Name and Shame: Unravelling the Stigmatization of Weapons of Mass Destruction

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Abstract: Weapons of Mass Destruction (WMD) is internationally recognized to categorize nuclear, chemical, and biological weapons. Despite their joint categorization, each weapon is distinct from the other and use and possession are treated differently. Previous studies have focused on technological aspects of these weapons, failing to examine and explain the distinct nature and underlying significance of this term. Adopting a constructivist approach, and utilizing sociological research, this work addresses this gap by restoring the underlying strategic and ethical significance of the concept of WMD. The article stresses stigmatization of WMD by the international community. The evolving condemnation of chemical and biological weapons forged the stigma and led to the condemnation of nuclear weapons. WMD have been framed as a threat to humanity due to their ability to create widespread, long-term, irreversible destruction. WMD have also been associated with elevated status and power. These two aspects cannot be separated from each other. The article shows that the actors involved in stigmatization have varied. Initially, the stigma emerged top-down, via government officials. In time, grass roots movements and the general public have also condemned these weapons. Secondly, stigmatizing was driven by perceptions of social, economic, and political power, which elevated the status of these weapons. Stigmatization then developed as a reaction to the threatened possession and use of WMD by antagonistic actors. The ethical and political processes cannot be distinguished from each other; each has formed to frame the image of the long-term danger of WMD. Understanding this process of stigmatization is of particular importance at a time in which the threat from these weapons has increased. This work therefore provides greater insight and understanding into ways to address this challenging subject.

Nuclear, chemical, and biological weapons – Weapons of Mass Destruction (WMD) – are distinct from any other contemporary weapon of war. All three also differ greatly from each other in the mechanisms and scale of their effects. Collective stigmatization is the characteristic that all three share. Examining the process of stigmatization allows a fuller appreciation of the unique qualities of these weapons, and enables greater insights into the future challenges associated with countering their potential use and proliferation.

The use and proliferation of WMD by states and non-state actors continue to be an ever increasing security threat. It is not only the potential use of nuclear weapons that is of concern; all three weapons pose significant threats. This was highlighted by allegations of the use of chemical weapons in Syria in August 2013.[1] The Center for the Study of Weapons of Mass Destruction at the National Defense University recently published an occasional paper examining the future of WMD in 2030.[2] Within this

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paper, it is argued that WMD continue to be of great importance. WMD are likely to be 'harder to prevent and thus potentially more prevalent in the future'.[3] The paper foresaw lower obstacles to the covert development of nuclear weapons and lower barriers to the use of chemical and biological weapons by states and non-state actors. Of particular concern is the capacity of small groups or lone actors to acquire and employ WMD.[4] I argue that awareness of the increasing threats posed by these weapons intensifies the relevance and importance of maintaining the categorization of WMD. Naming these weapons as distinct maintains global attention and efforts to prevent the threats posed by the development, use, and proliferation of these weapons.

Previous articles in this journal and elsewhere have addressed the destructive significance of the three weapons, examining the categorization of WMD from the focus of one particular weapon and questioning the relevance of the term. It has been argued that the classification of these weapons under the term WMD is no longer necessary and obscures international arms control efforts.[5] This article differs from these previous debates, in that it expands beyond an analysis of the technological distinctions between WMD. These do not explain why WMD remain distinct from other modern methods of warfare, or account for the significance of this term. I argue that we can bridge this gap in understanding by viewing WMD as part of a process of stigmatization; in doing so, we are able to appreciate the wider meaning and significance of these weapons, thereby addressing their future development and status. Adopting a constructivist approach, the focus is upon the collective norms associated with WMD; these are examined as part of a broad process of stigma. The study of stigma is applied to WMD as a distinct category of warfare. By adopting this type of analysis, the technological aspects of these weapons are not as important as the wider meaning and association of all three weapons. This article shows that the stigma has emerged as a result of the strategic and ethical aspects of WMD; neither aspect can be separated from the other. Constructivism denotes that 'there is no such thing as non-normative behavior or pure material self interest, independent of social context'.[6] Understanding and maintaining the categorization of WMD shape the response of the international community to the dangers posed by their potential use and proliferation.

The process of stigmatization is a broad process which has evolved through time, first emerging within the top echelons of authority, amongst policy making and scientific circles. In time, the stigma has also emerged as a bottom-up process; the term 'WMD' has become a familiar term amongst the general public. When examining how the process of stigmatization has emerged and evolved, it is noted that the condemnation of chemical and biological weapons forged the stigma and led to the condemnation of nuclear weapons. This article identifies two distinct themes: firstly, whilst each of the weapons within this category differs from each other, all three have been framed as inhumane due to knowledge of the potential for each to cause mass destruction. Amongst western democratic states, these weapons are viewed with revulsion and horror. The effects of the use of WMD are indiscriminate and unpredictable. This image of these weapons has been projected, initially, by heads of states and through time through grass roots movements and the media. The second theme associated with the stigmatization process is the linkage between the

stigma and an association of power. The potential use and proliferation of WMD by states and non-state actors remain a constant international threat. These weapons have an elevated status due to their distinct quality. Possession of WMD is associated with strategic superiority. Whilst the categorization of WMD denotes their international condemnation, there remains disparity between the legal constraints associated with these weapons. Chemical and biological weapons are proscribed under international law.[7] The possession of nuclear weapons remains acceptable to a small number of states. Addressing this disparity is a complex and challenging process, fuelled by political and strategic concerns. Unravelling the process of the stigmatization of WMD leads to a more comprehensive understanding of ways to address this subject. An historical account of the origins, evolution, and development of the stigma, over the years from 1868 to 1993, provides the basis for this analysis.

Origins of the Term Weapons of Mass Destruction

The term Weapons of Mass Destruction (WMD) was first legally defined in 1948, by the UN Commission for Conventional Armaments, which described WMD as 'Atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above'.[8] The motivation in creating this term was to establish a distinction between the work of the UN Commission of Conventional Armaments and that of the UN Atomic Energy Commission, which had been established two years earlier. 'Both Commissions were established to address the proliferation of new weapons of warfare and both echoed the purpose and aims of the newly created UN, to establish mutual agreements within a cooperative environment'.[9] The creation of the term WMD ensured that the two specialist Commissions were separated in their function and aims. This was of increased importance at this time, as ideological and political differences between the West and the Soviet Union were starting to emerge. These differences were threatening to prevent and obscure any potential agreement.[10]

For the purposes of this study, the latter part of this definition is of particular importance: 'any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above'. This highlights the distinct quality of each of these weapons and provides an insight into the emerging process of stigmatization. At this time, in 1948, all three weapons were recognized to be of an increased threat and distinct from other contemporary methods of warfare. It is this notion of 'destructive effect' that indicates both the strategic elements of these weapons and also their ethical association. Recognition of this has progressively developed throughout history and has been driven by an awareness of the inability to protect against these weapons; all three methods of warfare have the potential to create lasting, long-term destruction.

Throughout the cold war years (1945–1989), the use of the term WMD became central to international arms control initiatives. The term was used to symbolize the collective strategic threat of these weapons. Predominantly, during the cold war years, this term was associated with the large-scale use of thermonuclear weapons.

Politically, the term was used to pacify the ideological animosity between the Soviet Union and the West in order to quell the growing arms race.

Use of this term has continued during the post-cold war period and up to present day. The term is most associated with the George W. Bush administration. Seth Carus notes that within the 2002 National Security Strategy, the term 'WMD appear 24 times'.[11] This term was also used frequently by the media and, as a consequence, has become adopted by the general public.

The Obama administration has continued to adopt usage of the term WMD, indicating that it best encompasses the dangerous potential of these weapons. The 2010 National Security Strategy provides some indication of a desire to separate the language of the Bush administration and the Obama administration. When describing the collective threats posed by these weapons, the Strategy states that, 'The gravest danger to the American people and global security continues to come from WMD, particularly nuclear weapons'.[12] The term is also used again when addressing the need to deny terrorists WMD.[13]

The 2010 United Kingdom's National Security Strategy also refers to WMD. The heading 'Countering the Threat of Nuclear Weapons and Other Weapons of Mass Destruction' is used, indicating a desire to maintain the distinction between these weapons and other weapons of warfare.[14]

A similar trend is also seen with the North Atlantic Treaty Organization (NATO)'s 2010 Strategic Concept and again within the alliance's 2012 Deterrence and Defence Posture Review. Here, also, the Review states that the security environment faces challenges from threats such as 'WMD'.[15]

The Value of a Constructivist Approach

Constructivist theory enables an understanding of the conceptualization of Weapons of Mass Destruction (WMD), as this theory highlights the important role of ideational forces within policy making. It is argued that all ideational phenomena are socially constructed, the 'identities, interests and behaviours of political agents are socially constructed by collective meanings, interpretations and assumptions about the world'.[16]

Theories of rationality are not refuted; rather constructivism examines how 'rational considerations are brought to bear in collective human enterprises and situations'.[17] It should be noted here that constructivism, as with other international relations (IR) theories, is a broad school of thought. This paper adopts the interpretation advocated by Alexander Wendt that the 'concept of anarchy is an inherently conflictual, pre-existing entity that does not exist; anarchy is what states make of it'.[18] It is, itself, formed by the identities and interests of states. Identities and interests are linked; identities are the basis of interests. These are themselves shaped by collective meanings, which constitute the structures that organize our actions. Actors acquire identities 'by participating in such collective meanings'.[19] These collective meanings are shaped by norms which Peter Katzenstein defines as 'collective expectations for the proper behaviour of actors with a given identity'.[20] To expand upon this further, a norm can be understood as a 'standard of appropriate behaviour for

actors with a given identity'.[21] Wendt clarifies the role of collective meanings (norms) by using the example of the norm of sovereignty. States develop shared norms as to what it means to be a sovereign state. Wendt argues that if states stopped acting on these norms, their identity as 'sovereigns', if not necessarily as 'states', would disappear. He notes that the sovereign state is an ongoing accomplishment of practice, not a once-and-for-all creation of norms somehow existing apart from practice.[22]

It is recognized that there are different types of norms, specifically, regulative and constitutive norms. Norms operate like rules defining (and thus constituting) an identity; in this way, norms have a 'constitutive effect'. They specify what actions will cause relevant others to recognize a particular identity.[23] This is relevant to the study of stigma as constitutive norms add to the sociological research emphasizing the distinct quality of WMD. Norms also act as standards; in such instances, norms have a 'regulative effect'; they specify standards of proper behaviour. Norms thus either define (constitute) identities, or prescribe (regulate) behaviour, or they do both.[24]

Neither of these processes is distinct. In order to establish order and constrain behaviour, it is necessary to specify the actions that will cause others to recognize a particular identity. When examining the categorization of WMD, it is recognition of the distinct strategic and ethical properties of these weapons that has constrained states behaviour, thus leading to the creation of measures to regulate states' actions and establish international control and proscription of these weapons.

Examining the norms associated with WMD, it can be seen that these weapons transcend the interests of individual states. In this respect, they can be considered as requiring global prohibition. Ethan Nadelmann's work on normative prohibitions highlights that there is a certain category of norm which 'prohibit both in international law and the criminal laws of states, the involvement of states and non state actors in certain activities'.[25] These norms have evolved and exist in the:

> conventions and treaties of international laws and the criminal laws of nation states, but also in the implicit rules and patterns that govern the behaviour of states and non state actors as well as the moral principles embraced by individuals.[26]

The capacity of these norms to influence government policies is based on a reflection of 'cosmopolitan moral views'.[27] These are predominantly of Western, European origin. These views are concerned with how states and individuals treat individual human beings. They transcend the state, 'thereby depoliticizing the individual and emphasizing the existence of an international society of human beings sharing common moral bonds'.[28]

The Significance of Stigma

A wider explanation for the significance of the categorization of Weapons of Mass Destruction (WMD) can be provided by sociological research which examines the conceptualization of stigma. By using research into the process of stigmatization, it is possible to examine the values and norms associated with WMD that have

developed over time into a stigma. This has then shaped their image as inhumane weapons and has evoked efforts towards their proscription and control.

The term stigma is generally understood to signify 'something that is degrading or disgraceful'.[29] It has been associated with labelling; 'stigma denotes a special discrepancy between virtual and actual social identity. It is referred to as an attribute that is deeply discrediting'.[30] The use of this term has traditionally been applied to explain the actions of individuals and groups of individuals. Research into the processes of stigma has focused upon individuals within society who have been socially excluded. These individuals differ in some way from others in society and this difference is associated with disapproval. Examples include: mental disorder, sexuality, the physically impaired, nationality, racial differences, drug addiction, and more. Recently, Rebecca Adler-Nissen has also developed an analysis of stigma in relation to the international relations and the stigmatization of specific states.[31]

Conceptualizing stigma, Link and Phelan note that stigma emerges as: the convergence of inter-related components. Stigma exists when elements of stereotyping, separation, status loss, and discrimination occur together in a power situation that allows them.[32] According to this definition, stigma occurs when:

1. People distinguish and label human differences.
2. Dominant cultural beliefs link labelled persons to undesirable characteristics.
3. Labelled persons are put into distinct categories, 'us and them'.
4. Labelled persons experience status loss and discrimination.
5. Underlying this is the recognition that for stigma to develop, it must be dependent upon social, economic, and political power.[33]

The concept of stigma is understood to develop amongst groups of individuals at different social levels. Erving Goffman notes that there are two faces to stigma, that of the stigmatized and that of society at large and how it defines normality. Stigmas are not, therefore, a reflection of inherent weaknesses in a person's body or character. They are a social label created by the 'reaction' of others in society.[34] The distinguishing of this difference, the process of exclusion and the development of the stigma, is a relational concept. It is dependent on historical context and cultural differences. Similarly, this process of the reaction of others in society and therefore the objects of the stigmatization can change.

Combining Constructivism and Sociological Research: The Development of the Stigma

This research applies the concept of stigma away from individuals and onto Weapons of Mass Destruction (WMD) as a specific category of warfare. The two-way relationship of those stigmatizing and those stigmatized, identified by Goffman, is used here in relation to collective perceptions of nuclear, chemical, and biological weapons. It is argued that the specific character of these weapons and the knowledge of the potential destruction caused by the use of each render them distinct. As a result of this, the international community has stigmatized WMD. The social exclusion is based upon

the shared perception of the strategic and ethical quality of each weapon within this category. This work focuses upon the human reaction towards WMD as a whole. It is the collective image of all three weapons that is so important. The term 'WMD' is synonymous with the stigma. By maintaining this term, reaction to one weapon intensifies reaction to all, thus moving us beyond a discussion of the technological developments and distinctions between each weapon, as well as the intricate legislative challenges associated with each, into a deeper appreciation of the underlying value of this category of warfare. Categorizing these weapons provides an association of discrimination. It is for this reason that the term is of such importance.

In order to determine how the stigmatization of WMD has emerged, two themes can be identified. The first of these is the actors involved in the stigmatizing process. This study primarily addresses the policy decisions and actions of the state; however, in time, as the stigma has developed, a wider number of actors have contributed to the stigmatizing process, transcending the state. Scientific experts, policy experts, and, eventually, the general public have condemned these weapons. It is important to note the discursive tools and tactics used by actors to stigmatize WMD, as these detail how the stigma has developed. This paper highlights that these weapons have been associated with images of death and disease. The unpredictable nature of these weapons, coupled with the knowledge of their long-term effects, has embedded this image within the public consciousness. Progressively through time, the association of these weapons has intensified. The stigmatization process has been formed by the framing of these weapons as a threat to society and human kind. The image has slowly developed that use of WMD will lead to the destruction of human life.

The second theme connected to the process of stigmatization is the distinction between the possession and use of these weapons. Possession is construed differently by different actors. WMD are associated with enhanced power and status. The strategic quality of WMD enables any actor in possession of these weapons with a strategic advantage. This is relevant within the context of traditional state-to-state conflict, but also within an asymmetrical context, when viewing the potential acquisition and use of these weapons by non-state actors.[35] In addition, a distinction exists between the possession and use of each of these weapons. Chemical and biological weapons are proscribed by international law.[36] The possession of nuclear weapons is not proscribed. It is accepted that the five nuclear possessing states, the China, France, Russia, the UK, and USA may maintain their nuclear capability; all other states agree not to develop a nuclear capability. This disparity highlights that along with the meaning of the weapons, the actors that possess these weapons are also stigmatized. The meaning of these weapons is inseparable from the perceived identity and interests of the actors that possess them. Within the western mainstream debate, possession of WMD by 'rogue states' and non-state actors is feared and condemned; however, possession of WMD by the five nuclear states is accepted.[37] This then highlights the significance of the development of stigma based upon perceptions of social, economic, and political power.

Using research into the process of stigma, it is possible to distinguish how WMD remain distinct from other contemporary methods of warfare. The utility of modern

technologies, such as excessively injurious weapons, anti-personnel landmines, small arms, and cluster munitions, has meant that these weapons are increasingly seen to be of strategic importance against modern-day security threats. These weapons are also recognized to be of humanitarian concern, causing unnecessary human suffering. For this reason, they have been subjects of international law; in particular, cluster munitions and anti-personnel landmines have prompted international condemnation and action.[38] These weapons have been considered to be 'unacceptable weapons'.[39] Whilst the effects and use of these weapons are seen to challenge the human security agenda, they are not yet seen to be of the magnitude associated with WMD.[40] Examining WMD as part of a process of stigmatization enables us to appreciate further the social and political aspects of this process. The destructive quality of WMD has been highlighted by the media through news broadcasts, film, plays, documentary, and music. Grassroots movements have also protested against the potential effects of WMD. The use of all three weapons is associated with total irreversible destruction and the loss of human life. WMD have also been associated with an image of elevated status and a perception of power and political superiority. They are considered to be of great strategic significance.[41] As yet, modern military technologies do not project this same association. Whilst targeting the civilian population, causing indiscriminate harm and unnecessary suffering, they do not carry the same political and social connotations as WMD. The stigmatization of WMD has progressively developed through time. Stigma is an ever changing process.[42] It is possible that, in time, the perception of these modern weapons may change. For now, however, the distinct qualities of WMD ensure their unique status.

The Strategic Quality of Weapons of Mass Destruction

Nuclear, chemical, and biological weapons differ greatly from each other in lethality, effect, and availability. The use of each produces a large spectrum of effects which are considered to be extremely difficult to predict and difficult to defend against. Use can be localized, or can result in catastrophic destruction. For this reason, all three weapons, if used, are perceived to provide any actor in possession of a Weapons of Mass Destruction (WMD) capability with elevated political power and a military strategic advantage.

Of the three weapons categorized, nuclear weapons stand out due to their destructive potential. This is due to the sheer power of these weapons (evidenced by their blast effect) and the residual destruction caused by their use. Conventional explosions generate a large amount of energy in a small space, the greater the explosion, the greater amount of compressed energy. The power of the nuclear explosion is vastly higher than that of a conventional explosion. The fireball created by the nuclear blast creates the mushroom shape cloud commonly associated with these weapons. As well as blast power and blast pressure, a nuclear explosion also emits radiation; this extends across the range of the blast and causes long-term, fatal consequences. Nuclear weapons have been used once in history in 1945 against the Japanese cities of Hiroshima and Nagasaki. Their use created devastating consequences.[43]

Recognition of the unique quality of these weapons has led nuclear weapons to be perceived as the 'absolute weapon'.[44] Throughout the cold war years; the threat of the use of nuclear weapons overshadowed any concerns regarding chemical and biological weapons use. Wolfgang Panofsky has argued that,

> If a 1 megaton thermonuclear warhead exploded at optimum altitude over a large city, little would be left standing or alive within 5 miles. A firestorm could be ignited, further extending the range of destruction. In a large-scale exchange, lethal fallout could cover an entire region.[45]

To Panofsky, the only true WMD are nuclear weapons.[46] Acquiring a nuclear weapons capability is a financially costly and highly advanced technological and industrial process. Anne Harrington De Santana notes that from 1945 to 1996, it is estimated that the total cost of American nuclear weapons programmes totalled USD 5.5 trillion.[47] This was approximately one quarter of all spending on American national defence (USD 18.7 trillion).[48] The Ploughshares fund in 2012 has argued that the USA is 'on track to spend USD 620 and 661 billion on nuclear weapons and related programmes over the next decade'.[49] Spending of this kind is not possible for all states and indicates the exceptional image of these weapons.

In contrast to nuclear weapons, chemical and biological weapons can be developed by any state with an advanced pharmaceutical industry; development of each does not require the same resources as nuclear weapons. As a consequence of this, the dual use nature of chemical and biological weapons indicates that these would be more accessible to potential proliferating states or non-state actors. Chemical weapons are seen to cause an effect similar to that of conventional weapons. A chemical attack is an attack using a toxic chemical agent, which when exposed, can kill or incapacitate the human body. Marie Isabelle Cheviere notes that 'If effectively produced and disseminated, chemical weapons have the potential to kill tens of thousands of people, biological weapons hundreds of thousands'.[50] It is the accessibility of these weapons that makes their stigmatization significant. Chemical weapons have often been perceived to be the 'poor man's bomb' and have been considered desirable to states lacking the infrastructure to acquire nuclear weapons.[51]

Of the three, biological weapons remain an unrealized threat and their potential remains to be determined. Christian Enemark identifies that instances of the use of biological weapons have been 'sparse',[52] as the 'extent of harm resulting from their use is highly variable'.[53] Crude forms of biological weapon have been used throughout the centuries; as early as the 14th century, there were instances of siege machines catapulting potentially infectious material into besieged cities.[54] Effective use has proved difficult due to accuracy of the dispersal of material. Technical difficulties and weather conditions have meant that these weapons are not suited as 'battle field weapons, their utility against military forces is limited'.[55] For this reason, there is no documented case of the full-scale use of biological weapons in warfare.[56] Yet, despite this, the perception of the 'unlawful use of bacteria, virus, fungi toxins or other pathogenic materials against the population, government, agriculture, husbandry and general industry' is appalling.[57] Scientific innovation highlights the potential

for these weapons to create destruction similar to that of nuclear weapons: 'a single biological weapon could kill or incapacitate thousands of people even with an inefficient delivery system'.[58] As a weapon of terror, the potential of these weapons is horrifying.[59]

The Ethical Quality of Weapons of Mass Destruction

The continued use of the term 'Weapons of Mass Destruction (WMD)' and the reaction of society at large to these weapons demonstrate the ethical quality of WMD. Academic research has highlighted that moral sentiments can affect the shaping of foreign policy.[60] With reference to WMD, the majority of studies tend to focus upon the individual properties of each weapon within this category. Specifically, the norms associated with nuclear weapons have been examined. Nina Tannenwald's research explores the existence of a nuclear taboo associated with the use of nuclear weapons. The non-use of these weapons has been due to their association as 'abhorrent and unacceptable WMD'.[61] 'Nuclear weapons have come to be viewed with revulsion and have been accepted as different from other methods of warfare'.[62] It should be noted here that Tannenwald's research does identify the stigmatization of nuclear weapons.[63] The arguments presented within this article add to Tannenwald's research by highlighting that the stigma is not confined to just nuclear weapons, it is a broader process and includes chemical and biological weapons, all three being symbolized by the term WMD.

Richard Price and Catherine Jefferson have each separately researched the development of a taboo towards chemical weapons.[64] Within Price's work, he identifies that 'it is generally taken as a given that there is something particularly illegitimate about chemical weapons which makes them a special problem'.[65] Both authors highlight the association and condemnation of these weapons with poisoning. The taboo has been recognized by the international community and policy makers. British Prime Minister David Cameron also noted in 2013 that there existed an 'international taboo against the use of chemical weapons'.[66] This was the basis for a possible British response to allegations of the use of chemical weapons in Syria.

With reference to biological weapons, the development of the norm against biological weapons follows a similar development pattern to that of chemical weapons. Nicholas Simms has noted that the immorality of biological weapons is the underlying reason for their non-use.[67]

This research develops these normative arguments by examining the norms associated with the categorization of WMD as a whole and the significance of this categorization. Examination of the collective categorization of these weapons highlights the relevance of the stigma.

The Emergence of the Stigma: Early Historical Condemnation of Weapons of Mass Destruction

In order to understand how and why the stigmatization of Weapons of Mass Destruction (WMD) is significant, it is necessary to explore the historical origins of this

process. WMD have been framed as distinct due to the immediate and long-term destruction caused by each; this has been perceived as a threat to humanity. An examination of historical materials indicates that the evolving condemnation of chemical and biological weapons forged the stigmatization of nuclear weapons.

The origins of the stigma emerged during the turn of the 20th century as a desire to prevent the proliferation of increasing deadly methods of warfare. This can be seen with the establishment of a military commission in St. Petersburg in 1868, leading to the Declaration of St. Petersburg. Amongst heads of states, there was international recognition that scientific innovation was leading to the increasingly destructive nature of warfare. The belief was that limitation of the tools of war would lead to peace. Representatives attending the commission likened the necessity of this meeting to the welfare and survival of humanity. They stressed that there was a need to prevent the use of overly destructive weapons in times of war between 'civilized nations'.[68] Declaring that the 'progress of civilization should have the effect of alleviating as much as possible the calamities of war'.[69] With reference to WMD, the Declaration specified that 'the employment by their military or naval troops of a projectile of a weight below 400 grammes, which is either explosive or charges with fulminating of inflammable substances' should be renounced.[70] By labelling weapons of this kind as distinct, the representatives at the commission were establishing a precedent that these weapons were uncivilized due to the nature of their effects. This precedent set the seeds for subsequent arms control agreements.

The identification of specific weapons as unethical emerged again in 1899, at The International Peace Conference of The Hague. Here, gas warfare was first condemned. Representatives at the Conference sought to differentiate between weapons deemed acceptable for warfare and newly developed firearms and explosives, more powerful than the kind used at that time. Representatives sought a limitation of explosives of a formidable power and the possible prohibition 'of the use of projectiles, the purpose of which is the spreading of asphyxiating or deleterious gases'.[71] The discussion stressed that these new methods, due to their potential for destruction, posed a threat to humanity. It is important to recognize strategic and political concerns here as these later contributed to the stigmatizing process. At this time, both the American and British representatives were reluctant to press for legal constraints against the development of these weapons as 'no shell emitting such gases was in practical use, or had undergone adequate experiment'.[72] Chemical weapons were a hypothetical threat. Delegates argued that it was unknown what the effects of these weapons may be, and whether in fact, they may be more humane than other conventional weapons in use at this time.[73]

The use of chemical weapons during the First World War changed this view and increased collective efforts to curtail the escalating destruction of warfare. Photographic images and personal accounts of the effects of the use of poison gas highlighted the dangers of these weapons. Chemical weapons were perceived to be technologically distinct from other methods of warfare. The unseen nature of gas warfare and the range of destruction created by these weapons indicated the possibility that gas warfare could be used on civilians as well as on soldiers of war.

At this time, condemnation of these weapons was not solely driven by heads of states. Social and domestic changes, evidenced by peace movements such as the Quaker Movement and also the Movement for Women's Suffrage (Women's Movement), all highlighted powerful expressions of public opinion; these emphasized the ethical quality of these weapons. These began to influence the policy choices of states. Social changes after the war, including the emancipation of women, intensified anti-war protest and prompted policy makers within Europe and the USA to address measures to prevent future war. One of these measures was the use and development of poison gas. Gas warfare was seen to be abhorrent. Protest was fuelled by first-hand accounts from the returning soldiers of their own experiences as victims of the gas attacks.[74] Arguments from the military and the chemical industry, within Europe and the USA, that gas warfare was a 'humane' method of warfare contradicted with the publics' perception of the physical and psychological 'frightfulness' of the gas poisoning experienced.[75] These experiences elevated the distinction between gas warfare and other methods of warfare used at this time. As a consequence, policy makers were forced to recognize and support these sentiments.

The process of stigmatization has also developed as a result of scientific inquiry into the effects of use. Slowly, it was becoming recognized that there is little that can be done to protect against the use of chemical (and potentially biological) weapons or their long-term consequences. Within the League of Nations (1921), a Temporary Mixed Commission composed of scientists, economic, and political experts framed the threat of these weapons around the moral imperative towards the preservation of human kind. The commission concluded that the investigations had proved that the potential use of gas in war is 'so particularly odious that it revolts the conscience of humanity more than any other method of warfare'.[76] It was noted that 'chemical and bacteriological weapons were distinct, a chemical or bacteriological attack carries destruction beyond the fighting lines, touching nation's population, riches and resources of every kind'.[77] The commission recognized that in large doses, there was no complete or effective protection against a chemical or bacteriological attack.[78] In addition, should these weapons be used upon non-combatants, use was perceived to be 'particularly barbarous'.[79] Both of these weapons could be developed from materials readily available within most industrialized states. The knowledge of this enhanced fears that other weapons of a similar nature may be developed. This was the basis for the proscription of these weapons within the Geneva Protocol (1925).[80]

Development of the Stigma: Use of Nuclear Weapons

The use of nuclear weapons in 1945 completed the process of stigmatization and led to the construction of the term Weapons of Mass Destruction (WMD). Knowledge of their devastating potential meant that the development and use of nuclear weapons was a continuing and ever present threat. Throughout Europe, people lived under the four warning, and due to the nuclear umbrella provided by NATO, nuclear weapons were stationed within many European states.[81] During this period, the ethical concerns about the development of nuclear weapons developed and

intensified. These concerns were framed around the possibility of a total nuclear war and also from the fear that nuclear weapons may be used accidentally. In the late 1950s and early 1960s, grassroots movements against nuclear weapons had spread throughout the world, the Ban the Bomb Campaign being an example of this. Health and environmental fears associated with nuclear weapons and nuclear weapons testing fuelled the protest. At this time, the first generation of intermediate-range missiles and tactical nuclear weapons had arrived in Europe, as part of NATO's extended nuclear deterrence arrangements to counter the Soviet threat. The installation of these weapons on western soil had fuelled protest.[82] The image that was portrayed was that 'nuclear weapons were morally abhorrent weapons that would destroy humankind'.[83]

The increasing development of nuclear energy programmes intensified fears of nuclear accidents. Images of the destruction caused by the Three Mile Island nuclear accident in 1979 in Pennsylvania demonstrated this.[84] Nobody died in this accident, but it gathered huge public attention. These events embedded the stigmatization of WMD and highlighted the inability to protect against the nature of these weapons; nuclear poisoning could occur both in peacetime and during war. Once again, the dangers of nuclear weapons were framed around the moral imperative to preserve humanity. The precedent established by the condemnation of chemical weapons, during the inter-war years, fuelled concerns about nuclear weapons and added weight to the association of these weapons with the term 'mass destruction'.

During the 1970s and 1980s, throughout Europe and the USA, the media increased the association of nuclear weapons with death and destruction. Through film and television, the image was projected that the use of these weapons would destroy humanity. The film *Red Alert*, produced in 1977, demonstrated the potential for technological malfunction and projected images of simultaneous nuclear reactors spinning out of control.[85] The imagery here was once again of the total elimination of human kind. The 1983 'Nuclear Winter: Global Consequences of Multiple Nuclear Explosions' report published in the journal *Science* provided a scientific study of the devastating consequences of the use of nuclear weapons. The report provided data to predict that multiple nuclear explosions would result in 'long term exposure to cold, dark and radioactivity and could pose a serious threat to human survivors and to other species'.[86] This study provided further evidence of the need to address and prevent the proliferation and future development of these weapons.[87]

With reference to chemical and biological weapons, scientific investigation into the devastating long-term consequences of their use had been reinvigorated due to the protest against the use of nuclear weapons. All three were associated with mass destruction. UN-sponsored investigations maintained that WMD were distinct from conventional methods of warfare. In the report by UN Secretary-General Thant on Chemical and Bacteriological (Biological) Weapons and the effects of Their Possible Use (1 July 1969), Thant noted that:

> the question of chemical and biological weapons has been over shadowed by the question of nuclear weapons, which have a destructive power several

orders of magnitude greater than that of chemical and biological weapons. Nevertheless, these too are weapons of mass destruction regarded with universal horror.[88]

Embedding the Stigma: The Legal Proscription of Weapons of Mass Destruction

When addressing how the stigma towards Weapons of Mass Destruction (WMD) has developed, it is important to note the political role of stigma. The process of stigmatization operated in tandem with political power. As Neil Cooper notes, 'security issues are socially constructed'.[89] 'It is easier to conjure a security threat if the objects referred to are generally held to be threatening'.[90] This paper has identified that WMD have been projected as a threat to humanity. The relationship between power politics and ethical concerns regarding WMD cannot be distinguished from each other. It is this relationship that has formed the process of the stigma. Throughout the cold war years, attention was focused upon the use of these weapons by states, either as part of the large-scale conflict between the super power states or on a regional basis. As political differences increased between the cold war powers, so too did the stigma. At the same time, as the distinction between WMD and other conventional weapons increased, it enabled the possibility for collective measures to control these weapons. The 1968 Treaty for the Non-Proliferation of Nuclear Weapons (NPT) is a clear example of this; this established the precedent against the further proliferation of nuclear weapons. In doing so, the treaty created a clear distinction between nuclear possessing and non-nuclear states, thus labelling those seeking to acquire these weapons as outsiders. The NPT decrees that it is accepted that a certain number of states may possess nuclear weapons; to all others, possession is condemned. Strategic and political concerns prevented the complete prohibition of nuclear weapons; however, the NPT is seen as 'landmark international treaty' in addressing the threat and proliferation of this category of warfare.[91] An agreement on nuclear weapons proliferation enabled international attention to focus, once more, on the dangers of chemical and biological weapons.

In April 1972, The Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxic Weapons and Their Destruction (BWC) was opened for signature. The Treaty entered into force in March 1975. Agreement on a treaty to address the threat of biological weapons had been driven by the success of the NPT. Ten years later, the collective horror at the images beamed across the world of Saddam Hussein's the use of mustard gas, sarin, and tabun on the Kurdish city of Halabja in 1988, spurred collective recognition of the consequences of the use of chemical weapons. It is estimated that 3,200–5,000 civilians died from these attacks.[92] Once again, the unpredictable use of these weapons was seen to cause unnecessary suffering. Categorizing chemical weapons with nuclear weapons increased awareness of the long-term consequences of these weapons. The condemnation of nuclear and biological weapons enabled the proscription of chemical weapons and led to the final agreement to create the Chemical Weapons Convention in 1997.[93]

Conclusion

In this article, I have argued that nuclear, chemical, and biological weapons, categorized as Weapons of Mass Destruction (WMD), are stigmatized. The process of stigma has developed historically, due to the strategic and ethical quality of these weapons. Labelling nuclear, biological, and chemical weapons together into one distinct category of warfare, enables international attention to focus onto the dangers of these weapons and agreements to be reached to limit their potential development and use. Addressing the threat of these weapons is of particular relevance within the current security environment when facing the potential proliferation of WMD by both states and non-state actors.

When addressing how the stigma has developed, it has been noted that these weapons have been framed as a threat to humanity. The process of stigmatization first emerged at the turn of the century in order to prevent the development of technologically advanced methods of warfare. This was in the hope that if limitations could be placed on the methods of war themselves, then peace could be achieved. In time, the specific strategic and ethical qualities of WMD have become evident. In particular, historically, condemnation of the use of gas warfare led to the development of the stigma. The use of nuclear weapons embedded the stigma further. Concerns over the potential destruction caused by these weapons, and awareness of the inability to protect against their effects, have continued to drive efforts to limit their proliferation.

This work has addressed two distinct themes. First, that the actors involved in the stigmatization process have varied. Initially, the stigma emerged in a top-down process, via heads of state and government officials. In time, grass roots movements and the general public have also condemned these weapons. WMD have been framed as a threat to human kind. Secondly, the stigmatizing process has been driven by perceptions of social, economic, and political power, which have elevated the status of these weapons. The process of stigmatization has formed as a reaction to the threatened possession and use of WMD by antagonistic actors. The ethical and political processes cannot be distinguished from each other; each has formed to frame the image of the long-term danger of WMD. It is recognition of this that has fuelled legal measures to proscribe these weapons. Here, there is also a contradiction. Chemical and biological weapons are proscribed by international law, nuclear weapons are not. For a small number of states, the possession of these weapons is acceptable. Addressing measures to proscribe WMD continues to be a complex and pressing issue. For this reason, the categorization of WMD is of importance as it focuses international attention onto the dangerous potential of these weapons. Knowledge of the stigmatization of these weapons provides an additional insight into this difficult challenge.

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