions of a hegemon. And second: existing patterns of regimes: 'the creation of new international regimes may be facilitated by the mutual confidence created by old ones' (Ibidem, p. 79).

Keohane believes international regimes and – institutions are valuable for states because they can enable 'mutually beneficial agreements that would otherwise be difficult or impossible to attain'. *Ad hoc* agreements may suffice where issue density is low, but in other cases the forming of an international regime can be superior. This applies, as already mentioned, to situations in which issue density is high. Additionally, Keohane introduces three conditions 'at least one of which must apply if regimes are to be of value in facilitating agreements among governments' (Keohane 2005, p. 154):

1. a 'lack of a clear legal framework establishing liability for actions', for example the lack of a world government;
2. 'information imperfection': information is costly and/or difficult to obtain. Regimes can be attractive to states if they provide specific information that states otherwise

would not be able to get or too costly to obtain. This is of value to states, because 'high-quality information reduces uncertainty' (Ibidem, p. 160).

3. 'positive transaction costs': costs such as organization costs and side-payments are often very high.

In other words: for a regime to be of value to states, the costs of making *ad hoc* agreements on specific issues would have to be higher than the costs of discussing these issues within the context of a regime plus the costs of establishing or joining that regime. Also, international regimes can reduce uncertainty and risk by raising the costs of deception, 'by linking discrete issues to one another and by improving the quantity and quality of information available to participants', (Keohane 1983, p. 161). States will have to make a rational decision whether or not to participate in a regime based on looking at the relationship between their interests and expected gains and costs.

Regime theory and domestic politics

As Keohane points out himself, his work has a weakness: 'the theoretical discussions of *After Hegemony* treats states as units, without taking into account variations in domestic politics or in the ideals prevailing within them' (Keohane 2005, p. xiii). In other words: in his theory there is no connection or interaction between domestic politics and international institutions. Obviously, he believes it is important to 'rectify this omission' (Ibidem). Apparently, he does not necessarily believe that regimes and institutions have a strong independent influence on state behavior, as structural realist would say. What is suggested is that he does believe domestic politics is important to a state's decision whether or not to participate in an international regime. This is one of the core and distinctive assumptions of liberalism in international relations. Moravcsik believes this is a major strength of liberalism: because of this approach liberalism 'provides a plausible theoretical explanation for variation in the substantive content of foreign policy' (2010, p. 10), while realist, institutionalist and non-rational approaches lack a persuasive account of this variation.

Regime theory and arms control

Looking at the costs and benefits of arms control agreements, several issues can be relevant for a state's decision whether or not to join a treaty regime:

1. Verification / inspections & enforcement: are there any verification measures for the arms control treaty at hand and how strong are those measures? According to Michael Moodie (2009), many developing countries call for strong verifications measures for all arms control agreements. For some countries, 'verification is a sine qua non for arms control' (Moodie 2009, p. 161). Thus, this could mean that states decide not to join an international treaty when they believe it doesn't have a (/an effective) verification regime. The same goes for enforcement: how does the treaty address violations of the treaty? Some states might fear a robust enforcement regime because they have concerns about abuse (Pearson 2000). On the other hand can a weak enforcement regime undermine the arms control treaty as a whole and thus deter states from joining it.
2. Provisions in the regime on technology access / dual-use technologies: Moodie speaks about the 'often contentious dispute between developed countries and many developing nations regarding provisions in most arms control agreements that oblige states parties to provide cooperation and assistance in the promotion of relevant science and technology for peaceful purposes' (2009, p. 161). Arms control treaties such as the Non-Proliferation Treaty include provisions that guarantee the right of all parties to use the technology at hand for peaceful purposes. This can be an important incentive for developing countries to join nonproliferation treaties. But these provisions can be subject to much debate. For example because more technologically advanced states try to restrict access to more advanced nuclear technologies, because they fear this might result in proliferation.

3. Theoretical framework / concepts 2: New Liberalism

Basic assumptions

Even though many other issues and actors are studied by international relations scholars, the study of international relations has traditionally focused on relations among and between states: why do nation-states go to war? What kind of international order can and should be built in the absence of a world government? Under what circumstances do states cooperate? The main contending theoretical traditions - realism (including neo- or structural realism), liberalism (including neoliberal institutionalism) and constructivism - offer different answers to such questions based on assumptions that are partly rather similar and partly different.

Realists see international relations as a struggle for power between self-interested states. The believe states are the dominant actors and represent the key units of analysis in a world lacking a higher authority / world government, even though realists such as Kenneth Waltz and John Mearsheimer focus on the *structure* of the international system and what they believe is its central feature: anarchy (by which they usually mean a world without a centralized higher authority).

The term (social) constructivism is usually used to describe theories that focus on 'human awareness or consciousness and its place in world affairs' (Jackson and Sørensen 2003, p. 253). In other words: constructivists look at the role of ideas in international politics. They do acknowledge that material power and interests matter, but they believe they matter because of the ideas and beliefs behind them: 'The claim is (…) that power and interests have the effects they do in virtue of the ideas that make them up. Power and interest explanations *presuppose* ideas, and to that extent are not rivals to ideational explanations at all' (Wendt 1999, p. 135-136).

While realists focus on power and conflict and have a rather pessimistic view on international relations, liberals are primarily focused on international cooperation and collaboration and the conditions under which these become possible. There are several strands of liberal thought[3]. Interdependence liberals, for example, are especially interested in economic ties of mutual exchange as well as mutual dependence. They believe the international economy has led to

[3] See, for example, Jackson and Sørensen 2003

more interdependence between states, reducing the risk of violent conflict between states. Institutional liberals, on the other hand, focus on the way international institutions help promote international cooperation. A third strand called republican liberalism (also known as the democratic peace theory) is built on the idea that democracies do not fight each other. In general, however, Viotti and Kauppi believe liberals share the following basic assumptions:

1. Both state and non-state actors are important in global politics. For example: liberals believe transnational actors such as international organizations and multinational corporations can play role just as important as states. This is why 'liberals prefer *world* or *global* politics rather than *international* politics' (Viotti & Kauppi 2011, p. 129). Moravcsik (2010) emphasizes that liberals assume that social groups, both domestic and transnational, shape state preferences. Therefore, the state is not an unitary actor in the way realists claim;
2. The second basic assumption is linked to the first one: (international) politics is embedded in a social context: factors at the state-society and individual level decisively constrain and affect the purposes and possibilities of governments, as well as international relations and outcomes (see also Moravcsik 1992, p. 7);
3. The assumption of rationality: 'state leaders and their domestic supporters engage in foreign policy for the instrumental purpose of securing benefits provided by (or avoiding costs imposed by) actors outside of their borders, and in making such calculations, states seek to deploy the most cost-effective means to achieve whatever their ends (preferences) may be' (Moravcsik 2010, p. 2);
4. Economic, social, cultural and political ties among state and non-state actors tend 'to have if not a pacifying, then at least a moderating effect on state behavior' (Viotti & Kauppi 2011, p. 130);
5. Unlike realists, liberals think many other issues (environmental, economic, social) than just security are important in international politics;
6. Liberals believe their key task is to explain under what conditions international cooperation can emerge, deepen and/or widen.

Liberalism and international cooperation

Liberals are much more interested in and optimistic about international cooperation or collaboration than realists. Not power and capabilities, but state preferences and interests are

central to liberal international relations theory. The consequence of emphasizing preferences and interests over power and security is that cooperation is much easier: states worry less about relative gains and more about absolute gains (Stein (1982) emphasizes that when states are trying to maximize relative gains, there are no common interests). It's less about (security) advantages in comparison to other states and more about common interests and maximizing absolute gains for one's own state. Thus, to liberals, cooperation between states can be perfectly rational: 'when people employ their reason they can achieve mutually beneficial cooperation' (Jackson and Sørensen 2003, p. 107).

Liberals do recognize that states are self-interested and, at least to a certain extent, competitive. While liberals usually don't use the word "anarchy", they also recognize that there is no centralized higher authority in the international environment. However, they do not believe the absence of such an authority (and thus the anarchic world system) impedes international cooperation. On the contrary: 'order emerges as self-interested actors coexisting in an anarchic environment reach autonomous and independent decisions that lead to mutually desirable cooperative outcomes' (Stein 1993, p. 8).

An important factor in liberal theories of international cooperation is domestic politics. Liberals believe every state's basis purposes and interests are shaped by the interdependent domestic and transnational society in which it is embedded: 'state-society relations (…) have a fundamental impact on state behavior in world politics' (Moravcsik 1997, p. 513). According to this approach, whether a state cooperates or not cannot be explained by system level studies that look at power, interests and institutions, 'since this depends on the domestic political organization and the dominant internal social norms' (Sitaraman 2009, p. 44).

Moravcsik (2010) distinguishes between three broad categories of liberal theory: ideational liberalism, commercial liberalism and republican liberalism. Each of the three categories has its own ideas on what are the determinants in the domestic realm of state preferences and state behavior – and thus on the decision whether or not to engage in international cooperation in a certain field.

Ideational liberalism

Ideational liberalism states that domestic social values and identities are basic determinants of

state preferences. Social values are defined as 'the set of preferences held by various individuals and groups in society concerning the proper scope and nature of legitimate state objectives' (Moravcsik 2010, p. 6). Society will support the government if the government acts according to these social values or identity-based interests and creates legitimate institutions. Between and within nations, there can and will be different ideas on what these social values and legitimate institutions consist of: liberals reject the idea that 'an *automatic* harmony of interest exists among individuals and groups in society: scarcity and differentiation introduce an inevitable measure of competition' (Moravscik 1997, p. 517). Foreign policy of a state will reflect those societal concern and values of those societal actors that are successful in pressuring the government to pursue their goals through, for example, international cooperative efforts.

Particularly important in ideational liberalism are preferences of society regarding national identity, political ideology and socioeconomic regulation. The first one, national identity, is all about the proper location of national borders: it has to do with beliefs 'about the proper scope of the political "nation" and the allocation of citizens right within it' (Moravcsik 2008, p. 241). Liberals argue there is greater potential for inter-state conflict if there is no "match" between patterns of political identity and existing borders, as has 'been in the Balkans for over 100 years' or is the case in 'Taiwan —the one jurisdiction where borders and national identity (…) are subject to competing claims' Moravcsik 2010, p. 7).

The second one, political ideology, has to do with social preferences pertaining to the nature of political institutions and the 'commitment of individuals and groups' (Moravcsik 1997, p. 527), to these institutions. Conflict is more likely when, for example, there is a high degree of ideological distance among domestic regime types of states. This appears to have been the case during, for example, the Second World War and the wars of the French Revolution.

The third dimension concerns preferences regarding the nature and scope of legitimate socioeconomic regulation and distribution: 'The extent to which countries can cooperate to liberalize markets, for example, depends on the level of conflict or convergence of views about immigration, social welfare, taxation, religious freedom, families, health and safety, environmental and consumer protection, cultural promotion, and many other domestic public

goods' (Moravcsik 2010, p. 7).

Ideational liberalism and arms control

Jennifer E. Sims (2009) mentions several factors of domestic politics that are of importance for arms control agreements and that echo the assumptions of and factors belonging to Moravcsik's three broad categories of liberal theory discussed in this paragraph: ideational liberalism, commercial liberalism and republican liberalism.

The first category of factors she mentions is that of elites, interest groups and public opinions. In a democracy with freedom of speech and freedom of the press, many interests and interest groups can play a role in the domestic debate about arms and arms control. But even in a dictatorship, different interest groups within the government elite can have different and competing interests that are part of (a more secretive) debate. "Hawks" from the military might lobby for a very different position than representatives from the State Department or the Ministry of Economic Affairs. As was mentioned earlier, private industry can also play in important role in the debate. 'Depending on the stakes involved and these groups' organizational skills and recourses, a marketplace for ideas can emerge that results in imaginative and often controversial arms control solutions' (Sims 2009, p. 85).

Leaders (elites) from states could also have other interests than the national interest in mind when discussing arms control treaties. For example: striving for nuclear weapons (and thus not joining or violating the Non-Proliferation Treaty) to divert attention way from domestic issues instead of and to invoke nationalist sentiments and patriotism (Sagan 1996/1997). Ray Takeyh of the Council on Foreign Relations suggests, for example, that President Ahmadinejad of Iran and his followers see the debate over Iran's nuclear program as a welcome distraction from the internal turmoil that erupted after the disputed presidential election of 2009 (Takeyh, 2009).

Another point that can be made here is about how states deal with security threats. Moravcsik points out that the difference between realism and liberalism is not that realist states are primarily concerned about national security and liberal states are not. 'Both theories predict this under specific circumstances. Where the two families of theory genuinely differ is on the sources of security threats themselves, with realists attributing them to particular

configurations of power (against which states balance), whereas liberals attribute them to extreme conflict among ideological, institutional, and material preferences' (Moravcsik 2010, p. 15). This point is also made in arms control theory, for example in literature on the proliferation of nuclear weapons. Sagan states that the acquisition of nuclear weapons 'is likely to serve to parochial bureaucratic or political interests of at least some individual actors within the state' (Sagan, 1996/1997, p. 63). Leaders of states could develop nuclear weapons to distract public opinion from domestic problems and to invoke nationalist sentiments and patriotism. In other words: developing nuclear weapons is not about (or: not only about) the national interest of the state, but more about the interest of certain actors in the state such as political leaders, the bureaucracy or the army.

Glenn Chafetz argues that the world can be divided into core states and periphery states (Ogilvie-White, 1996). The core states are liberal democracies with a shared set of values, sharing more or less the same political ideology. These states are much more inclined to cooperate and thus less inclined for to engage in a (nuclear) arms race. The periphery states are not liberal democracies, do not share norms and values and are therefore more likely to see each other as potential threats.

Commercial liberalism

In commercial liberalism, the domestic and global market position of domestic companies, employees and investors is the determining factor for a state's international behavior. It states that 'changes in the structure of the domestic and global economy alter the costs and benefits of transnational economic exchange, thus creating pressure on domestic governments to facilitate or block such exchanges through appropriate foreign economic and security policies' (Moravcsik 2010, p. 8).

High levels of trade interdependence, for example, will have a pacifying effect, because in 'complex and well-established transnational markets' (Ibidem) it is usually more cost-effective to accumulate wealth through trade than it is through war, sanctions and other coercive means. Thus, market actors may pressure their government to facilitate transnational and free trade and to maintain friendly relations with other states. There can also be pressure on domestic governments for protective measures, for example when 'uncompetitive, monopolistic, or undiversified sectors or factors lose the most from liberalization and have an incentive to oppose it' (Moravcsik 1997, p. 529). Should this lead to protectionism, they may

well be a source of international conflict.

Commercial liberalism and arms control

Sims's second category of factors of domestic politics relevant to arms control agreement is that of prevailing economic and technological conditions. According to Sims, advancements in technology can complicate arms control and thus a state's willingness to participate in arms control treaties. Commercials firms can produce advanced technologies that could be adopted by both the military and individual terrorists. Therefore, (constraints on the use and/or production) of these technologies could also be part of an arms control agreement. The question is then, whether a state considers it wise, feasible and desirable to put constraints on these dual-use technologies producing firms or not. Both Sims and Amitav Malik suggest that many technologically-advances states prefer not to put constraints on their domestic industries: 'maintaining technological superiority over other nations, including friendly nations, continues to be an important aspect of safeguarding national security for most sovereign nations' (Malik 2004, p. 124).

Sims also speaks about the effects of economic conditions on decisions about arms control treaties: 'in prosperous times, commercial industries may exercise their lobbying powers to dissuade political leaders from starting conflicts or rising tensions among trading partners' (2009, p. 83). These industries are already active on a global level, doing business with partners abroad and wish their governments to do the same in a peaceful way. For example by participating in arms control talks.

Republican liberalism

Republican liberalism focuses on the structure of domestic political representation. It states that the mode of domestic politic representation matters, because that will determine whose preferences are institutionally favored. 'A simple consequence is that policy tends to be biased in favor of the governing coalitions or powerful domestic groups favored by representative institutions—whether those groups are administrators (rulers, armies, or bureaucracies) or societal groups that "capture" the state' (Moravcsik 2010, p. 9).

Republican liberalism states that a government's policy depends on which domestic groups are represented, which means that the form of government is relevant to foreign policy. It is for a reason that many scholars (e.g. Sitaraman 2009, Jackson and Sørensen 2003) state that

republican liberalism and the democratic peace theory are the same, even though Moravcsik does not., stating that ‘republican liberal theory thereby helps to explain phenomena as diverse as the "democratic peace", modern imperialism, and international trade and monetary cooperation’ (2010, p. 9).

Moravcsik states that aggressive behavior is more likely in undemocratic and inegalitarian states than in democratic ones. The reason for this is that he assumes that individuals and groups are on the average rational and risk—averse, which means that ‘the more unbiased the range of domestic groups represented, the less likely they will support policies that impose high net costs or risks on a broad range of social actors’ (Moravcsik 1997, p. 531). In, for example, an autocracy or oligarchy, ‘privileged individuals can easily pass costs on to others’ (Ibidem), which makes it easier for those leading individuals to take risks in foreign policy. This doesn’t mean that democracies are always peaceful or that autocracies are always aggressive. What does follow from this is that ‘despotic power, bounded by neither law nor representative institutions’, tends to be wielded in a more *arbitrary* manner by a wider range of individuals, leading both to a wider range of expected outcomes and a more conflictual average’ (Ibidem, p. 532).

Republican liberalism and arms control

According to Jennifer E. Sims (2009), a state’s political en legal institutions for negotiating, concluding and sustaining arms control agreements matter for its decision whether or not to participate in arms control agreements. It is relevant what kind of political institutions in a state have what kind of power: ‘governments with strong executives tend towards greater flexibility and decisiveness in negotiations’, while ‘those with effective legislatures offer enhanced confidence in the durability of agreements even as they may bring delays in their ratification and implementation’ (Sims 2009, p 74). In the United States, for example, the President can negotiate arms control agreements with foreign government, but the United States Senate has to approve the ratification of such agreements. So even though president Obama is in favor of the US joining the Arms Trade Treaty, the United States might never sign or ratify the treaty if he fails to convince the two-thirds majority of the Senate needed for approval. Already, many Senators have voiced their disapproval of president Obama’s position on the Arms Trade Treaty (Pecquet 2013).

4. Theoretical framework / concepts 3: bounded rationality

In general, realism and liberalism in international relations have in common that they assume that states are rational actors[4]: states have a knowledge of alternatives, of consequences (the state either knows the consequences of alternative courses with certainty or knows the probability of possible outcomes) and, crucially, is able to compute which alternative is best, i.e. has the highest expected value (rational actors are optimizers)[5].

However, it does not seem very likely that states are always unified and rational. As Robert Keohane (2005, p. 110) puts it: 'classical rationality is an idealization. It makes more sense to view individuals – and especially governments – as constrained in their abilities to make calculations'. Keohane is referring to problems of "bounded rationality". Moravcsik (1997, 2010) also mentions bounded rationality, but he does not really elaborate on the concept.

The concept of bounded rationality is usually associated with the work of Herbert Simon. In, for example "A Behavorial Model of Rational Choice" (1955), *Models of Bounded Rationality* (first published in 1982) and *Reason in Human Affairs* (1983), the concept of bounded rationality plays an important role.

According to Simon, theories of bounded rationality can be 'generated by relaxing one or more of the assumptions of SEU [SEU = subjective utility, or rational choice, AS] theory' (Simon 1997, p. 291). It is a variant of 'rational choice that takes into account the cognitive limitations of the decision maker – limitations of both knowledge and computational capacity' (Ibidem). Simon thus assumes two types of bounds on human rationality: not only are there limits on what individuals or states know, but also are there limits on the capacity to produce optima, i.e. to find out what is the best alternative with the best possible outcome. Therefore, they will choose an alternative that may not be optimal but will meet minimum requirements, the 'satisficing alternative' (Ibidem, p. 295): 'A decision maker who chooses the best

[4] It is true that the role of reason within neorealism remains a little vague, given the assumption that the state *system* more or less determines actions.
[5] See for example Simon 1997, p. 291

available alternative according to some criterion is said to optimize; one who chooses an alternative that meets or exceeds specified criteria, but that is not guaranteed to be either unique or in any sense the best, is said to satisfice' (Ibidem).

Even though bounded rationality starts with the individual, (governmental) organizations can also be subject to bounded rationality: 'The behavior of organizations mimics the bounded rationality of the actors that inhibit them' (Jones 1999, p. 302). The question is, then, what kind of bounds or problems impede rational decision-making in organizations. The following problems (and factors, bounds) can be identified in literature on bounded rationality (for example Simon 1983, Simon 1997, March 1978, March 1994, Jones 1999, Jones 2002):

1. A limited span of attention: 'Decisions will be affected by the way decision makers attend (or fail to attend) to particular preferences, alternatives and consequences. They will depend on the ecology of attention: who attends to what, and when. Interested participants may not be present at a given decision because they are somewhere else. Something may be overlooked because something else is being attended to' (March 1994, p. 24);
2. The limited capability of organizations to store and retrieve information;
3. A lack of understanding: organizations misinterpret information, don't see the relevance of information or don't link information or are not able to see the right connections;
4. Problems of communication: organizations have difficulties communicating information that is complex and/or specialized. March (1994, p. 10): 'It is difficult to communicate across cultures, across generations, or across professional specialties';
5. Problems of uncertainty: a lack of reliable knowledge and information creates uncertainty about outcomes and consequences'.

Clearly, these are all factors that can also have an impact on decision making within a state. Taking into account Keohane and Moravcsik's statements regarding boundedly rational individuals, it seems to make sense to incorporate these factors of bounded rationality into the theoretical framework of this thesis.

5. Theoretical framework 4: domestic politics and foreign policy – factors

Based on the previous theoretical paragraphs, a conceptual model can be constructed (see box 1). The model summarizes the factors of domestic politics that are relevant for a state's decision making on foreign policy and thus can help explain state participation in (and resistance to) international arms control agreements.

Box 1 – New Liberalism, arms control agreements & factors of domestic politics

Theory	Factors - general	Factors – arms control theory
New Liberalism -Ideational	Social values & identities – preferences, especially those regarding: • National identity • Political ideology • Socioeconomic regulation	Elites, interest groups and public opinion → preferences regarding, for example: • National security • Institution / regime: verification / inspections & enforcement provisions • Institution / regime: technology access / dual-use technologies provisions
New Liberalism - Commercial	Domestic and global market position of domestic companies	Prevailing technological conditions → affecting, e.g., preferences regarding a regime's technology access / dual-use technologies provisions
		Prevailing economic conditions → leading to, e.g., industrial lobbying
New Liberalism -Republican	Structure of domestic political representation	Political and legal institutions
Bounded rationality	Limited span of attention	
	The limited capability of organizations to store and retrieve information	
	A lack of understanding	
	Problems of communication	
	Problems of uncertainty	

6. Answering the research question - method

This thesis will look at the following research question:

To what extent can New Liberalism explain state resistance to and state participation in the regime to prevent biological weapons?

'State participation in the Biological Weapons Convention' means that states either have ratified the BWC or acceded to the BWC. Signing the BWC is not the same as participating in a treaty, since it merely constitutes a preliminary endorsement of the BWC and still has to be followed by an official decision to ratify the BWC.

I will try to answer the research question in two stages. First, I will look at "general" reasons for state participation in or resistance to the BWC that can be found in scientific and professional literature on the BWC and the proliferation of biological weapons. Secondly, I will perform case studies of several states that have either recently joined the BWC or haven't joined the BWC (yet).

On case studies

A case study is 'an intensive study of a single unit for the purpose of understanding a larger class of (similar) units' (Gerring 2004, p. 342) and of 'developing theory (…) regarding the causes of similarities or differences among instances (cases)' (George and Bennett 2005, p. 18). A unit can be seen as a phenomenon of scientific interest that is spatially bounded, for example a person, state or a revolution. It is observed at a single point in time or over a period of time (Gerring 2004).

Case study methods have both advantages and limitations or even potential pitfalls. Gerring (2004) and George and Bennett (2005) identify several advantages of case study methods 'that make them valuable in testing hypotheses and particularly useful for theory development' (George and Bennett 2005, p. 19). Case studies, for example, allow for the

consideration of contextual factors, for the inclusion of particular details and a more "holistic" approach. Flyvbjerg even goes as far as stating that 'predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is therefore more valuable than the vain search for predictive theories and universals' (2004, p. 423). Case studies also enable researchers to look more closely at causal mechanisms: 'within a single case, we can look at a large number of intervening variables and inductively observe any unexpected aspects of the operation of a particular causal mechanism or help identify what conditions present in a case activate the causal mechanism' (George and Bennett 2005, p. 21). Several cases might share the same outcome – for example states ratifying the BWC – but there can be several paths leading to this shared outcome, for example several explanations for states ratifying the BWC. Case studies can have value in identifying the different intervening variables leading states to such an outcome.

George and Bennett (2005) mention several trade-offs, limitations and potential pitfalls of case studies. One example of a trade-off is that between 'the goals of attaining theoretical parsimony, establishing explanatory richness, and keeping the number of cases to be studied manageable' (George and Bennett 2005, p. 31). Thus, it is imperative that case study researchers do not "overgeneralize" their findings. Another example is the relation tension between internal validity and external validity: the 'tension between achieving high internal validity and good historical explanations of particular cases versus making generalizations that apply to broad populations' (Ibidem, p. 22). A example of a limitation is that case studies can only to a certain extent make conclusions on *how much* a variable matters for a certain outcome, unless they include 'a very well-controlled before-after case comparison in which only one independent variable changes', or when 'extremely similar cases differ only in one independent variable' (Ibidem, p. 25). This will often not be the case. It will be, for example, very hard if not impossible to find two states – two cases – that are extremely similar, while such cases do not allow for well-controlled before-after case comparison.

Case studies: states and the BWC

In this thesis, I will conduct three small case studies – that is small qualitative studies on three states - looking at explanations for state participation in or resistance to the BWC. Thus, I will look at the question to what extent intervening variables, in this case domestic politics factors, can explain the outcome, which is a state's participation or lack of participation in the BWC in the individual state at hand.

I believe a case study is appropriate for this thesis. As stated above, a case study enables me to look more closely at an individual state, taking into account contextual factors, looking at several intervening variables, including unexpected ones, at the same time and using a relatively broad range of sources. In my opinion, this a considerable advantage since this thesis is looking for explanations for an *individual* state's position on the BWC as well as the lack of progress towards accession of or ratification in *individual* states. It is hard if not impossible to gain insight in causal mechanisms running decision making on BWC accession or ratification in an individual state without case studies.

Naturally, one should also be careful in making generalizations based on the results of the case studies. If New Liberalism doesn't seem to be able to explain resistance to the BWC in state A, that doesn't mean New Liberalism cannot explain resistance to the BWC in other states B, C and D. And thus, it is not possible to make definitive conclusions on the extent to which New Liberalism can explain state participation in and resistance to the BWC. It should also be noted that it is not easy to gain insight in decision-making processes within individual states, even more so when regards national security issues. Considering both these points, it seems obvious that large-scale studies are needed in order to answer the research question and test hypotheses, for example by engaging in more large-scale case study research and comparative studies. That is not possible in the context of this thesis.

What is possible, however, is to do a small-scale study that might result in 'inconclusive but nevertheless suggestive results that warrant further investigation through larger scale studies' (Fulton 2010, p. 682). This is Harry Eckstein's concept of the plausibility probe: 'plausibility probes involve attempts to determine whether potential validity may reasonably be considered great enough to warrant the pains and costs of testing, which are almost always considerable, but especially so if broad, painstaking comparative studies are undertaken' (Eckstein 1992, pp. 147-148). Plausibility probes are usually studies on 'relatively untested theories and hypotheses' (George and Bennett 2005, p. 75). In general, liberal hypotheses have been tested in many ways, but I have not found any evidence that the credibility of liberal theory in the context of state participation in and resistance to the BWC has been tested. Therefore, I believe the plausibility probes used in this thesis can be a first step towards a more intensive and laborious testing of liberal theory in this context.

Case selection

According to George and Bennett (2005), case selection should be based on two criterions. The first one is the 'relevance to the research objective of the study' (p. 83), which is in this case theory testing. The second criterion is that 'cases should also be selected to provide the kind of control and variation required by the research problem' (Ibidem). Since the objective of this thesis is to do a preliminary test of liberal theory in the context of the state participation in the BWC, I believe I should look for a collection of cases that includes both states that have recently joined the BWC and states that haven't (yet). I also believe I should look at states from different regions for purposes of variation. If I would only select the cases of Israel, Syria and Egypt, for example, this thesis wouldn't provide the variation required, since it seems clear that all three have to deal with more or less the same regional security dynamics of the Middle East. That could be the most powerful explanation for their resistance to joining the BWC. Therefore, states from other regions should also be part of this research.

Based on these criteria I have selected the following cases:

1. Israel
2. Haiti
3. Cameroon

Sources and material used

This research is primarily based on written data: (scientific) books, scientific articles, professional articles and reports. For example: reports on universalization activities by the Implementation Support Unit and the Chairman of the Biological Weapons Convention as well as from the BioWeapons Prevention Project, scientific literature on arms control and the BWC and other articles on websites such as that of the Arms Control Association, the Research Group for Biological Arms Control, The Nuclear Threat Initiative and the Council on Foreign Relations.

It also includes sources on 37 states: the 10 signatories, the 17 states that have neither signed nor acceded to the BWC and 10 states that have recently ratified or acceded to the convention – that is: in or after 2006. The year of 2006 was chosen at random for reasons of space and focus: given the requirements and time available for this thesis, it would not be possible to look at all 160 states that have ratified or acceded to the BWC. Moreover, coordinated

universalization activities of the BWC Party States started in 2006, which was the year of the 6th BWC Review Conference. That means there is much more information available regarding state participation in and resistance to the BWC after 2006 than before. As mentioned before, it is not easy to gain insight in decision-making processes within individual states. Internal documents are, especially when it comes to security issues, often not publicly accessible, and reconstructing decision-making within governmental organizations without such documents is complicated. Moreover, it is often not clear where to look for information within governmental organizations. Thirdly, the quality and quantity of information varies among the 37 states. I have tried to compensate for these difficulties by including a relatively broad range of sources.

Regarding the theories of international relations and – cooperation I have looked a both primary sources from recognized scholars within the different theories and secondary sources.

Since the research will include a relatively broad range of sources, it may lack the methodological precision of some other (more quantitative) studies. This may result in a somewhat impressionistic conclusion. However, I believe this is also a strength, since this method allows for a focus on the big picture. Moreover, since it is rather hard to find much information on the issue, a focus on just one kind of source would in my opinion be too narrow.

7. Why states don't join the BWC

In scientific and professional literature on The Biological Weapons Convention and proliferation of biological weapons, several general reasons can be found why states do not join the BWC.

Proliferation motivations and the BWC

One reason why states might not be not willing to join the BWC is an obvious one: because they have or are seeking to acquire a biological weapons capability and are thus not willing to bind themselves to a treaty outlawing that which they want to keep or acquire. Edward Spiers (2010) speaks about several proliferation motivations. Most motivations Spiers mentions have to do with national security and deterrence.

First, developing a biological weapons capability 'may serve as a deterrent in its own right' (p. 95), just like the development of a chemical weapons capability served as a deterrent for the main adversaries during the World War II. In World War II, all major powers developed chemical weapons as a deterrent to their use, and the Allied forces as well as Germany and Italy adopted no-first-use policies. There is no record of the use of chemical weapons by any power, except for Japan (Brown 2009). Kellman (2007) points out that there is a difference between nuclear deterrence and biological weapons deterrence, since no state is openly pursuing or producing biological arms: 'In contrast to nuclear weapons programs, bioweapons' deterrent effect derives from innuendo and suspicion, not from brandishing armaments' (p. 68). Therefore, he has doubts whether states see biological weapons as an effective deterrent against states with (other) weapons of mass destruction.

Spiers suggest a biological weapons capability may serve as a cheaper and simpler alternative to a nuclear deterrence. Some states – Spiers mentions Britain, the United States and India – saw or see the development of a biological and/or chemical weapons capability as a 'stepping-stone towards the acquisition of a nuclear weapons capability' (p.95). Once these states have

nuclear weapons that can serve as a stronger deterrent against foreign adversaries, they may be willing to get rid of their biological weapons arsenal. Even after declaring a biological weapons program and committing to its dismantling, a state's knowledge about the production of these weapons might still serve as a deterrent.

To states that cannot afford nuclear weapons or lack the knowledge, for example several states in the Middle East, biological weapons can be seen as necessary 'to deter local adversaries' (Spiers 2010, p.95) in regional conflicts (Kellman 2007). They might not disarm in any category of weapons of mass destruction as long as their adversaries won't do the same. Moreover, developing countries facing a threat from a much larger and/or adversary 'might simply be impressed by the military utility of chemical or biological weapons' (Ibidem, p. 95). Iraq, for example, might have considered the use of chemical weapons as the answer against attacks by the much larger Iranian army, that used human wave attacks (Spiers 2010, Ekeus 2003). According to Takeyh (2006), 'the principal strategic utility of chemical weapons is to terrorize the combatants and demoralize the population. Saddam was successful in this regard' (p. 172).

A second motivation for developing a biological weapons capability is that 'states may desire chemical or biological weapons to counter insurgency operations' (Spiers 2010, p. 96). States could use biological weapons because they can be effective against indigenous populations that lack the means to battle diseases. In the 1980s South Africa, for example, had the 'South African Project Coast [that, AS] produced weapons that were not designed for use against an adversary with comparable military power but for use against the indigenous majority' (Kellman 2007, p. 68).

Thirdly, states might want to acquire biological weapons simply because they can. It is relatively easy to produce biological agents rapidly: 'anthrax bacteria can be produced from seed culture in 96 hours, and (.....) the relevant materials can be obtained from natural sources' (Spiers 2010, p. 94). Moreover, pharmaceutical plants and large laboratories can easily be converted to produce biological agents (Spiers 2010, Guillemin 2005). However, according to Kellman (2007) doubts whether or not this claim is (still) valid today, pointing out that there is a big difference between '*what could be* and *what is'*: 'What purpose would such weapons achieve? Just because a weapon can be easily, safely and cheaply built does not answer whether it is worthwhile to do so'. He believes there are many disadvantages for states

with offensive biological weapons programs, due to the universal taboo against biological weapons. Another comment is that while it is relatively easy and cheap to produce biological weapons, actually deploying them in an effective way in an attack is much harder. Changing winds and sunlight, for example, can render several biological weapons ineffective. Also, a state's own troops and citizens might be at risk (Kellman 2007).

It should be pointed out that only a few of the states that haven't signed, acceded to or ratified the BWC have been alleged to be of biological weapons concern, namely Egypt, Syria and Israel (Beard 2007, Kellman 2007), that 'not a single State admits to having a bioweapons program, and there is no proof that any State is, in fact, preparing to commit bioviolence' (Kellman 2007, p. 66). According to Kellman, Syria is one of the leading suspects of having an active biological weapons program, just like Iran and North Korea (two states that have joined the BWC), even though 'as many as ten States might have active bioweapons programs' (2007, p. 69).

Biological Weapons Convention unattractive?

Beard (2007) mentions several other factors why states don't join the BWC. These factors have to do with the regime itself: it is too unattractive to some states and thus those state are not motivated to take the necessary steps towards accession or ratification. In the words of McLaughlin: 'the Convention has not yet been successful in providing non-member States with persuasive motivation for joining' (2009, p. 65).

The first reason why the BWC could be unattractive to possible new members because of its lack of effective compliance measures, and because they see no prospect for serious reform of the BWC. This can be a problem, since states are expected to forego military capabilities, such as biological weapons, and they are more likely to agree to that if they can trust that other states will do the same. But how can you trust other states to do the same without a mechanism to verify state compliance? The BWC doesn't have such a mechanism, which is why 'cheater retain maximum technological flexibility and political deniability' (Kellman 2006, p. 205). In a working paper on the universality of the BWC (2006), the Republic of Korea – after consulting with Japan, Australia, Canada, Switzerland, Norway and New Zealand, also mentions the perceived lack of effectiveness of the regime as a reason for states not join the BWC.

In the past, the BWC 'has been flagrantly violated' ("Biological Weapons Convention", 2012). The Soviet Union maintained a substantial biological weapons program after ratifying the BWC, while in Iraq the UN Special Commission on Iraq (UNSCOM) discovered a program in 1995 even though Iraq was a signatory state at the time ("Iraqi Biological Weapons Program", 1998). Concerns have also been raised by, for example, the United States about compliance by Libya, Iran, North Korea and Cuba - all State Parties - as well as by Syria, a Signatory State. So far, these (suspected) violations have not led to any coordinated strengthening measures. In the 1990s, after 'the BWC's weaknesses were exposed by the Soviet and Iraqi bioweapons program' (Kellman 2007, p. 194), an *Ad Hoc Group* of the State Parties to the BWC was asked to make specific recommendations on effective verification measures in order to strengthen the BWC. For about ten years the development of and negotiations on a new Protocol with verification measures took place, but in the end no agreement was reached. The United States under president George W. Bush was the most outspoken opponent of the new Protocol (Kellman 2007, van der Bruggen and ter Haar 2011). Today, as Kellman states it, 'the BWC has been relegated to the status of an infirm elderly relative worthy of affection and respect yet not really expected to meaningful answers to current challenges' (2007, p. 193). Non-Party states that share this view might think twice before joining the BWC.

The second reason why the BWC might be unattractive is because states fear joining the regime might limit their access to health sciences and biotechnology. Especially developing states may see the BWC as having 'a discriminatory impact on their access to (….) vaccines, diagnostic equipment, advanced biotechnology, and various pharmaceutical products' (Beard 2007, p. 311). Beard believes it is because of the regime's indeterminate provisions that Non-Party States. While, for example, developing states have the right under article X of the BWC 'to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes', 'in practice the developed industrial states have used the indeterminate conditional phrase "for peaceful purposes" in that article to justify the imposition of whatever (…) restrictions they deem appropriate on the transfer and export of dual-use materials, technology, and information' (Beard 2007, p. 312).

Van der Bruggen and ter Haar (2011) believe the key to achieving universalization is to make the BWC more attractive to non-Parties by strengthening it. Just like Beard, they believe it

can help to express the 'commitment in Article X to promote cooperation for peaceful purposes (…) in more concrete terms' (p. 148). They also think it should be made less attractive to stay outside of the BWC by 'installing controls for export of BW-relevant technology for non-Parties' (p. 148). In other words: they too believe joining the BWC can be unattractive to non-Parties because of the regime's indeterminate provisions while staying out of is, in a way, too attractive. The Republic of Korea also has these concerns: it believes the BWC might lack incentives for participation and fears that states believe that 'the cost of implementation remains higher than the cost of not joining' ('Working Paper' 2006, p. 2).

A related issue with the BWC has to do with what Kellman calls the Biodefense Dilemma: 'may a government engage in bioresearch in order to devise protective measures against biothreats if that research has direct and obvious potential for a bioweapons program?' (2007, p. 207). One the one hand, states want to protect their citizens against attacks with biological agents, either by hostile states or by terrorist groups. One way to do that is by developing a biodefense program: research on vaccines and other protective measures. On the other hand, states might fear other states' biodefense programs because of their potential for biological weapons programs. Research into the workings of biological weapons, for example into the workings and application of anthrax, can be part of a biodefense program but its results can also be very relevant for an offensive weapons program. Even if a state has no intention to use the results of its biodefense program or research in the private sphere for a bioweapons program, there is the risk of misuse by other states or terrorist groups. The problem is that the BWC 'has sidestepped a precise definition of what a bioweapons is' (Kellman 2007, p. 208) and that there are no clear mechanisms that balance two seemingly opposing: transparency and secrecy. Transparency about biodefense activities is needed to build confidence that a state's biodefense program is not a cover for an offensive program. Secrecy might be important for parts of a biodefense program because states want to prevent research results being used for harmful purposes.

Lack of awareness & misunderstandings

McLaughlin (2009) mentions several factors that have to do with a lack of awareness of and accurate information on the BWC, especially in countries without 'sophisticated or reliable communication systems' (p. 66). Prior to the 6th Review Conference of the BWC in 2006, there have been no concerted efforts to raise awareness of the Biological Weapons Convention. Several countries came into existence or gained independence after the BWC

entered into force in 1975, which probably means they haven't been made aware of the BWC before 2006. Those states that were interested but needed more information didn't always know where to get it because of the 'low level of institutionalization (Working Paper 2006, p.2): there was no permanent secretariat or support unit before 2006, when the 6th Review Conference decided to create the Implementation Support Unit. Another problem can be that state officials do not know how to deal with the BWC within their own government and bureaucracy. The result of which can be that some States just give up and turn their attention to other issues.

A result of this lack of awareness and information that also prevents states from joining the BWC is that there can be misunderstandings about the regime. States, for example, don't know the difference between the Biological Weapons Convention and the Chemical Weapons Convention. Another example is that states believe there is no need to join the BWC because they don't have, never had and never pursued a biological weapons program.

The lack of awareness seems to play a role in several states. Representatives of Myanmar and Nepal have both signaled a lack of awareness in their country about the BWC. Most of the small island states in the Pacific (Kiribati, Micronesia, Nauru, Nieu, Samoa, Tuvalu) also seem unaware of the BWC. Letters from State Parties or NGOs have been left unanswered (e.g. Tuvalu, Kiribati) and participation by states in BWC workshops have not led to any progress or feedback (e.g. Micronesia, Nauru) ("Report of the Chairman" 2007, 2008, 2010, 2012, "Status of Universalization" 2011). It should be noted that several of these states – Kiribati, Samoa and Tuvalu - are among the least-developed countries in the world. This could mean they have other priorities and concerns than joining the BWC.

Joining and implementation costs / problems of capacity

States that are either poor, small or both may see the (financial) costs for joining and implementing the BWC as too big a burden. States that join the BWC commit themselves to legally binding obligations but also to several measures to promote the implementation of the BWC in an effective way: for example the designation of national contact points, submitting reports containing information on the national implementation of Article X and Confidence-Building Measures (CMBs) such as the annual exchange between the State Parties of information regarding biodefense programs, outbreaks of infectious diseases and past offensive programs. Implementing and executing these measures as well as preparing and

implementing new legislation can be a time-consuming business, and thus states that join the BWC are asked to invest both a significant amount of time and money. (McLaughlin 2009, van der Bruggen and ter Haar 2011). This might prevent states from joining the BWC: 'In combination with the high number of other security concerns that require ratification and implementation, this places a high resource burden on the administration of countries' (McLaughlin 2009, p. 66).

Other political priorities

If states don't think that biological weapons pose a real threat and they are confronted with other security issues, they might choose not to join the BWC and focus their time and effort on these other security issues. Moreover, there are many reasons why other issues than national and international security can dominate the national agenda, making it harder to get the BWC on top of it. Developing states might have more pressing priorities such as health care, education, the economy, jobs and technical development (Beard 2007, McLaughlin 2009). Guyana, for example, is a Signatory State that seems to have other priorities than the BWC: Guyana has never attended any formal BWC meeting and indicated that other issues were perceived as more pressing, giving Guyana's limited human and financial resources' ("Report of the Chairman" 2008).

Constitutional & organizational difficulties

Another reason that – like other political priorities - has to do with domestic politics is what McLaughlin (2009) calls constitutional and organizational difficulties. Internal political events, such as elections leading to a new government or new political issues suddenly dominating the parliamentary agenda, can result in the process of joining the BWC being delayed or stalled.

Both Myanmar and Nepal have stated their intention to ratify the BWC, but these processes are slowed down because of constitutional and organizational difficulties. Myanmar is in a process of democratic transition since the 2010 general elections (Kipgen 2013), which involves many changes that need priority. In 2011 Myanmar stated its government is reviewing 360 items of legislation, including legislation needed for ratification of the BWC. Nepal is currently working on a new national constitution and, since the negotiations on this new constitution have failed, expecting new elections in 2013 ("Nepal Calls Elections" 2012). It has stated it will bring the BWC to its parliament once work on the new constitution is

complete. (“Report of the Chairman” 2007, 2008, 2010, 2012, “Status of Universalization” 2011).

Another problem can be that within state ‘there is no logical department or agency in place with whom to lodge responsibility for the BWC’ (McLaughlin 2009, p. 67), resulting in endless debate within a government bureaucracy and thus in no progress being made towards accession to or ratifying the BWC. This is or has been the case in Tanzania and Cameroon.

8. Why states do join the BWC

In scientific and professional literature on the BWC several reasons can be found why states do join it. The most dominant explanation for state participation in the BWC has to do with international norms and the taboo against the use and possession of biological weapons.

International norms & the biological weapons taboo

Much is written about the international norm against biological weapons. 'Most nations have embraced the norm that deems these weapons morally repugnant' (Cole 1998). 'The taboo against the use of Biological weapons goes back a long way in history. This stigma is reflected in the international efforts to prevent any individual from becoming a victim of biological weapons through a number of treaties over the last 150 years' (Ilsa 2007 p. 37). Sitaraman speaks about the 'commonly shared prohibitive norms against the use of' biological (and chemical) weapons (2009, p. 80).

The Biological Weapons Convention is generally seen as the codification of the taboo against biological weapons, even though its 'weak participation brings little legitimacy and importance to its obligations' (Ilsa 2007, p. 40). Therefore, not being a party to the BWC can be seen as problematic for a state's reputation and relationship with other states. According to McLaughlin, 'not being seen as a 'weak link' in the global non-proliferation or constituting a 'safe haven' for non-state actors and being inadvertently responsible for the spread of disease is a persuasive driver for States to join the BWC' (2009, p. 68).

It is clear that the efforts by the State Parties to the BWC to convince Non-Party States to join are mainly based on this argument. Paul van den IJssel, who, as the president-designate of the 2011 Biological Weapons Convention Review Conference, had a special responsibility for the universalization of the BWC, stated that he didn't any 'good reason [to refrain from joining the BWC] because then you don't subscribe to the norm' (Meier 2011). His predecessor Masood Khan from Pakistan mentioned that joining the BWC 'will lead to international recognition' (Khan 2007, p. 72) and stressed that 'the struggle against them [biological weapons AS] must (…) be shared across the international community' (Ibidem, p. 71). In a

paper submitted to the 6th BWC Review Conference, several Latin-American states underline the 'importance of promoting international cooperation' as an incentive to achieve universality and the need to 'strengthen the norm that prohibits the use of biological weapons' ('Universalization' 2006, p. 1).

Other reasons why states join the BWC have to do with security concerns and (perceived) benefits from technological exchanges and cooperation between states party to the BWC.

Other reasons – security

Biological weapons are considered to be weapons of mass destruction, can have 'devastating' economic effects (Khan 2007, p. 71), can not only be used against humans but also against livestock and crops and are relatively easy to develop, transfer and conceal. These are all reasons why states can believe it is their interest of their national security to combat biological weapons and do all they can to reduce the risks that outcomes of life sciences research will be misused. Joining the BWC – even though one can name many reasons why it is not that attractive – is one way of doing that and maybe the most important way to do that on an international scale.

There are two reasons why the threat posed by biological weapons can be perceived to be more serious today. First, accelerating advances of bioscience create more possibilities to commit bioviolence (Kellman 2007).

Secondly, 'there is a growing risk that biological weapons may be obtained and used by non-state actors, including terrorist groups' (Khan 2007, p. 71). According to Cronin (2003) and Interpol Secretary General Ronald K. Noble (Kellman 2007), there are several reasons for increased potential use of biological weapons by terrorist groups. First, there is evidence that terrorist groups have a strong interest in using biological weapons and are planning to do so. Secondly, as biotechnology industries continue to expand, more information on biological agents and stockpiles are available. A third reason is 'the growth of militant religious groups with political agendas as a percentage of all terrorist groups' (Cronin 2003, p. 2). And finally the internationalization of the threat of terrorism increases the risk: terrorist groups are much less bound by geographical constraints, have more options for recruitment and can basically strike in almost any part of the world.

Joining the BWC increases possibilities for cooperation and information exchange on these security issues among State Parties, supported by the Implementation Support Unit.

Other reasons – benefits from technological exchanges

Another reason for states to join the BWC that is frequently pointed out is that State Parties can benefit from technological exchanges. Khan (2007) mentions Article X of the BWC when stating that the BWC 'supports the development of the peaceful uses of biological science and technology (2007, p. 71) and can strengthen public health care, agriculture and emergency management. According to McLaughlin many states are especially interested in these benefits, even though she points out that more attention is needed to 'demonstrate some concrete gains that joining the BWC offers' (2007, p. 68). The papers already mentioned in this thesis by the Republic of Korea (2006) and several Latin-American states (2006) also point out the same possible advantages for states joining the BWC.

Thus, even though some states may think the BWC is not that attractive because of its lack of technological or economic incentives of participation, other states may have a different view and, for example, consider the regular meetings between State Parties that facilitate information exchange and support by other State Parties as reason enough to join.

9. Case studies

Israel

Israel has neither signed nor acceded to the BWC. However, Israel has been granted the observer status during the Fourth BWC Review Conference in 1991. Representatives of the state have attended several BWC meetings, including meetings on the issue of universalization, for example a universalization meeting in Geneva in 2011, EU Joint Action preparatory meetings in Brussel, Geneva and New York and a EU Joint Action regional seminar for the Middle East in 2008. During these meetings and in letters to the Chairman of the BWC, Israel has states several times that regional circumstances are the reason why Israel is not joining the BWC.

Much has been written about the unstable and complicated situation in the Middle East region that comes with many security concerns and that complicates universalization efforts in the region. Usually, the case of Israel and the BWC is linked to the cases of Syria and Egypt, two states in the Middle East region that have signed but not ratified the BWC. According to Paul van de IJssel from the Netherlands, who – being the president-designate of the 2011 Review Conference – spoke to several states in the Middle East about joining the BWC, the position of Israel, Egypt and Syria is slightly different from other Non-Party States, for several reasons.

First of all, several states in the Middle East are suspected of having an offensive biological weapons program as well as other weapons of mass destruction. As mentioned before, Syria is one of the leading suspects of having an offensive biological weapons program, and Israel and Egypt have been alleged of having a biological weapons program, too. German, Israeli and American sources have stated that Syria has or probably has biological weapons, while a Swedish Defense Agency has found no evidence of an offensive or even defensive program ("Syria" 2013). Recently, there have been many reports in the press regarding the use of chemical weapons by the Syrian army in Syria's civil war (e.g. Watkins and Vandoorne 2013). There exists no consensus on the status of Israel's offensive biological weapons

programs, but Israel does publish defensive research on biological agents (Guillemin 2005). Israel has made allegations that Egypt is doing research to develop biological weapons, but in general most experts do not believe Egypt has the necessary means to develop or produce biological weapons ("Egypt" 2013). Iran should also be mentioned, because of its suspected activities regarding nuclear, biological and chemical weapons, even though so far there does not seem to be conclusive evidence to back up these suspicions ("Iran" 2013).

Secondly, Israel as well as Syria and Egypt 'link the behavior of other states to whether they will join the BWC' (Meier 2011). 'Considerable evidence suggests that a variety of defensive and deterrent motivations may inform the preferences of states there with respect to biological weapons (Beard 2007, p. 292). Israel is very concerned about the current regional situation and threats posed by both states in the region and terrorist organizations using weapons of mass destruction. Therefore, Israel has declared that it would only consider discussions on the BWC and other regimes (NPT, Chemical Weapons Convention/CWC) after the establishment of 'confidence building measures, good neighbourliness, and regional security frameworks' that would be the start of 'a gradual regional process' (Friedman 2009, p. 48). Syria, officially is still at war with Israel, and Egypt have done the same ("Status of Universalization" 2011).

The second issue (which is linked to the first issue) in the Middle East is the link between biological weapons and de BWC on the one hand, and the NPT en CWC and nuclear weapons and chemical weapons on the other hand. Israel is widely believed to possess nuclear weapons while other states such as Syria and Egypt don't posses nuclear devices. According to Beard, 'the legacy of several conflicts' involving the use of weapons of mass destruction in the Middle East has created 'the strategic perception that the best deterrent against such weapons [weapons of mass destruction, AS] is the ability to launch an in-kind response' (2007, p. 292). In other words, regional rivals such as Israel and Syria will want to at least suggest that they are able to deploy weapons of mass destruction in order to deter to other state from attacking or sponsoring an attack with WMDs. What follows is that states that do not possess nuclear weapons will focus on other WMDs like biological weapons. This could be an explanation why Syria might be interested in or having a biological weapons program.

However, Israel's position on the BWC is not necessarily exclusively linked to Syria and Egypt's position and behavior. Israelis consider the Iranian nuclear threat as the most serious

one facing them. Two thirds of the respondents of a poll done in 2012 gave this threat a score of 7, the highest score on the scale. The second most serious the threat is that of enemy states gaining possession of chemical and biological weapons with an average score of 5.9. These results are almost identical with those reported in 2007 and 2009, indicating a consistent perception over time. When asked what Israel should do if Iran achieves a military nuclear capability, 78% of the respondents maintained that Israel should maintain its nuclear weapons even if that meant Iran would develop and maintain nuclear weapons. Moreover, 62% of the Israelis oppose the proposal to declare the Middle East region an area free of weapons of mass destruction (Ben Meir and Bagno-Moldavsky 2013). While these are just polls and preferences can change over time, these numbers do indicate the public opinion in Israel is very concerned with national security and that there is widespread support for Israel's (alleged) possession of weapons of mass destruction.

Friedman (2009) speaks about states in the region that 'are not at peace with Israel, and even threaten its existence' (p.48), pointing out that some of these states have signed and ratified the Biological Weapons Convention. The problem is, according to Friedman, on the one hand intelligence data suggests that these states have weapons of mass destruction, while on the other hand the BWC (and other arms control regimes) seems incapable of preventing this, even in states that have ratified the BWC. Thus, 'in the current situation, where the convention has no effective verification mechanisms, it cannot guarantee that these states do not possess BW (biological weapons)' (Ibidem). Moreover, Israel fears the threat of terrorist organizations and does not seem to believe that international arms control regimes can be very effective in preventing these organizations from developing, procuring and using weapons of mass destruction.

While representatives Israel have repeatedly stated that Israel (more or less) support the aims and objectives of the BWC it does seem true it does not seem likely that Israel will join the BWC in the near future (Friedman 2009, "Status of Universalization" 2011).

Haiti

Haiti is the poorest country of the Western Hemisphere and is listed the United Nations' list of least-developed countries. Since gaining independence in 1804, the country has been subject to much political violence and unrest, instability, poverty and environmental

degradation.

Haiti signed the BWC in 1972, but hasn't ratified it yet. However, following bilateral discussions on the subject with Canada and Brazil, it has recently shown interest in ratifying the BWC ("Report of the Chairman" 2009, "Status of Universalization" 2011). Since 2003, Haiti has participated in several BWC meetings, including the 6th Review Conference of 2006 and an awareness raising and universalization seminar in 2008.

However, several problems complicate Haiti's ratification of the BWC. First, even though representatives have expressed interest in the BWC, awareness in Haiti was relatively low. In 2008, Haitian diplomats pointed out that they still needed to raise awareness in their own country, and that their own Ministry of Foreign Affairs did not really see the need to ratify the BWC given other priorities and problems in Haiti (Report of the Chairman" 2007, 2008).

Second, Haiti didn't have the resources and personnel to ratify the BWC. In 2007 and 2008, Haiti repeatedly requested assistance from other State Parties, but it took some time before that assistance came ("Haiti" 2009). In 2009, Canada had several meetings with Haiti on ratification of the BWC, resulting in some progress.

Third, even after the Haitian government seemed to be aware of the BWC and ready to ratify it, the earthquake of January 2010 halted the process of ratification ("Report of the Chairman" 2008). The Haitian government indicated in 2011 it was ready to continue the process ("Report of the Chairman" 2012). Haiti has already ratified the Chemical Weapons Convention, this happened when ratification of the CWC received parliamentary approval in 2006.

Cameroon

Cameroon is not on the United Nations list of least-developed countries, but its 'economic development has been retarded by economic mismanagement, persuasive corruption, and a challenging business development' ("Cameroon" 2009, p. 26).

While Cameroon was not among that states that signed the BWC when it entered into force,

reports confirm that its accession process had begun in 2007, following several universalization activities by State Parties such as France, the United States and the United Kingdom ("Report of the Chairman" 2008, 2009, 2010) and Haiti's participation in several BWC meetings such as EU Joint Action preparatory meetings in Brussels and New York in 2006. A draft law had been prepared in 2007 by the Ministry of Justice, which was to be the start of the accession process. It was pointed out, however, that accession was unlikely before early 2008 because of the close of the Parliamentary sessions ("Cameroon" 2009, p. 26).

Following a review of the draft law by the Ministry of Defense and advice by the Ministry of Environment and Protection of Nature, the President of Cameroon – who has a strong positioning the central government of Cameroon – was reported to have signed an act of accession to the Convention in 2009. 'All that remains to be done are some administrative formalities and the deposit of the instrument of accession' ("Report of the Chairman" 2009, p. 7). The President of Cameroon signed a presidential ratification decree in May 2010.

However, the actual accession still took some time due to what seemed to be organizational problems within the government of Cameroon. Cameroon requested the ISU for assistance in implementing the BWC, but still had problems depositing the instrument of accession: 'In July 2011, the ISU received by e-mail from the national contact point a scanned copy of the accession instrument, dated 29 October 2009. Unfortunately the original instrument has not been deposited and apparently cannot be located by Cameroon's authorities' ("Status of Universalization" 2011, p. 7). The government of Cameroon spended 2012 trying to locate the original instrument of accession. State Parties such as the United States and the United Kingdom kept in contact with Cameroon in order to monitor Cameroon's progress, offer assistance and pressure Cameroon to accede. In the end, this must have worked, since Cameroon acceded to the BWC in January 2013.

10. Analysis: international cooperation theories and State participation in the BWC

In the conceptual model used for this thesis, the following factors of domestic politics were identified:

- Social values & identities – preferences, especially those regarding:
  - National identity
  - Political ideology
  - Socioeconomic regulation
- Domestic and global market position of domestic companies
- Structure of domestic political representation
- Limited span of attention
- The limited capability of organizations to store and retrieve information
- A lack of understanding
- Problems of communication
- Problems of uncertainty

In order to answer the question to what extent New Liberalism can explain state resistance to and participation in the BWC, I had to look to what extent these factors of domestic politics could explain this.

First I have looked at reasons for participation in the BWC found in scientific and professional literature on The Biological Weapons Convention and proliferation of biological weapons. It seems clear that all of the factors of domestic politics can be related to reasons for states not joining or joining the BWC. States that find the BWC unattractive because they fear joining the regime might limit their access to health sciences and biotechnology can be related to prevailing technological conditions and thus to the domestic and global market position of domestic companies. Organizational difficulties, a lack of awareness and other political priorities can be related to the (domestic) problems of bounded rationality, such as a lack of understanding and limited capabilities of organizations.

In the case studies I have looked more closely at the situation in three states, leading to different results. One could argue that Israel's concern with national security has to do with particular configurations of power in the region, against which Israel is balancing. That would be a realist explanation for Israel's refusal to join the BWC.

Liberal theory states that a state's concern with national security can be attributed to extreme conflict among, for example, ideological, institutional and material preferences. There are indications that this is the case. What follows from Israel position on the BWC is that Israel does not believe the BWC to be an effective regime. While Israel states its supports the objectives of the BWC and is participating in BWC meetings, it also points out that it doesn't see the point of joining the BWC because it cannot trust the BWC to be effective. 'Given the array of global and regional threats, and given the inability of the BTWC [BWC, AS] to ensure that BW will not be used by hostile states or organizations, Israel cannot assume that the BTWC will prevent BW use against Israel' (Friedman 2009, p. 48).

Secondly, the question can be raised whether Israel really supports the aims of the BWC? In other words: do Israelis (individuals and groups in Israel) believe in the world should be free of weapons of mass destruction? It is hard to answer that question, but the case study on Israel suggests that Israeli's have a different perception of this issue than maybe many other states.

Thus, these seem to be factors of domestic politics: social values & identities in Israel leading to specific perception regarding national security and characteristics of the regime against biological weapons.

The lack of progress being made with the accession or ratification process of other states, such as Haiti, has little to do with a concern about national security and more with other factors of domestic politics. In the case of Haiti and Cameroon, these states are willing to joining the BWC following pressure by the international community – which might be considered a more constructivist explanation for their position – but encounter difficulties when they are trying to do so or have other priorities. In the case of Cameroon, the structure of political institutions – with the President as a strong executive – eased decision-making regarding accession to the BWC, but organizational problems halted the accession process, at least for a few years. Both in Cameroon and Haiti, there seemed to be a lack of awareness and more attention for other political priorities.

The reasons why many of these states find it hard to join the BWC can be related to problems of bounded rationality. What can be seen in several states is a limited span of attention, a limited capability to store and retrieve information, a lack of understanding of the BWC (the idea that states think they don't need to join because they don't have or join biological weapons), problems of communication and problems of uncertainty.

Finally, it is interesting to notice that not all reasons for not joining the BWC found in professional and scientific literature can be translated to specific reasons belonging to individual states. For example, several authors as well as State Parties have mentioned the lack of technological and economic incentives for joining the BWC. However, when looking at individual cases, this reason remains implicit at best.

11. Concluding remarks

In this research, I have tried to link theory of international cooperation to the case of universalization of the BWC. The conclusion of this research is that, as I believe, it is plausible that New Liberalism can explain state participation in and resistance to the BWC to a great deal. However, supplementing Moravcsik theory with problems of bounded rationality seems to increase the explanatory power of his theory.

With the exception if the case of Israel, most reasons I have found during my research for states joining or not joining the BWC have to do with factors of domestic politics. In the case of Israel, more research should be done perceptions regarding national security and international cooperation in order to answer my research question more extensively.

As already mentioned, 'plausibility probes involve attempts to determine whether potential validity may reasonably be considered great enough to warrant the pains and costs of testing, which are almost always considerable, but especially so if broad, painstaking comparative studies are undertaken'. This thesis didn't allow for in-depth studies of decision-making on participation in the BWC in each individual state, but as a probability probe it might be a reason for the further research that would be desirable to those who are interested in answering the research question of this thesis more extensively.

Another point is that it might be relevant to include the concept of bounded rationality into research regarding state participation in the BWC. Many reasons why states do not join the BWC can be better explained with the help of this concept, while the three theories of international cooperation might have problems covering all the reasons.

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