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Conflict Related Sexual Violence and insurgencies

Why is conflict related sexual violence widely used in some conflicts and less widespread in other conflicts?

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Abstract

Although there has been research into Conflict Related Sexual Violence (CRSV), this research is not sufficient in explaining the variance in CRSV across conflicts and has been proven to make incorrect assumptions. Moreover, there has been little interest in structural causes, through which generalisable assumptions can be made. Therefore, the aim of this research is to explain why conflict related sexual violence is widely used in some conflicts and less widespread in other conflicts. In doing so this thesis looks at the effect of four structural causes that might be underlying causes to CRSV. These structural causes are territorial control, accessing natural resources through extortion, accessing natural resources through smuggling and genocide. The effects of these structural causes are examined for insurgencies between 1998 and 2012. The results of a binary logistic regression analysis show that when insurgents access natural resources through extortion, they are more likely to perpetrate CRSV. Additionally, it shows that insurgents who control territory are more likely to perpetrate CRSV. However, the analysis finds no effect for the structural causes smuggling and genocide. Therefore, territorial control and extortion can help explain why CRSV is used in some conflicts and not in others.

Key words: Conflict related sexual violence, insurgencies, territorial control, natural resources, extortion, smuggling, genocide, structural causes

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1. Introduction

Conflict-Related Sexual Violence (CRSV) is recognised as an autonomous crime that can be punished by international law and is a threat to international security and peacebuilding. Although CRSV is punishable under international law in international and non-international armed conflict, CRSV is still a pressing issue that affects individuals caught in the midst of armed conflicts and organised violence. This form of violence targets individuals based on their gender and is often used as a strategic military weapon (International Committee of the Red Cross, 2022; Germano, 2018). In 2021, the UN confirmed 3.293 instances of CRSV, an increase of 24.3 percent over the previous year. Furthermore, it is believed that for every woman who comes forward to report sexual abuse amid conflict, 10 to 20 incidents go undocumented (UNDP, 2022). Rape and other forms of sexual violence occurs regularly and on a large-scale during battle, some experts argue that there has never been a war or conflict without it (Cohen & Nordas, 2014; 2021). There are between 60.000 and 100.000 verified cases of CRSV during the Bosnian war in Croatia and Bosnia and Herzegovina. Estimates range between 250.000 and 500.000 in Rwanda during the civil war and about 60.000 men, women and children were victims of CRSV during the civil conflict in Sierra Leone. Furthermore, the estimates of the of the civil war in the Democratic Republic of the Congo (DRC) range between 200.000 and 400.000 (Hagen & Yohani, 2010). According to these estimations, CRSV happens on a vast scale in all wars; nonetheless, there are situations in which the use of sexual violence is strikingly restrained despite enormous violence against civilians. For example, during the Israel-Palestine conflict and the Sri Lankan civil war, CRSV casualties were scarce (Hagen & Yohani, 2010 & SVAC, 2021). What explains the fact that CRSV is commonly used in one conflict but not in others? This problem prompts us to consider the following research questions:

> *Why is sexual related violence widely used in some conflicts and less widespread in other conflicts?*

Over the last fifteen years, the problem of CRSV has grown in popularity. This explains the surge in CRSV studies, such as how to define CRSV, explain CRSV, and how CRSV affects communities. In the early 2000s, CRSV research saw wartime sexual violence as opportunistic, motivated largely by private incentives and individual desires (Gottschall, 2004; Wood, 2009; Nordas & Cohen, 2021). Scholars who see CRSV as a weapon or tool of war used to achieve military goals have refuted these claims (Crawford, 2017). Other scholars have argued that the key factors are hypermasculinity, dire life circumstances, lack of embeddedness in family and community, intra-group norms and dynamics, and group cohesion (Wood, 2018; Baaz & Stern, 2009; Butler et al. 2007; Hoover Green, 2018; Whitaker et al. 2019; Cohen, 2016).

To address the research question stated earlier, the focus will be directed towards the behaviour of insurgent groups in relation to CRSV. Making our unit of analysis a particular insurgency in a given calendar-year and our level of analysis state-level. With the growth of insurgencies, as well as a rise in insurgencies who use CRSV, it is vital to understand the structural reasons for the problem. Previous studies that focus on the use of CRSV by insurgencies mostly focus on individual motivations as well as social dynamics in order to explain and analyse CRSV. However, often these explanations can only explain part of the variation in frequency of perpetrated CRSV. Additionally, these explanations have been proven incorrect by looking at reality. Therefore, with the rise of insurgencies who perpetrate CRSV, it is critical to grasp the systemic causes that are at the base of the problem. This holds significance as it adds to the existing body of research on the structural causes of CRSV and aids in comprehending the fundament underlying facts. This understanding enables the development of more effective strategies to combat CRSV. Through the comparative analysis of conflict characterised by varying levels of CRSV severity, the aim is to identify novel structural causes that cause insurgencies to commit CRSV.

The research into the structural causes of CRSV is limited and existing theories mostly focus on individual motivations and group dynamics and do not sufficiently explain the variation in frequency of CRSV. It is important to create a better understanding of the structural causes CRSV is rooted in. Structural causes enable us to look at more static causes, which results in more generalisable causes of CRSV. Additionally, identifying structural causes uncovers underlying dynamics that drive CRSV. By comprehending these underlying dynamics, policymakers and other experts involved in this field are better equipped to develop more appropriate policies targeting the prevention and response to CRSV.

The structural causes included in this master thesis can be divided into four main arguments. The first argument relies on the relation between territorial control and CRSV. Territorial control is fundamental for an insurgent group to establish a rebel governance system to manage relations with civilians living in the territory under their control (Stewart & Liou, 2017). Insurgencies who do not control territory have to rely on violent coercive methods to recruit civilians into their group. Commanding officers often use rape and gang-rape to create social cohesion, in order to integrate these recruits into the group (Allision, 2004). Therefore, insurgencies who do not control territory are associated with a greater likelihood of CRSV.

Secondly, insurgencies who use extortion to access natural resources are more prone to CRSV than insurgencies who use smuggling. These arguments rely on the dependence of the relationship between insurgencies and civilians (Ross, 1999; Wood, 2006; Whitaker et al., 2019; Sarkar & Sarkar, 2016). Insurgencies who smuggle are more reliant on the co-conspirators than insurgencies who use extortion. Groups who do not directly rely on civilians to smuggle natural resources are therefore more willing to risk alienating them by engaging in CRSV (Whitaker et al, 2019; Cohen, 2013).

Finally, a correlation exists between mass killing and CRSV, with genocides being associated with elevated levels of sexual violence. Examining historical instances such as the Armenian genocide, the Holocaust and the Rwandan genocide, one can observe a significant increase in the occurrence of CRSV (Mullins, 2009). Sharlach (2000) argues that even if the victims are not killed, CRSV fits the definition of genocide within the Convention on the Prevention and Punishment of the Crime of Genocide (1948). The definition includes "causing serious bodily or mental harm to members of the group and/or deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part". Therefore, CRSV should be more likely committed by actors who perpetrate genocide (Sharlach, 2000).

1.1 Structure

Binary logistic regression analysis is used to better understand these structural causes. This method predicts the increase in likelihood of insurgencies perpetrating CRSV when one of the four structural causes is present. The dataset used in order to analyse CRSV is the Sexual Violence in Armed Conflict (SVAC) dataset. This dataset spans the period from 1989 to 2019 and contains a level of magnitude of CRSV for each conflict over this 31-year time period. In order to analyse the relationship between CRSV and the four structural causes this thesis has combined variables from different datasets. Since not all datasets span the same time period the overall period covered in the analysis is 1999 to 2012. Lastly, as there is not much known about the structural causes of CRSV, the theory outlined in chapter two is based on multiple existing theoretical frameworks.

This master thesis will be structured as follows; it will start with a theoretical framework. This chapter will explain the theories on which the research is based. These theories will serve as the foundation for formulating four hypotheses and one research question. The following chapter will focus on defining and operationalising all relevant concepts for this study. Chapter four will consist of the analysis, involving the examination and discussion of the collected data. Lastly, chapter five will encompass the discussion and conclusion, providing a comprehensive overview of the findings.

2. Theoretical Framework

In the literature there is no consensus on the definition of CRSV. Most of the existing definitions tend to vary among two dimensions: what types of violence should be included and what types of violence should be regarded as conflict related. Most existing definitions of CRSV include rape and consider sexual violence to include a wide range of violations (Nordas & Cohen, 2021). For example, Wood (2006) states that sexual violence is a broad category that includes rape, coerced undressing, and non-penetrating sexual assault. However other scholars such as Hynes et al. (2004) also include non-violent forms such as psychological violence (including threats of violence, coercion and arbitrary deprivation of liberty), humiliation and improper sexual comments in their definition of CRSV. Wood (2014) limits "conflict related" to violations perpetrated by armed organisations (including state actors and non-state actors) during a period of conflict. This means she excludes violations by civilian actors, for example sexual violence or sexual crimes committed by intimate partners. These academic definitions contrast with definitions frequently used by policy and advocacy communities. The United Nations (UN) includes all sexual violence connected to a conflict, whether directly or indirectly, including sexual violence connected to an environment where offenders are treated with impunity. It is however striking that the UN excludes sexual exploitation and abuse by peacekeepers within its definition of CRSV (United Nations, 2019).

Although the UN's definition acknowledges the many forms of sexual violence which are related to conflict, this could be considered difficult to operationalise in academic work. However, restricting "conflict related" to only include "done by soldiers in time of war", does not encompass all sexual violence that is the result of conflict (United Nations, 2019). While it should go without saying that rape by armed soldiers during times of war should be included in the definition of sexual violence, there are many settings in which this classification is less straightforward. For instance, a rebel fighter who rapes his wife or a former soldier who sexually assaults his or her neighbour after the conflict officially ended are not included in the academic definition of conflict related sexual violence (Nordas & Cohen, 2021). Regarding this master thesis and most other recent quantitative research, this thesis relies on the definition provided by the Sexual Violence in Armed Conflict (SVAC) data set. This definition includes direct force or physical violence and/or the threat of force or coercion and covers seven distinct forms of violence (1) rape, (2) sexual slavery, (3) forced prostitution, (4) forced pregnancy, (5) forced sterilisation/abortion, (6) sexual mutilation and (7) sexual torture (Cohen & Nordas, 2014).

2.1 Classical theories

Since the turn of the century, researchers have advanced significantly in their understanding of conflict related sexual violence. The topic is increasingly studied by a wide range of scholars using different epistemologies, methodologies, data types and sources. We now know a great deal more about how sexual violence differs between conflicts and armed groups, as well as a great deal more about why sexual violence occurs (Nordas & Cohen, 2021; Wood, 2014). Perhaps the most important finding is that sexual violence during conflict varies across armed conflict. Many organisations engage in widespread sexual violence but not all organisations do so (Wood, 2014). According to research done by the Congressional Research Service (2015) on sexual violence in African conflicts 59% of 177 armed actors in civil wars between 2000 and 2009 were not reported to have engaged in rape or other forms of sexual violence. Looking at these numbers we have to keep in mind that conflict related sexual violence is severely under-reported, however it does show that in some conflict settings the frequency of sexual violence committed by armed actors is significantly less than in other conflicts (Wood, 2014). Furthermore, Wood (2006) concludes that the existing literature on CRSV does not explain the puzzling variation in the extent and form of sexual violence in conflict. Sexual violence varies in prevalence and form across civil wars, inter-state wars, and across ethnic wars as well as non-ethnic and secessionist conflict. This variation has not been adequately explained by existing literature. Why is CRSV common in some conflicts and mostly absent in others? Most literature focuses on single cases rather than comparison across cases, additionally it focuses either on individual incentives or on broad assertions of the strategic value of CRSV and primarily use qualitative research methods (Wood, 2006; Wood, 2014; Nordas & Cohen; 2021; Koos, 2017). This thesis will try to explain the puzzling difference in frequency of CRSV across different conflicts.

The existing classic theories try to explain the difference in frequency in CRSV, however in reality they explain only a small part of the observed variation. The reason for this is that these theories over-predict rape during war and therefore do not account for its variation or absence of CRSV. The classic theories can be distinguished into three separate approaches: continuum approach, gratification/opportunity approach and the instrumental/strategic approach.

2.1.1. Continuum approach

The continuum approach is based on the feminist assumption that the pre-war status of women in society is predictive of CRSV (Nordas & Cohen, 2021). The same gender dynamics that fuel sexual violence in time of peace fuel it in times of war, therefore patterns of sexual violence in times of peace and conflict change in degree but not in form (Wood, 2014). Feminist scholars argue that violence is not a stand-alone act, but a manifestation of gendered power relations and structural inequality. They blur the line between the private and public sphere (Väyrynen et al., 2021). Cockburn (2010) emphasises that there is a link between the private and public scale of violence that exist both in peace and wartime. She goes as far to challenge the relevance of discussing sexual violence specifically in the context of war and peace, as women consistently remain vulnerable to acts of sexual and gender-based violence (Kreft, 2020). For example, a high number of Iraqi women were victims of sexual and gender-based violence before, during and after the invasion (Väyrynen et al., 2021). Violence as a process is rooted in social interaction, based on existing hierarchies of relations that spill-over during wartimes. According to feminist scholars these hierarchies are predicted through gendered and patriarchal systems and it is these systems that relegate women to the private sphere and identify the public sphere as a masculine space (Väyrynen et al., 2021; Kreft, 2020). Continuum scholars try to emphasize that we cannot understand sexual violence during, before and after conflict as separate phenomena, but rather as a continuum that spills-over from peacetime~~s~~ into wartime~~s~~ into post-conflict periods. Sexual violence has to been seen in relation to gender-based discrimination, hierarchies and power relations already existing, linking for example marital rape in peace time to military rape during wartimes (Väyrynen et al., 2021; Kreft, 2020; Cockburn, 2004; Nordas & Cohen, 2021; Wood, 2014).

Although the continuum approach does explain a part of the variation of the occurrence of sexual violence during conflict, it fails to offer much analytical leverage. Although sexual violence occurs during peacetime, war and in post-conflict periods the severity and numbers of victims varies dramatically across these periods and conflicts, which the continuum approach cannot explain (Nordas & Cohen, 2021). Sexual and gender-based violence in the context of war are more brutal, more frequent and more organised than during peacetime (Wood, 2014; Cohen, 2016). Furthermore, research done by Cohen (2013) found no correlation between the existence of patriarchal institutions and the level of CRSV. Nor does the approach account for the absence of CRSV by armed actors in patriarchal societies. Lastly, when armed organisations engage in high levels of CRSV, a high fraction of rapes are carried out by multiple perpetrators. This is a sharp contrast from peacetime in which most sexual violence is perpetrated by one aggressor (Wood, 2014). To what extent can we then speak of a continuum?

2.1.2. Gratification/opportunity approach

The second approach is the gratification or the opportunity approach. The opportunity/gratification approach is one of the oldest approaches regarding CRSV and has therefore developed overtime. The first scholars argued that given the opportunity all men will rape for sexual gratification (Wood, 2006). Evolutionary psychologists Randy Thornhill and Craig Palmer (2000) argued that men inherit a genetically transmitted propensity for rape. This particular behaviour was selected for because it offered men with low reproductive success a higher likelihood of reproducing if they engaged in the act of raping vulnerable females, as opposed to refraining from such actions. However, there are several doubts to this claim. If the underlying assumption for men is to rape women for reproductive success, it does not explain the raping of girls under the reproductive age and elderly women over the reproductive age. Neither does it account for the excessive use of violence during rape and gang rapes (Wood, 2006).

Other scholars focus more on the gratification aspect of the opportunity/gratification approach, arguing that when soldiers do not have access to consensual or transactional sex, it is more likely they will perpetrate CRSV (Haer, et al., 2015; Wood, 2014). This explanation is based upon the essentialist assumption that sexual release is a natural need for men, which is exacerbated by the stress of a conflict situation (Schulz & Touquet, 2020). Haer et al. (2015) argue that men's sexuality is a driving force, which when released in a situation of war easily results in rape and other forms of sexual violence. The foundation of this sexual urge in situations of conflict comes in different guises, some scholars see all men as potential rapists because of their biological make-up while others argue that men lose their self-control in the face of women's sexual provocation (Haer et al., 2015; Wood, 2006; Nordas & Cohen, 2021; Baaz & Stern, 2009). However, as this approach only focuses on the sexuality of men, it implies that female combatants cannot and do not perpetrate CRSV. Although in reality this assumption does not seem to hold, as women are also perpetrators of CRSV (Schulz & Touquet, 2020; Cohen et al., 2013). Additionally, the assumption that CRSV is a result of the lack of self-control indicates that CRSV is a spontaneous act inflicted upon an unknown victim (Haer et al., 2015). Research done by Vogelman (1990) contradicts this assumption, arguing that 50 percent of instances of CRSV take place in the victim's own home. Moreover, one-third of the time the perpetrator is known by the victim.

Closely related to this idea of gratification is that CRSV might be explained by the combination of opportunity and a lack of sanctioning (Haer et al., 2015). War tends to be fought by armed young men in groups outside the regular social norms of their village or neighbourhoods. In these conditions, sexual aggression is less controlled (costs are lower), which leads to increased rates of sexual violence. If communities are not relocated collectively, social controls may be weaker among displaced populations (Wood, 2006; Haer et al., 2015). The absence of social controls means that sexual aggression is less regulated, which results in higher levels of CRSV. Additionally, research by Wood (2006) shows that when combatants are subjected to tighter control they are less likely to commit CRSV. However, looking at armed factions, many of these groups refrain from using CRSV even when they are presented with the opportunity. Furthermore, because we understand CRSV as opportunistic, this approach cannot explain the organised, systemic and legitimised use of rape by armed forces in many modern societies (Haer et al., 2015).

As shown by this analysis of the opportunity/gratification approach, this approach is very limited in explaining the variance of CRSV across conflicts. The argument made is in itself very problematic as it often assumes that men are rapists by nature. This focus on men as perpetrators of CRSV excludes the possibility of female perpetrators. This approach is therefore solemnly based on a binary gender division, excluding a lot of the variance of CRSV between conflicts. Lastly, because this approach assumes CRSV is opportunistic in nature, it cannot account for organised and systematic use of CRSV. Therefore, the opportunistic/gratification approach is not sufficient in explaining why CRSV is frequently used in one conflict and less widespread in other conflicts as it can only explain part of the variation (Wood, 2006; Schulz & Touquet, 2020; Haer et al., 2015; Wood; 2014; Nordas & Cohen, 2021).

2.1.3. Instrumental/strategic approach

The third and last approach focuses on the instrumental or strategic use of CRSV. According to this approach sexual violence can be understood as a systematic weapon of war, which can be deliberate deployed strategically against civilians (Schulz & Touquet, 2020). Strategic or instrumental use of sexual violence differs from opportunistic sexual violence, in that it is “directed” by commanders and frequently paired with other types of torture (Traunmüller et al., 2019). Opportunistic CRSV is perpetrated for private reasons, for instance gratification or personal revenge, in contrast to the pursuit of group objectives which is the aim of instrumental/strategic use (Cohen et al., 2013). Instrumental/strategic sexual violence is promoted or tolerated by leaders of some armed groups as an effective means towards their goals. It may serve as a reward for participation, a small-unit solidarity promoting bonding of its members or be seen as a form of terror or punishment (Wood, 2006). CRSV can be used during conflict instrumentally as well as a socialisation tool. It creates bonds of loyalty and esteem for initial circumstances of fear and mistrust. Additionally, there are psychological benefits for the perpetrators as it improves group morale through inducing the feeling of power and victory. The use of sexual violence as means to increase bonding of members also reinforces the militaristic masculinity rhetoric which is often employed by leaders. Arguing that to become men, boys must become warriors (Haer et al., 2015). Research by Oosterhoff, Zwanikken en Ketting (2004) shows that CRSV is never used exclusively, but always among other methods of violence, for example beatings, deprivation of food and sleep etc (Traunmüller et al., 2019).

However, if the assumption that CRSV is never used exclusively, but always among other methods is correct, this approach cannot account for the many armed actors that engage in other forms of violence but do not engage in CRSV (Wood, 2006; Wood, 2014). For instance, the secessionist insurgent group, the Liberation Tiger of Tamil Eelam (LTTE), are recorded to have perpetrated very little CRSV, despite the many civilian casualties they left behind during their reprisal attack on non-Tamil villages, assassinations of political and military leaders and bombings of transportation facilities (Cohen et al., 2013). Additionally, assuming that violence and CRSV go hand in hand this will result in overprediction of the already tragic amount of observed instances of CRSV (Wood, 2006; Wood, 2014).

Furthermore, this approach has to deal with the principal-agent problem. The principal-agent problem refers to an inherent conflict of interest involving a principal and an agent who operates on the principal's behalf but may have different objectives. This mismatch may cause the agent to put their personal interests ahead of that of the principal, which might increase agency fees and lower performance overall. Traunmüller, Kijewski and Freitag (2019) argue in their research that CRSV might be a reflection of a breakdown of chain of command and discipline rather than orders by commanders. They state that sexual violence is simply tolerated by commanders and should therefore be considered as a practice rather than a strategy. As it could be a way to compensate for the lack of financial or other benefits. As a result, the use of CRSV is mostly motivated by personal incentives rather than 'ordered' by commanders. Moreover, this raises the questions whenever sexual violence as a strategy originated from the top or at some lower level or whether insurgent organisations have the command and control structure sufficient to enforce strategy of CRSV if promoted by top leaders. As already mentioned the goals may diverge widely between leaders of an armed organisation and individual members. This could result in a potential gap between measures indicated from the top and priorities among small units and individuals on the ground (Wood, 2006; Wood; 2014; Haer et al., 2015; Cohen et al., 2013; Koos, 2017).

Concluding, the instrumental/strategic approach does explain part of the variance of the frequency of sexual violence across different conflict. However, it cannot explain all the variance, as it cannot account for the instances in which armed groups do perpetrate violent attacks but do not engage in CRSV. As a result the approach overestimates the use of CRSV. Moreover, there is room for questioning whether strategic or instrument sexual violence is truly commanded at higher levels or driven by individuals within smaller units, as the perspective encounters challenges related to the agent-principal problem.

2.2. Structural causes

Examining the classic theories reveals their limited ability to explain only a portion of the variation in the frequency of CRSV observed in different conflicts. Additionally, these theories tend to assert claims that lead to an overestimation of the prevalence of CRSV. They often cannot explain the absence of CRSV in conflict. The theories make claims that have been proven incorrect by looking at reality. Consequently, it can be argued that these classic theories do not provide adequate explanations for the all the variation across conflicts. It is however important to examine positive as well as negative cases, in which sexual violence was not reported or is known to be limited. By shifting the focus away from well-known and extensively documented instances of mass sexual violence, a move towards universal and generalisable explanations for CRSV becomes possible. This shift entails examining the structural causes of CRSV. Furthermore, feminist scholars (Väyrynen et al., 2021; Kreft, 2020; Cockburn, 2004) often criticise that by connecting sexual violence to conflict we start to see it as a separate concept, which occurs from causes within the conflict. This eliminates finding causes that pre-exist the conflict. Although section 2.1.1 argues that looking only at pre-existing patriarchy is a too narrow explanation for CRSV, this does not mean that other structural causes pre-existing the conflict cannot explain the presence or absence of CRSV.

Structural causes are defined as a distinct type of extrinsic causes, which are stable, interconnected societal forces that systematically advantage or disadvantage social groups (Amemiya et al., 2022). Relating to violence they refer to broader political, social, environmental and economic causes and institutions at national or international level, which either increase or decrease an individual's likelihood of experiencing violence, abuse or exploitation during conflict (International Organisation for Migration, 2020). Existing research relating to conflict and violence often fails to provide specific triggers leading to large-scale violence. They often focus on a broad range of conditions that make the occurrence of conflict and violence more likely (Gibler, 2017). For instance, significant research in the field of civil wars done by Fearon and Laitin (2019), includes factors such as low levels of economic development, low state capacity, weak or absent democratic political institutions and the presence of mountainous terrain. Despite the association of factors like low economic development and mountainous terrain with conflict, there remains significant variation in the actual occurrence of conflict. Many poor countries do not experience conflict, while in contrast other countries do. Additionally, the severity of violence used also varies significantly across countries (Gibler, 2017).

This problem also holds for the classic theories explaining CRSV. They give indicators of when conflicts fall in terms of relative risks of widespread CRSV, however cannot account for the actual onset of escalation of CRSV or the absence of CRSV. The advantage of looking at structural causes is that they are static, meaning they change slowly. This limits the ability of them being manipulated by foreign or domestic policies (Gibler, 2017). The problem with only looking at conditions, as mentioned above, according to Gibler (2017) is they can serve as proxies for multiple theoretical mechanisms and concepts. This makes it difficult to specifically assess the causes of violence. Using structural causes, this problem is prevented from happening and can create more generalisable causes of CRSV.

2.2.1. Territorial control

Territory comes with the implication of the legal concept of sovereignty, meaning there is one supreme authority in a single political unit. This territorial framework provides the basic elements of a state, for instance citizenship and narratives of identity (Kubota, 2011). Literature largely overlooks the importance of territorial control (Asal & Nagel, 2021). Wars and conflicts are often a process of competition over sovereignty. Sovereignty is divided into certain areas, meaning in a situation of war or conflict the included parties claim control over the same territory (Kalyvas, 2012). Territorial control is one of the most important military resources an insurgent group can acquire. Controlling territory leads to a number of military benefits. For instance, rebels have a space to train and hide. They can propagandise to attract recruits and support and stockpile their financial resources and weapons or attempt to cultivate foreign backers (Stewart & Liou, 2017). Even though physical domain permits and facilitates collective armed action against the state, in itself it may not necessarily have fundamental tactical worth (Weidmann, 2009; Laitin, 2004). It does offer strategic benefits and affects how insurgents behave towards the local civilians (Weidmann, 2009; Kalyvas, 2012, Mampilly, 2015). Territorial control is a tremendous asset for insurgents as it enhances any group's strength and latent capacity for violence. Therefore, territorial control is essential for an insurgent victory (Stewart & Liou, 2017).

In this context the role of civilians is crucial, they enable or can cause harm to insurgent organisations (Stewart & Liou, 2017; Kalyvas, 2012). Harmful actions are for example passing information to the enemy and conspiring against the insurgent organisation. The aim of the insurgent organisation is to punish defectors and deter future defection (Kalyvas, 2012). However, having citizens at their disposal could also be an advantage for insurgent organisations. Insurgents who have territory to their disposal are able to fill their ranks by conscripting locals (De La Calle & Sánchez-Cuenca, 2012). As the local population is more likely to fight in support of the rebels in environments where the state has lost authority due to the fear of repression, relocation, or even killings (Asal & Nagel, 2021; Kalyvas & Kocher, 2007). Insurgents who do not have territory at their disposal have to operate clandestinely and only occasionally interact with civilians, which hinder their ability to recruit. This often results in kidnapping and press-ganging civilians into joining an insurgent organisation (De La Calle & Sánchez-Cuenca, 2012). Lastly, when coercion does not achieve the compliance of the local population, insurgent organisations can opt to cleanse the territory of opposition (Asal & Nagel, 2021; Kalyvas & Kocher, 2007). Hence, dominating a territory is related to rebel governance through the repression of dissent via the observation of possible defectors and the rewarding of devoted followers, the extraction of resources, including recruits and abuse of local civilians (Mampilly, 2015; Lichback, 1998).

When an insurgent organisation gains control over a territory, it grants them the ability to recruit combatants forcibly or willingly. Territorial control provides them with both physical access to potential fighters and coercive power over the local civilian population (Asal & Nagel, 2021). In other words, when insurgencies control a territory they control human capital. Some local civilians voluntarily join, as they already believe in the ideology of the group, which results in a limitation of civilian abuse (Allison, 2004). Wood (2006) argues that insurgent organisations who want to govern often refrain from using violence as well as CRSV. There are two main reasons for this, firstly the local population is more likely to fight in support of the rebels in environments where the state has lost control due to the fear of repression, relocation or killings (Asal & Nagel, 2021; Kalyvas & Kocher, 2007). Secondly, when rebels seek to govern they are often dependent on civilians for support, material or otherwise (Weinstein, 2007). The willingness of the local population in combination with the need for support, material and otherwise result in insurgency refraining from using violence as well as CRSV. As perpetrating CRSV will worsen the relationship with the local population and with it the access to support, material and otherwise needed to govern a territory (Asal & Nagel, 2021; Kalyvas & Kocher, 2007; Weinstein, 2007). Insurgent organisations who control a territory will therefore be less likely to perpetrate CRSV.

Insurgencies who do not control territory rely heavily on coercive methods to recruit civilians, which may include social or psychological pressure as well as violent abductions, as they have no direct access to human capital (Allison, 2004). The use of coercive measures by insurgent organisations is a well-known phenomenon. Although the assumption that coercion is a cheap method of recruiting is wrong. The violent nature of forced recruitment creates fear and distrust among those recruited. Civilians who are violently recruited into a group are less likely to commit to the group and more likely to abandon them, making them militarily less effective. This increases the monitoring costs, as members of the group have to police the recruits whenever they escape (Eck, 2014). To solve this problem commanding officers need to build social cohesion. This often results in the creation of violent socialisation processes that emerge out of the existing social group dynamic. This results in recruits learning to embrace insurgent norms by seeing, enacting, experiencing and participating in them (Cohen; 2017; Nordas & Cohen, 2021; Wood, 2014).

The perpetration of CRSV, especially gang rape, is a very efficient way to integrate recruits into the insurgent norms. The use of (group) violence is seen as a binding method for building trust in groups (Cohen, 2017). Psychological and sociological research by Franklin (2004) shows us for example that gang rape is often seen as a performance. The other perpetrators are seen as the audience, while the victim in itself does not serve as a target but rather as a vehicle for the perpetrators. It is used as a socialisation mechanism, to integrate new recruits and maintain the existing hierarchies. By taking part in these socialisation methods recruits prove themselves to their co-perpetrators, which creates bonds and creates respect. Additionally, perpetrating CRSV changes their position from being a victim of forced recruitment into perpetrator of CRSV. As a result, they are often viewed as criminals in the eyes of the local and international community. This closes the opportunity to return to their home communities, reducing the risk of defection (Cohen, 2017; Eck, 2014). Insurgent groups who do not control territory are therefore more likely to commit CRSV, as they have to rely on coercive methods to recruit civilians.

In summary, territorial control makes the occurrence of CRSV less likely, as insurgent organisations are dependent on the local population and the local population is more likely to voluntarily join the organisation. The lack of territorial control by insurgencies makes CRSV more likely, as rebels heavily rely on coercive power to forcefully recruit civilians into their group. Consequently, this leads to low cohesiveness, which results in recruits being more prone to perpetrate CRSV as means to build relationships with one another. Hence, territorial control enables both forced recruitment and subsequently CRSV. This brings us to the following hypotheses:

H1: Insurgencies who do not control a territory are more likely to commit CRSV

H2: Insurgencies who do control a territory are less likely to commit CRSV

2.2.2. Access to Natural Resources

There has been an abundance of research on the relation between political regimes and the access to natural resources and how this affects the state-citizenship relation, specifically the resource curse. Collier and Hoeffler (1998) argue that resource endowed countries have an increased chance of experiencing civil war and domestic conflict. Especially countries who have access to oil and mineral wealth. Therefore, they conclude that the access to an abundance of natural resources is a curse rather than a blessing for a country (Sarkar & Sarkar, 2017). Over the last decade scholars built upon this concept and the state building framework to analyse the actions of insurgent organisations in relation to civilian communities. Additionally, scholars tried to understand the impact of resource availability to insurgent groups on their strategies in relation to the local population (Sarkar & Sarkar, 2017; Whitaker et al., 2019; Weinstein, 2005). For example Weinstein (2005 & 2007) argued that insurgent groups who offer material resources to fighters attract wealth-seeking militants, while resource-poor groups attract more idealistic members. The composition and resources of each group determine the kind of interaction insurgent groups will have with civilians. Poorer groups will refrain from using violence against civilians as they are dependent on them. As the absence of resources makes it harder to recruit fighters. However, the individuals that they do recruit tend to be more committed to the groups as they commit to them by accepting promises rather than payoffs. As a result, wealth-seeking militants are kept out. In contrast, resource-rich groups that do not depend on civilians to access natural resources have the latitude to perpetrate indiscriminate violence against them. Additionally, wealth-seeking militants tend to be more unwilling to invest time, energy and resources into a group making them less disciplined and more likely to act violently towards civilians (Sarkar & Sarkar, 2017; Weinstein, 2005, 2007).

Other scholars (Van der Ploeg, 2011; Sarkar & Sarkar, 2017; Cohen, 2013) created the rebel resource curse. Although the concept of the rebel resource curse is consistent with the argument of Weinstein, that resources can predict violent or non-violent relations between insurgent groups and civilians, the mechanism that causes these relationships is different. Weinstein assumes that the sources of the violence relations in the end lies with individual motives and propensities. The rebel resource curse attributes the violence relations to organisational-level priorities and actions (Sarkar & Sarkar, 2017; Weinstein, 2005; Weinstein, 2007). The rebel resource curse tries to link resource endowment of insurgent organisation to efforts of building popular support among the civilian population. According to this approach, resources can finance insurgencies if they meet two criteria: (1) resources must have financial value, and (2) they must be able to be exploited by the group. Both conditions have to be met to be seen as sufficient resources. If an insurgent organisation controls an area with an abundance of resources they can generate income from exploiting and selling these resources to high-income economies. If the aim of the organisation is to seize national-level power through an armed struggle, military capacity is necessary. These resource-rich organisation can afford this military capacity, as they have access to resource wealth (Sarkar & Sarkar, 2017; Van der Ploeg, 2011). Therefore, insurgent organisations can fund military projects through their access to resources, making them independent from civilians and therefore more likely to perpetrate violence against them (Hoover Green, 2016). In contrast resource-poor organisations are dependent on the local population in order to secure resources. Therefore, the organisations have to align with local needs, making them less prone to perpetrate violence against the local population (Sarkar & Sarkar; 2017; Van der Ploeg 2011).

As this prior research shows, resource-rich insurgent groups are more prone to use violence against the local population. However, resource curse scholars focus on the general use of violence and do not look into the use of CRSV. Research by Wood (2006) shows us that insurgent organisation who want to govern often refrain from using sexual violence. This suggests that insurgencies who are resource-poor are more dependent on the local population and less prone to perpetrate CRSV. This research however does not make direct connections to the presence of natural resources. One of the only scholar who does make this connection is Cohen (2013) she argues that rape by insurgent groups is more likely in conflict where insurgent groups rely on material resources. Nevertheless, her assumption does not account for the cases in which rebel groups are resource-rich, but do not engage in CRSV, for instance during conflicts in Botswana, Chile and Malaysia (Stevens et al., 2014). Therefore it is not solely the presence of resources that increase the probability of CRSV, but rather the way in which groups exploit these resources that impact the likelihood of CRSV.

When insurgent organisations engage in extortion to access natural resources they use violence or the threat of violence against producers of these valuable resources (Lotspeich, 1997). Insurgent groups who engage in extortion often demand a share of the income generated from natural resources in exchange for refraining from the use of violence against the producers. Alternatively, extortion can also take the form of taking the facility by force and overseeing production. Extortion is most effective against point-resources, which are resources such as minerals or drugs that are concentrated in specific geographic areas, as producers have little opportunity to exit the coercive relationship. (Conrad et al., 2019). As a result, insurgent organisations who engage in extortion have to offer little benefits to producers or the broader population. Additionally, they do not need to worry about sexual violence perpetrated by their soldiers because the abuse does not threaten their access to natural resources. These assumptions therefore increase the likelihood that insurgent organisations who engage in extortion are more likely to commit CRSV.

In contrast, when insurgent groups have to use smuggling as a way to access natural resources, they are more dependent on the population. Smuggling often involves the transport of resources over a wider range of territories, for instance across countries and international borders, which are not under the control of the rebel group. Successful resource smuggling requires a great level of energy, discretion and luck (Conrad et al., 2019). Therefore, threats of violence against these smugglers are less effective as collaborators have greater agency to exit the relationship. If collaborators withdraw from these activities, this might disrupt the entire chain and thereby the access to natural resources for the insurgent organisation. Additionally, collaborators are in a position to provide the authorities with information about the smuggle operation of the insurgent organisation (Berman et al., 2011). This results in a powerful restraint to perpetrate violence against these collaborators. Insurgent organisation utilising smuggling methods to access natural resources are less likely to engage in CRSV, as such actions jeopardise profitable smuggling routes and tactics (Conrad et al., 2019). Hence, it is anticipated that insurgencies relying on smuggling to access resources are less likely to perpetrate CRSV.

H3: Insurgencies who use extortion to access natural resources are more likely to perpetrate CRSV

H4: Insurgencies who use smuggling to access natural resources are less likely to perpetrate CRSV

2.2.3. Genocide

According to research by Staub (2012 & 2013) difficult life conditions are an important cause of genocide. Difficult life conditions are a major political disorganisation within a society and have an intense psychological impact on people. When individuals face difficult life conditions they tend to turn to groups for identity, security and belonging. These groups often try to elevate themselves by devaluing other groups, which over time evolves into acting to diminish others. They scapegoat other groups in order to protect their self-image or identity and maintain their understanding of the world. A world in which they are faced with helplessness created by the intense life problems. As a result they create ideologies that offer hope and a vision of better life, however these ideologies are often destructive in that they identify enemies who must be dealt with in order to fulfil the ideology. The combination of scapegoating and destructive ideologies turns the groups against each other. Which according to Staub (2012, 2013) becomes a starting point for an evolution that can lead to mass violence.

The use of CRSV as a tool in a genocidal event has been examined very little, most research done only focuses on the individual motivation as well as the group dynamics. Although, when examining recent genocides, for instance in Armenia, Rwanda and former Yugoslavia, one can observe the use of widespread sexual violence as strategic tool in the larger endeavour to eradicate particular groups of individuals. According to Mullins (2019) genocide produces high levels of sexual violence (Herxog, 2008). For example in the former Republic of Yugoslavia, there are multiple accounts of Serbian troops perpetrating CRSV as they moved through Croat and Muslim towns and villages. Additionally, they created detention centres in which women of all ages were gang raped as well as raped until they became pregnant. These pregnant women were often held in these camps until they were too far along for an abortion. Another example are the reports of HIV positive men in Rwanda that purposefully raped women to transmit the disease, here HIV is employed as a strategic tool to reduce the numbers of a specific group. From these examples Mullins (2019) argued that this went beyond the individualistic scenario of men satisfying their immediate sexual desire in a forceful demonstration of hypermasculinity. When CRSV is used as a tool of terror and population elimination, he categorised it as genocidal rape. Genocidal rape is a systematic organised military tactic of terror and genocide. It is used to spread fear among the population, humiliate the population (including men and women), derogate women and create ethnic mixed children to maintain the humiliation, spoilage and domination. The aim of CRSV in the context of a genocide is to destroy families and group solidarity, to undermine military moral by inflicting trauma, humiliation and fear, to block procreation of the groups and to impregnate women in order to affect the ethnic composition of populations (Herzog, 2008). For instance, the wide-spread raping results in the birth of ethnic mixed children. These children become lasting symbols of degradation, especially in societies that determine lineage through the paternal line, offering an opportunity to eliminate a particular population (Mullins, 2009) .

Although Mullins (2009) shows that there is a link between CRSV and genocide, his research focusses on the state and not on insurgent organisations. However, using the same reasoning as Staub, members of insurgent groups can also be the victim of difficult life conditions and as a result, develop destructive ideologies that are the starting point for genocidal violence. Genocide does not require state involvement to be categorised as genocide by the ICC (Altunjan, 2021; Rodenhäuser, 2018). Therefore, the act of genocide can be perpetrated by a state as well as by a non-state actor. For instance, the ICC ruled that the genocide in Srebrenica was committed by *Repulika Srpska*, which neither is a state nor acting under a state's effective control. Additionally, an insurgent organisation Anti-Balaka, an armed group in the Central African Republic, and the Islamic State have been charged with the crime of genocide by the ICC (Rodenhäuser, 2018). This shows that it is not only states who use genocide as a practice but also insurgent organisations. Research by Kehinde (2019) shows that insurgencies are prone to copy behaviour of other insurgencies and states. Hence, it is reasonable to assume that these insurgencies observe the behaviour of other groups and states engaging in genocide, imitating their actions, including the use of CRSV as tool to commit genocide.

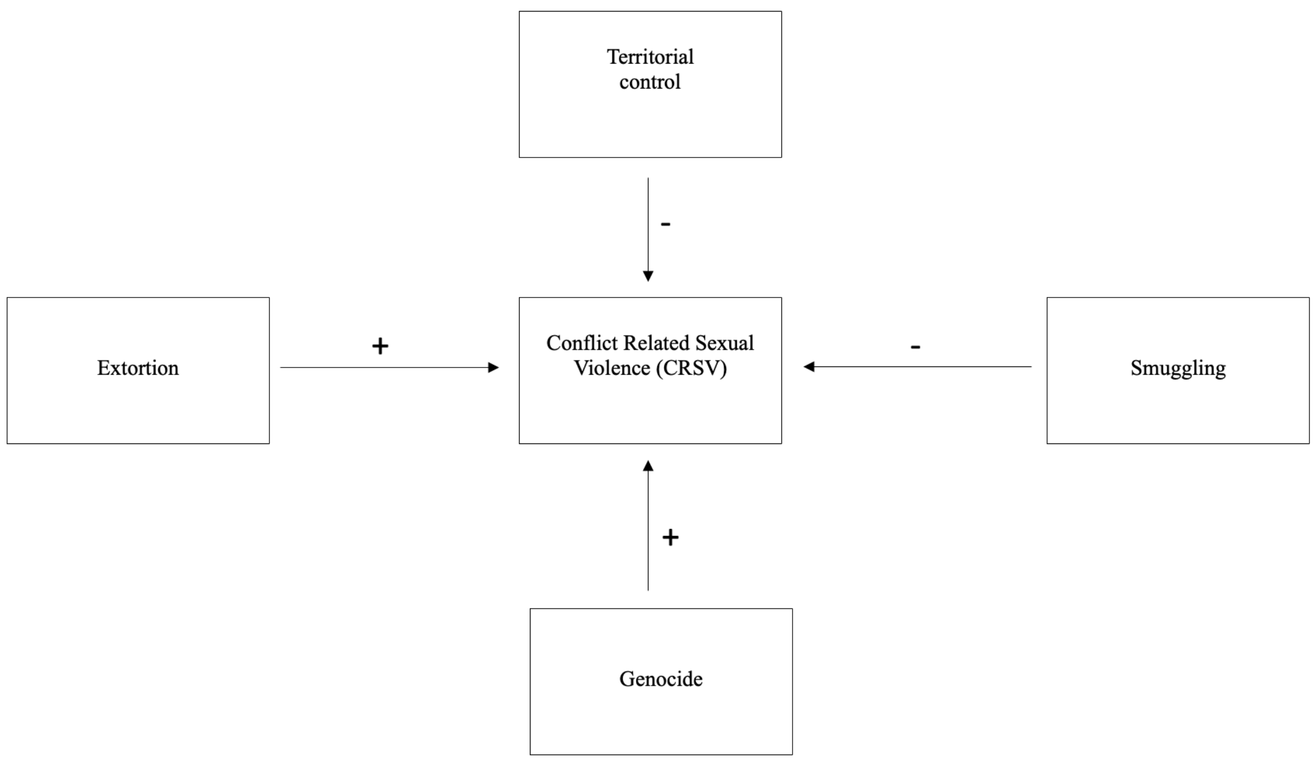
Therefore, it is anticipated that insurgencies perpetrating genocide are more prone to engaging in CRSV.

H5: Insurgencies who commit genocide are more likely to commit CRSV

2.3. Conceptual model

The conceptual model (figure one) displays the hypotheses formulated in the preceding sections. These hypotheses suggest that a combination of different underlying factors affects the probability of insurgencies engaging in CRSV (H1, H2, H3, and H4). In the model, a plus sign represents the anticipated positive impact of the independent variable on the dependent variable, while a minus sign indicates an expected negative effect.

Figure 1: Conceptual model



3. Methodology

As concluded from the previous chapter the existing literature does not explain the puzzling variation of the use of CRSV. The aim of this study is to explain this variation by looking at structural causes. This thesis distinguishes four different structural causes, territorial control, access to natural resources through extortion, access to natural resources through smuggling and genocide, that might explain this variation. Additionally, five different hypotheses are formulated to test the overall research questions. This chapter will discuss the data and measurement of each variable. The chapter starts with defining CRSV and assessing the quality of the utilised dataset. Following that, the variables of territorial control, extortion, smuggling and genocide will be defined and examined. Furthermore, the measurement and data quality of the dataset pertaining to these variables will be discussed. Finally, the research methodology employed to address the research question will be discussed.

3.1 Operationalisation of the variables

This thesis will analyse the relation between four different structural causes and CRSV. An overview of the variables and their operationalisation can be found in appendix one.

3.1.1. Conflict Related Sexual Violence (CRSV)

The dependent variable is conflict related sexual violence (CRSV). To obtain the data pertaining to CRSV, the study relies on the updated version (3.0) of the Sexual Violence in armed Conflict (SVAC) dataset. The definition of CRSV used in the data set includes direct force or physical violence and/or the threat of force or coercion and covers seven distinct forms of violence: (1) rape, (2) sexual slavery, (3) forced prostitution, (4) forced pregnancy, (5) forced sterilisation/abortion, (6) sexual mutilation and (7) sexual torture (Cohen & Nordas, 2014). The updated SVAC dataset includes government forces, pro-government militias and rebels and rebel groups between 1989 - 2019 (Cohen, Nordås, Nagel, 2021).

The SVAC is based on the Uppsala Conflict Data Program (UCDP) dataset. Based upon this dataset, the SVAC data set includes data on all active conflict years and the first five inactive years following an active conflict (Asal & Nagel, 2021). An active year of conflict is defined by 25 battle deaths or more per year. All actors listed in the SVAC 3.0 dataset are involved in state-based conflict, as defined by the UCDP/PRIO Armed Conflict Database. The dataset does not include violence that is not part of a conflict with a government. Therefore, CRSV perpetrated by peacekeepers and civilians is not included (Cohen, Nordas, Nagel, 2021). Additionally, Cohen, Nordas and Nagel used a conservative coding protocol, meaning that the source must identify the armed group by name and at least the year of the reported violence. When a report could not identify the armed group and the year, the report was not seen as sufficient and not included in the dataset (Cohen & Nordas, 2014). As a result the dataset consists of data of a 31-year period which includes 184 conflicts in 86 countries. Making the unit of observation the conflict-actor-year, meaning a particular conflict actor in a given calendar-year (Cohen, Nordas, Nagel, 2021).

The data most important for this research is the prevalence or magnitude of sexual violence committed by insurgent organisations, as this thesis is interested in explaining varying amounts of committed CRSV across conflicts. The dataset uses an ordinal measurement level, reaching from zero to three, to measure the prevalence of magnitude. The level of prevalence is determined on the bases of three sources: State Department reports (SD), Amnesty International reports (AI) and Human Rights Watch (HRW) reports. When a report was issued in that specific year, but there was no mention of sexual violence, the variable is coded as zero (none). A variable coded as one (isolated) indicates some sexual violence, while if the variable was coded as two (numerous) indicated several or many incidents of sexual violence reported. Lastly, the maximum value of three (massive) indicates massive sexual violence (Asal & Nagel, 2021; Whitaker et al., 2019; Cohen & Nordas, 2014; Cohen, Nordas & Nagel, 2021). However, a variable coded a zero does not imply that there were no CRSV episodes, rather it indicates that the sources did not receive any reports of such crimes (Andersin, 2020).

In order to identify which group categorises as insurgent organisation, this thesis takes the definition of the SVAC dataset as a base line. The SVAC relies on the Uppsala Conflict Data Program (UCDP) to identify insurgent organisation. An insurgency is included in the dataset when it is an organised armed force which has committed at least 25 battle-related deaths in one year. This means that the group has to use arms which result in a minimum of 25 battle related deaths per year. An insurgency is considered organised when they consist of either a formally organised group, which are any non-govern group of people having announced a name for their group and using armed force against a similarly organised group or the state. Or informally organised groups, which are groups without an announced name, but who uses armed force against another similarly organised group and the state, where there is a clear pattern of violent incidents that are connected.

Although the SVAC is the most used dataset relating to CRSV, the dataset has a number of limitations. Despite the fact that the data was gathered from the same sources across time and that consistency in the source's data gathering technique was assumed, CRSV may not have garnered constant interest over time. For instance, after CRSV in Bosnia-Herzegovina received significant attention, human rights organisations may have intensified their focus on CRSV. So, an increase over time may be due to an increase in interest rather than an increase in occurrence itself (Cohen, 2013; Cohen & Nordas 2014). Additionally, a potential source of bias is how reports are produced. The reports may be impacted by the current political environment. Reports on human rights violations committed by allies may have been altered under political pressure to make them seem less severe. However, Cohen (2013) argues that human rights abuses even in situations when the US supported a certain side in a civil war, reflected reality. For instance, the State Department accused the government of El Salvador, to which the US committed significant financial resources to support counterinsurgency efforts of committing serious human right violations against detained suspected insurgents. These accusations included beatings, rape and the application of electric shocks.

Additionally, several scholars have raised concerns about the quality of the data and the ability to make causal claims (Boesten, 2017). Buss (2018) has stated that while it is not impossible to conduct research and collect data on CRSV, there are significant methodological limitations. For example, geographical barriers, cultural norms and stigmatisation that discourages people from coming forward and reporting CRSV might make it difficult to contact victims. Additionally, Boesten (2017) notes that the dataset does not measure the precise number of victims, rather a categorisation that is based on information gleaned from reports on an ordinal scale from zero to three. However, this dataset will still be using as it is one of the few available that covers CRSV on a conflict-level-yearly basis.

3.1.2. Territorial Control

The first independent variable of interest is territorial control. The data for this variable is obtained from the Big Allied and Dangerous (BAAD) version two dataset (Asal & Rethemeyer, 2015). The variable is used to analyse H1 and H2, answering the hypothesis whenever insurgencies who do not control a territory are more likely to commit CRSV and whenever insurgencies that control a territory are less likely to commit CRSV. Groups are included in dataset when they committed at least one terrorist attack as defined by the Global Terrorism Database (GTD) between 1998 and 2012 and/or are recorded in the Profiles of Incidents involving CBRN by Non-state Actors (POICN) dataset as having used, attempted to use or pursued a chemical, biological, radiological or nuclear weapon at least once between 1998 and 2012, and/or are recorded in the UCDP as having committed at least 25 battle deaths in an insurgency between 1998 and 2012. Information in the BAAD2 is drawn entirely from publicly available open-source materials. These include legal documents, secondary source material such as books and journals, existing datasets and electronic news archives. The BAAD2 dataset claims only to include information from these datasets unless and until they have determined the sources are credible, making the dataset reliable (Asal & Rethemeyer, 2015). The BAAD2 consists of 140 organisations yearly from 1998 to 2012 (Asal & Nagel, 2021).

The independent variable territorial control is a binary/nominal variable, meaning it is a categorical variable that can only take one of two values, for example true or false. For the variable territorial control this translates to no territorial control (0) and territorial control (1) (Asal & Nagel, 2021; Asal & Rethemeyer, 2015). Territorial control for the BAAD2 dataset means that the organisation is able to control movement into, out of, or within a given territory. Additionally, they might perform functions or provide services, similar to that of a legitimate government. Territorial control may be accomplished by threat, use of force, or if the government grants the organisation the authority to do so. The territory must be a sizable area (city, region, etc), not merely a business that operates out of one or more buildings. Hence, checkpoints and military bases are not included in the BAAD2 dataset (Asal & Rethemeyer, 2015). Furthermore, the BAAD2 dataset provides us with yearly coding rather than conflict episode coding. In measuring the yearly changes in territorial control, it enables us to capture the changes in territorial control and subsequently gives us the opportunity to analyse the effect of changing territorial control on the behaviour of an insurgent organisation (Asal & Rethemeyer, 2015; Asal & Nagel, 2021).

Although the SVAC includes data in the period from 1989 till 2019, the BAAD2 only includes data from 1998 till 2012. As a result this thesis can only test these hypotheses in the period from 1989 till 2012. By combining the BAAD2 dataset and the SVAC dataset this leaves us with 654 group-year observations.

As the dataset relies entirely on publicly available open-source materials to gather information, the coders are dependent on the differences in global awareness of insurgencies. For example, although political violence was undoubtedly a big worry before September 11th 2001, there is no denying that in the years that followed, media and scholarly attention to insurgencies increased significantly. The degree of media effort to report on violent non-state actors has fluctuated throughout time, reflecting changes in public interest. This bias might show, for instance, in the easier discovery and coding of network relationships after September 11th compared to before and in the availability of more data on small and relatively inactive organisations. Additionally, the information gathering process heavily relies on English sources. Although, the scholars that created the dataset stated they used coders that speak languages other than English and have worked with automated coding vendors that can process multiple languages. Most of the sourcing is done in English, hence there will be reliable sources in other languages that they have not consulted and could still provide new information (Asal & Rethemeyer, 2015).

Another dataset that includes territorial control as variable is the Actors in Armed Conflict Dataset (NSA) (Cunningham, et al., 2013). Even though the data provides us with information about the territorial control of insurgent organisations, it does not provide us with information on a yearly basis but rather on a conflict episode basis. This removes the opportunity to analyse the effect of changes in territorial control on the behaviour of insurgent organisations. Therefore, this thesis will use the BAAD2 dataset as it allows for a more fine-grained analysis.

3.1.3. Access to Natural Resources

The second and third independent variables says something about how insurgent organisations access natural resources and the relation to CRSV. This thesis distinguishes between two methods, extortion and smuggling. The data about exertion and smuggling is obtained from the Rebel Contraband (RC) dataset (Walsh et al., 2018). The RC dataset will help to answer the third (H3) and fourth (H4) hypotheses, whenever insurgencies who use extortion to access natural resources are more likely to perpetrate CRSV and whenever insurgencies who use smuggling to access natural resources are less likely to perpetrate CRSV. As well as with the previous two dataset, the RC dataset is based on the Uppsala Conflict Data Program (UCDP) Dyadic Dataset version 1-2013. Information on actors involved in armed conflict is included when at least 25 battle-related deaths occurred in a given year. Additionally, at least one of the actors included in the conflict must be a government. The dataset includes information from 1990 to 2012, as well as the years in which the threshold of 25 battle-related deaths was not reached but which fell between such years (Walsh et al., 2018). Making the unit of analysis of this dataset the group-year observations from 1990 to 2012 (Conrad et al., 2014). Information in the RC dataset is drawn entirely from publicly available open-source materials. This means that there is not a single source or type of source that provides information across all conflicts (Conrad et al., 2014; Walsh et al., 2018).

The natural resource variables include two aspects, first the strategy by which the armed group earns their income and the natural resources from which it earns its income. In order to address hypotheses three and four, the focus is directed towards the strategic aspect. Categorising the strategies into two approaches, namely extortion and smuggling (Walsh et al., 2018). The method of extraction is seen as extortion when a group uses violence or the threat of violence to extract natural resources for direct or indirect financial gain. For instance, the threat of rebels bombing a pipeline unless the operator of the pipeline pays them protection money or rebels kidnapping workers at a mine and releasing them in exchange for ransom payment are examples of extortion. Extortion is a continuous process, it entails actions like coercing people into extracting resources or defending unauthorised loggers from law enforcement in exchange for a cut of the earnings (Conrad et al., 2014; Walsh et al., 2018). When a group earns their funds by collaborating with or coercing individuals who unlawfully carry natural resources from the region in which they are extracted to markets farther away, this is known as smuggling (Walsh et al., 2018). Both variables, extortion and smuggling, are dichotomous variables measuring whether the rebel side of the conflict earned income in a given year by extorting or smuggling one or more of over 20 natural resources included in the dataset (Whitaker et al., 2019). Moreover, there are two variables both coded in a binary measurement level. The extortion variables show either that an actor has not engaged in extortion (0) to access natural resources, or that an actor has engaged in extortion (1) to access natural resources. Additionally, the smuggling variables show either that an actor has not engaged in smuggling (0) to access natural resources or that an actor has engaged in smuggling to access natural resources (1).

Unlike country-level or subnational statistics on natural resources, for instance the dataset of Lujala (2010), this data set does not imply that rebels operating in a resource-rich country or region necessarily profit from these resources. This has substantial advantages for testing our hypothesis. Moreover, the dataset measures temporal variation in rebels benefiting from resources, unlike data in Fearon (2004) and Rustad and Binningsbø (2012). These statistics allow us to establish not just whether, but also how rebels obtain revenue from natural resources by differentiating between extortion and smuggling (Whitaker et al., 2019).

3.1.4. Genocide

The final independent variable is derived from the Target Mass Killing (TMK) dataset, which will be utilised to address the fifth and final hypothesis, if insurgencies who perpetrate genocide are more likely to perpetrate CRSV. The dataset identifies 201 TMK episodes between 1946 and 2017 with annualised information about perpetrator intent, severity, targeted groups, and ordinal and binary indicators of genocide/politicide that can serve as alternatives to existing measures. A situation is seen as targeted mass killing when an officially constituted armed force directly kills at least 25 non-combatants during a given year with the aim of eliminating the organisation or frightening it by instilling fear that its existence is in danger. A targeted group is identified according to its political, ethnic, religious, or other affiliations (Butcher et al., 2020). Information in the TMK dataset is drawn from three separate sources, the Uppsala Conflict Data Program (UCDP), the Integrated Network for Societal Conflict Research (INSCR) and the Mass Atrocity Endings (Butcher et al., 2019). The variable is a dichotomous variable, which indicates either that the actor did not engage in targeted mass killing (0) or that the actor did engage in targeted mass killing (1). This makes the unit of observation a conflict actor in a given calendar-year.

TMK can be used interchangeably for genocide, because of the group-selective character of violence and the overlap between the targets of violence (Straus 2007, 2001). Although, TMK is similar to genocide it differs from other forms of violence. For instance, TMK is different from mass killings due to the higher requirement for evidence of intent to destroy or existentially intimidate an entire ethnic, religious, or political group. Additionally, mass killings may also include cases where the government kills civilians without necessarily aiming to destroy the whole group. It also differs from repression as the use of coercion to deter present and future collective action or dissent is not necessarily group-selective (Butcher et al., 2020). Hence, because there are no other sufficient dataset for genocide this thesis will use the TMK dataset in answering the hypothesis. Other dataset, for example the Political Instability (formerly, State Failure) Task Force (PITF) and the State-Sponsored Mass Killing (SSMK) (Ulfelder and Valentino, 2008) dataset both lack documentation for coding decisions. Additionally, the One-Sided Violence (OSV) (Eck and Hultman, 2007) dataset focusses on a broader class of violence against civilians and does not include the condition that targeted group(s) must share an ethnic, religious or political identity as in the TMK dataset.

3.1.5 Control Variables

Additionally, three control variables, which have the potential to impact the behaviour of an insurgent organisation in various ways, have been incorporated into the analysis. The first control variable concerns the level of democracy. Asal and Nagel (2021) argue that political context and the degree to which there exists a permissive environment for abuses is an important aspect shaping CRSV. When a state is autocratic it is more prone to abuses than when a state is democratic and leaders have to answer to the population. The variable democracy is drawn from the Polity IV project, and ranges from 0 to 10, with lower values indicating more autocratic governments and higher values indicating a more democratic government (Gurr, Ted R, Marshall & Jaggers; 2010). Since there is a more permissive environment for abuse in autocratic regimes, the expectation is that the occurrence of CRSV in autocratic regimes is more likely.

The second control variable is GDP per capita. Scholars argue that the GDP per capita can account for the amount and type of violence insurgencies use. When states have a low GDP per capita, they have a low state capacity. This means that the state cannot deter insurgents from attacking, meaning the conflict will be more violent and insurgent organisations will use more violent behaviour. This also means they will be more likely to engage in CRSV. States with a higher GDP per capita have more state capacity and subsequently have more capacity to suppress insurgent organisations. This means that the insurgent organisations have less opportunities to act violence, as this will be suppressed and punished by the state (Calle & Sánchez-Cuenca, 2021). The variable GDP per capita is drawn from the World Bank. The World Bank works together with banks from different countries and regions of the world to collect their data. The variable GDP per capita is transformed into log in order to compress the data and create a more manageable range, making it simpler to understand and compare. GDP per capita is a positive continuous variable, which means the higher the value the higher the GDP per capita.

The last control variable is intrastate conflict. Caprioli (2005) argues that, in general countries characterised by gender inequality are more likely to be involved in intrastate conflicts, therefore when these countries are in a conflict they are more likely to engage in gender-based violence. Additionally, the likelihood of intrastate conflict is highest when communities have a sense of identity and distinguish between their own and the other groups. The strong feeling of group identity increases the chance of severe violence and this in combination with gender inequality increases the likelihood of gender-based violence. The data for this variable is drawn from the SVAC dataset. The SVAC dataset distinguishes between three categories of conflict; interstate conflict, intrastate conflict and internationalised intrastate conflict. To create the variable intrastate conflict, the variable type of conflict has been recoded into a dichotomous categories; intrastate conflict (1) and no intrastate conflict (0).

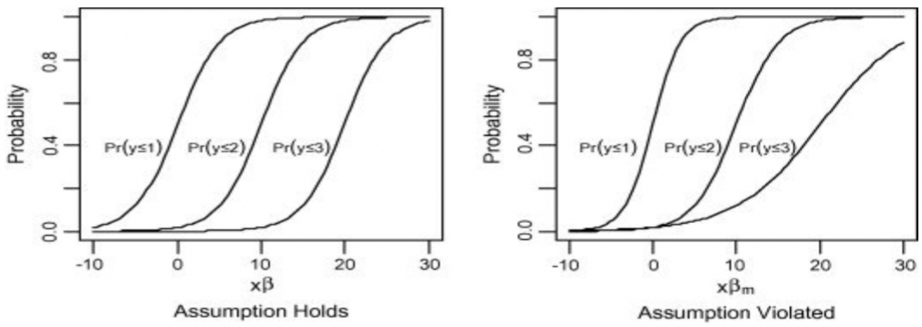
3.2 Method

To test the research question why CRSV is widely used in some conflicts and less widespread in other conflicts regression analysis is used. Regression analysis helps researchers to characterise, predict, estimate and make plausible conclusions about the connected variables. This thesis relies on SPSS for the analyses. While the SVAC dataset encompasses various actors, this study specifically concentrates on insurgent actors. Consequently, only cases involving exclusively insurgent actors are included in the analysis. To answer the research question and hypotheses, logistic regression analysis will be employed, which is a statistical model used to predict categorical outcomes based on categorical and continuous predictors. In the most basic form, this determines which of two groups a person is most likely to fall within based on the results of predictors. The aim of logistic regression analysis is to predict the probability of an event occurring for a given actor, based on observations of whether the event did occur for that actor. Therefore, the observed dependent variable will either be 0, meaning the outcome did not occur, or 1, the outcome will certainly occur.

A linear model will not be utilised due to the requirement that the relationship between predictors and the outcome must be linear. This assumption is violated when the outcome variable is categorical. Transforming the data using the logarithmic transformation is one method of resolving this issue. By using this method you can present a non-linear relationship in a linear way. With logistic regression, this thesis predict the probability of the dependent variable happening from known values of the independent variable, rather than predicting the value of the dependent variable from a predictor independent variable (Field, 2018). The hypothesis tries to answer a question of the following form, whenever the likelihood of CRSV increases when a certain predictor variable is present.

The dependent variable, CRSV, is an ordinary variable, therefore there is the option of performing an ordinary logistic regression analysis. This type of regression analysis is used to model the relationship between an ordinal response variable and one or more explanatory variables (Field, 2018). Ordinal regression analysis predicts the probability of CRSV happening when one of the independent variables is present. However, before you can run an ordinal regression analysis the data has to meet certain assumptions. For instance, the parallel lines assumption, according to this assumption, parameters should not change for different categories. In other words, correlation between the independent variables and the dependent variables does not change for the dependent variable categories and the slopes are equal as shown in graph one. For example, when applied to this study the parameter of territorial control on CRSV should be the same in each category of CRSV, which results in 4 equal slopes as CRSV consists of four categories. Hence, this assumption states that the categories of the dependent variable are parallel to each other (Ari & Yildiz, 2014). This assumption is tested by the Brant-test, which tests whenever the parameters of the predictors are the same across the categories of the dependent variables. The null hypothesis of the test states that the slopes coefficients in the model are the same across all response categories.

Graph one: Conditions where the assumption of parallel lines holds and when it does not



Source: Ari & Yildiz (2014)

To be able to do an ordinal logistic regression analysis, a non-significant ($p > 0.05$) result of the Brant-test is needed. The effect of our independent variables, territorial control, extortion, smuggling and genocide on CRSV, should be the same for all four categories of CRSV. However, upon examining the results of the Brant test, a *p*-value of 0.001 is obtained. This value, being less than 0.05, indicates significant, allowing to reject the null hypothesis of the Brant Test. The parameters and effect of the independent variables, territorial control, extortion, smuggling and genocide on CRSV, are not the same for all categories of CRSV. This means that the data does not meet the assumption of parallel lines. There are four different slopes, similar to the example in graph one. In conclusion, ordinal logistic regression analysis does not fit our data. When the assumption of parallel lines is not met, scholars such as Field (2018) and Ari and Yildiz (2014) advise using a multinomial logistic regression analysis to analyse the data (Ari & Yildiz, 2014; Research with Fawad, 2022; Laerd Statistics, n.d.; Field, 2018).

Multinomial logistic regression analysis seeks to describe and comprehend the link between a categorical dependent variable with more than two categories and a set of independent variables. It enables us to investigate how the independent variables affect the likelihood of an observation falling into each of the dependent variable's categories (Hosmer & Lemeshow, 2000).

However, there are down-sides to using multinomial logistic regression analysis. For instance, when analysing rare events or categories with imbalances, multinomial logistic regression may not be appropriate. When this is the case the model could have trouble correctly estimating the relationship between predictors and rare categories, which could result in findings that are unstable and unreliable. As for our dataset CRSV is fortunately a rare event, additionally the cases of CRSV are oddly distributed across the four categories. Therefore, multinomial logistic regression analysis does not fit the dataset and the outcome will be unstable and unreliable (Agresti, 2002).

To answer the hypotheses and subsequently the research question, binary logistic regression analysis is used. As already mentioned, the aim of binary logistic regression analysis is to describe the relation between one or more independent variables and a binary dependent variable. A binary variable is a variable with two potential outcomes. The independent variables used during the analysis can be continuous, categorical, or both. Based on the values of the independent variables, the model calculates the likelihood of the binary result. It determines the chance of the event happening and converts it using the logistic function, which plots the probabilities on a scale of 0 to 1.

As the dependent variable, CRSV, is an ordinal variable with 4 categories, the variable has to be collapsed into two categories. This is done by recording the CRSV variable into; CRSV did not occur (0) and CRSV did occur (1). The category of CRSV did not occur consists of category none, no reports were issued that mentioned rape or other sexual violence related to the conflict. The category CRSV did occur, consists of the categories isolated (1), numerous (2) and massive (3). In all these cases a report was issued that CRSV took place at one point during the conflict. The difference between these categories is the prevalence at which CRSV took place. Since this thesis is interested in whether CRSV occurs rather than its prevalence, this is not a concern for the study. Additionally, this research is interested in if the likelihood of CRSV increases or decreases if a certain structural cause is present. Lastly, to run the analysis a reference category must be chosen. For all variables, independent as well as dependent, the reference category is the first category. This method will help us answer our hypothesis and subsequently the research question.

This research will use a significance level of 95% for all our testing, meaning our alpha is 0.05.

3.2.1. Descriptive table

Table one shows the descriptive values of the variables that are measured in the analyses. Due to our focus on insurgent organisation, the SVAC data is filtered to only include insurgent organisation. This implies that additional actors included in the SVAC dataset are not taken into account while doing the analysis. This leaves us with 1624 cases, each of which identifies an actor in a conflict during a specific point between 1989 and 2019. The ordinal variant of CRSV consisted of four categories, with each category indicating a level of magnitude of CRSV. Since this thesis is performing a binary logistic regression analysis our dependent variable is collapsed into two categories. With the value zero indicating that there was no report of CRSV and one indicating that there was a report of CRSV. This leaves us with 1398 observations where there was no report of CRSV and 101 cases in which there was a report of CRSV.

Territorial control is also a binary variable with two categories, either insurgencies have territorial control or they do not. The variable consists of 654 observations, with 389 insurgencies not controlling territory and 265 observations controlling territory. As the observations of territorial control are lower than the observations of CRSV, this means that there is a high amount of missing as shown in table one. The reasons for this and the implications this has will be discussed in the next section (section 3.6.2). What has to be noted is that all observations are done over a time period between 1998 and 2012. This means an insurgent organisation could have had territorial control one year and could have lost this territorial control the following year.

Extortion consists of two categories, with 716 observations falling into the category in which insurgencies do not engage in extortion and 304 observations falling into the category in which they did engage in extortion to access natural resources. Again these observations are done over a time period, meaning an insurgent organisation could have engaged in extortion one year and could not have used extortion the following year. Additionally, the overall 716 observations could contain ten observations of the same actor engaging in extortion all in a different year.

Moreover, smuggling is also a binary variable consisting of two categories. 687 Observations fall into the category of not using smuggling to access natural resources, while 333 fall into the category of using smuggling to access natural resources. Just as with the previous two variables these observations are done over a period of time, meaning 716 do not indicate 716 actors engaging in smuggling. It for example can be interpreted as 50 actors all engaging in smuggling 14 times over a time period of 1998 to 2012. Since, the variables extortion and smuggling came from the same dataset they have the same amount of missing cases, 604. This number is high considering the CRSV dataset consists of 1624 observations. The reasons for this and the implications will be discussed in the following section (section 3.6.2).

Lastly, genocide is also a binary variable, either insurgencies have committed genocide or they did not. Over a time period 31 years there were 90 observations of insurgencies committing genocide and 1594 instances in which there was a conflict but genocide did not occur.

Furthermore, there are three control variables. The first control variable is level of democracy. The level of democracy consists of ten categories. The lower the value the more autocratic a country is, and the higher the value the more democratic a country is. The highest as well as the lowest value of the scale have been reached, meaning at one point in time a country in conflict was fully autocratic and at one point in time a country in conflict was fully democratic. The second control variable is intrastate conflict. Intrastate conflict is a binary variable, either a conflict is an intrastate conflict or it is not. The variable is measured for each year, meaning a conflict could start out as an intrastate conflict, but could evolve into an intrastate conflict. The last control variable is GDP per capita. GDP per capita value is transformed into the logged version to better interpret the effect. The lowest value reached is 2.300 and the highest value reached is 7.330, all other variables are placed between these two values.

When combining all the dataset, this research is left with 654 observations that have data for all variables. This means the overall *N* for the analysis is 654.

Table 1: Descriptive statistics dependent and independent variable

	Valid N	Minimum	Maximum	Mean	Standard deviation	Missing
Main effects						
Magnitude CRSV (Ordinal variant)	1529	0.000	3.000	0.100	0.423	95
Category 0: None	1423					
Category 1: Isolated	68					
Category 2: Numerous	24					
Category 3: Massive	14					
Magnitude CRSV (Nominal variant)	1499	0.000	1.000	0.067	0.251	125
None (0)	1398					
CRSV did occur (1)	101					
Territorial control	654	0.000	1.000	0.410	0.491	970
No territorial control (0)	389					
Territorial control (1)	265					
Extortion	1020	0.000	1.000	0.300	0.456	604
No extortion (0)	716					
Extortion did occur (1)	304					
Smuggling	1020	0.000	1.000	0.330	0.469	604
No smuggling (0)	687					
Smuggling did occur (1)	333					
Genocide	1594	0.000	1.000	0.057	0.231	30
No genocide (0)	1504					
Genocide did occur (1)	90					
Control variables						
Level of democracy	1546	0.000	10.000	3.568	3.575	78
Intrastate conflict	1594	0.000	1.000	0.796	0.403	30
(log) GDP per capita	1604	2.300	7.330	4.591	0.932	20

3.2.2. Missing values

As displayed in the previous section, a significant amount of missing values is present in the data. Missing data occurs when there is no data for a certain variable or participants. Missing data could be problematic as it can cause a sampling bias. Sampling bias arises when some individuals of a population are consistently more likely to be chosen for a sample than other members of the population. As a result of the data coming from an unrepresentative sample, it is possible that the findings cannot be generalisable to the broader population. For example, when looking at the data of CRSV and most of the missing data is located in one specific region of the world. The analysis cannot make the outcome generalisable to the world as a specific region is underrepresented. However, missing data is only problematic depending on the type of missing data (Bhandari, 2022).

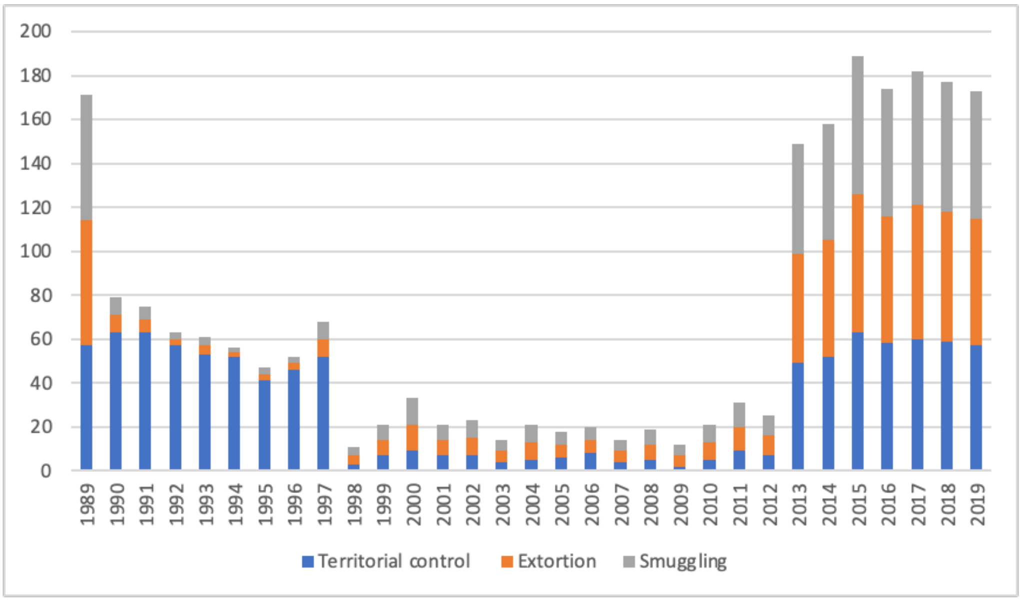
There are three types of missing data; data missing at random (MAR), data missing completely at random (MCAR) and non-ignorable missing data. Data is considered as MAR when instead of being caused by the particular variable on which the data are missing, the pattern of missing data may be traceable or foreseeable from other variables in the dataset. For example, only between the time period of 1989 and 1995 there is data missing for the variable extortion (Rubin, 1978; Brown & Kros, 2003). Data is considered MCAR when the probability of response demonstrates that the independent variable and the dependent variable are independent. The difference between MCAR and MAR is that MCAR data exhibits a higher level of randomness than MAR does (Rubin 1978; Brown & Kros, 2003; Kim, 2001). Lastly, missing data is considered non-ignorable when the pattern of missing data can only be explained by the variable on which the missing data is based. Therefore, data is deemed non-ignorable when the probability of response depends on variable X and possibly on variable Y, given two variables, X and Y (Rubin, 1978; Brown & Kros, 2003). To test whenever the missing data is considered as MAR, MCAR or non-ignorable the Little's MCAR test is used. The test evaluates the null hypothesis that the missing data is missing completely at random. A *p*-value of less than 0.05 indicates that the missing data is not MCAR and is either missing at random or non-ignorable.

A large part of the missing values in our data stems from the dataset responsible for the variable territorial control, the Big Allied and Dangerous (BAAD) data set. As shown in the descriptive statistics table one, the variable territorial has 970 cases of missing values. The BAAD data set coverage of the time span from 1998 to 2012 may be the cause of this. The SVAC data set, which provides the data for our dependent variable, covers the period from 1989 till 2019. Therefore, there are gaps in the data for the time periods 1989 to 1997 and 2013 to 2019. Additionally, there is also a significant amount of missing data in the variables extortion and smuggling. This also might have to do with the time span the original data set covers. The Rebel contraband dataset covers the period from 1990 till 2012, therefore there will be missing data in the year 1989 and the period 2013 till

2019. It is therefore expected that the missing data will be explained by a pattern in years. Additionally, since it is expected that the variable year will account for the missing data, the missing data may be classified as MAR. The variable year makes it possible to predict and track the trend of missing data. To test this hypothesis, the Little's MCAR test is ran twice, once without the variable year and one including the variable year.

The null hypothesis of the Little's MCAR test is that the missing data is completely random. When the Little's MCAR test is analysed without the variable year included the outcome shows a Chi-square of 0, with a significance level of 0.001. As the level of significance is below the alpha of 0.05 this clearly indicates a significant effect. As a result null hypothesis can be rejected, meaning the data is not missing completely at random and there is a pattern to the missing data. When the Little's MCAR test done again with the variable year included the outcome is different. The Chi-square has a value of 0.236 with a significance level of 0.627. The significance level of 0.627 is above the alpha of 0.05 (appendix three, table one). This means that Little's MCAR test is not significant and it can therefore be argued that the missing data is at random. This also indicates that the missing data is explained by the variable year and the missing values can be considered as MAR. This pattern is also shown in graph 2. The variable territorial control covers the period between 1998 and 2012, the graph shows a clear increase in missing values for the period before 1998 and after 2012. There is also a clear increase in missing values for the variable extortion and smuggling, in the year 1989 and after 2012, this is caused by the Rebel contraband data set covering the period from 1990 till 2012.

Graph 1: Missing values variables territorial control, extortion and smuggling



There are several ways to solve the problem of MAR. For example, the use of complete data only, this means that you only include values with complete data. However, only when data is classified as MCAR can this method be used successfully. When this is not the case, this will make the results non-generalisable to the overall population. Hence, this solution will not be used and the solution of deleting selected cases of variables will be used instead. This solution can be utilised when a non-random pattern of missing data is present. In practice this means that this thesis can only make generalisable statements about the period between 1998 and 2012. Although there is no data of the variables territorial control, extortion and smuggling for the period of 1989 till 1999 and 2013 and 2019, this does not diminish the usefulness of the data and does not have a significant impact on the dependent variable, meaning this method can be applied (Brown & Kros, 2003). This thesis therefore does not have to worry about any sampling bias. Furthermore, when analysing the data, no other patterns of missing data were shown throughout the dataset. For example, there is no pattern of missing data from a specific region in the world or a specific ethnic group.

4. Analysis

This chapter analyses the results using table two. In the first part (section 4.1.1) of the table looks at the results related to the first two hypotheses; "*Insurgencies who do not control a territory are more likely to commit CRSV"* and *"Insurgencies who do control a territory are less likely to commit CRSV"*. Arguably, when insurgencies do not control a territory the greater the likelihood they will commit CRSV. The second part (section 4.1.2 and 4.1.3) looks at the third and fourth hypotheses; *"Insurgencies who use extortion to access natural resources are more likely to perpetrate CRSV"* and *"Insurgencies who use smuggling to access natural resources are less likely to perpetrate CRSV"*. Here is expected that when insurgencies use extortion to access natural resources this will increase their likelihood in committing CRSV. In contrast when insurgencies use smuggling to access natural resources it is expected them to be less likely to commit CRSV. The third part (section 4.1.4) looks at the fifth and last hypothesis; *"Insurgencies who commit genocide are more likely to commit CRSV"*. According to the theoretical chapter it is expected that when insurgencies commit genocides, they are more likely to commit CRSV.

The table is made up of five distinct models. The first four models all examine the influence of one independent variable on the dependent variable, whereas the final model includes all independent variables. For each model the coefficient, standard error, Wald value, significance level and odds ratio of each variable are mentioned. The coefficient shows the effect the specific independent variable has on CRSV. The coefficients are given in (log) odds, which are the logged value of the odds. The use of log-odds is preferred to odds as it makes interpreting the outcome easier. The (log) odds of not committing CRSV ranges between zero and one, whereas the odds of committing CRSV range from one to infinity. This makes the magnitude of odds of not committing much smaller than odds of committing CRSV. When the logged value of the odds is used you get a normal distribution of the same plot, making interpreting easier. Moreover, the odds ratio of each variable is included. If the odds ratio is greater than one, this indicates that the event is more likely to occur as the value of the independent variable increases. For instance, if the odds ratio of extortion is above one, this indicates that insurgent groups are more likely to commit CRSV. If the odds ratio is smaller than one, the event is less likely to occur as the value of the predictor increases. The difference between odds ratio and log-odds is the relation they make assumptions about. (Log) odds say something about the probability of an event occurring in relation to the event not occurring. For instance, the probability of CRSV occurring in relation to CRSV not occurring. The odds ratio indicates how likely an outcome is to occur in one context relative to another. In other words, it says something about the likelihood of CRSV occurring in the context of an insurgent group controlling a territory to CRSV occurring in the context of an insurgent group not controlling territory.

At the bottom of the table, each model mentions the -2Log likelihood, Nagelkerke's R-square, and Hosmer and Lemeshow's test. All these tests say something about the goodness of fit of the overall model. The greater the log-likelihood value the better a model matches the data. However, you can only use these tests comparing models with the same amount of predictor variables (Field, 2018). Nagelkerke's R-square summarises the proportion of variance in the dependent variable explained by the predictor variable (Nagelkerke, 1991). Lastly, the Hosmer and Lemeshow's test, is a statistical evaluation of the goodness of fit of logistic regression models. Unsatisfactory model fit is indicated by a high value with a significance level under 0.05. The logistic regression model fits the data well when the value is low and the level of significance is above 0.05 (Field, 2018).

4.1 Binary logistic regression: assumptions

The prerequisites for the binary logistic regression analysis are the following: (1) the existence of a binary dependent variable; (2) the linearity of the dependent variable's logit; (3) the independence of errors; (4) the absence of multicollinearity; and (5) the necessity of a minimum sample size. As already mentioned in the previous chapter, the dependent variable is collapsed into dichotomous categories; (0) CRSV did not occur and (1) CRSV did occur. Hence the first assumption is met. The second assumption states that a linear relationship between any continuous predictor variables and the logit of the dependent variable must exist (Field, 2018). However, this presumption does not apply to this research as this study only uses categorical variables.

The third assumption requires the independence of errors. When this assumption is violated the data will be overdispersed. Overdispersion occurs when the predicted value is not the same as the actual observed value. For example, when it is predicted that insurgent organisations who use extortion increase the odds of CRSV occurring with 6 points, it is also expected that the observed data points increase with 6 points. However, when the expected value and the observed value do not match and the observed value turns out higher than expected there is overdispersion (Field, 2018). To test this assumption a Durbin-Watson test is used, producing a value of 1.633. The values in the Durbin-Watson test range from zero to four, with a value between zero and two indicating positive autocorrelation, a value between two and four negative autocorrelation and a value of two meaning no autocorrelation. Field (2018) uses the rule of thumb that values in the range of 1.5 and 2.5 are relatively normal and there is no cause for concern. Our value falls into this range, meaning the third assumption of independent errors is met. To test the fourth assumption of multicollinearity, a linear regression analysis is run to analyse the collinearity diagnostic. The variance inflation factor (VIF) values and tolerance statistic values showed no values over 10 (VIF) or below 0.1 (tolerance) Therefore, there is no indication of multicollinearity (Field, 2018). The table with all VIF and tolerance values can be found in appendix three, table two.

Lastly, several scholars (Hosmer, Lemeshow and Sturdivant; 2000) recommend a total sample size of 400. Our dataset consists of a N bigger than 400, hence this condition is met. Additionally, Hair et al. (2013) recommends a minimum of 10 cases per estimated parameter, per category of the dependent variable. The dependent variable consists of two categories, and this study contains (including control variables) seven independent variables. Therefore, a minimum of 140 cases per category of the dependent variable is required. All categories consist of more than 140 cases per category, hence this requirement is met as well. Concluding, since all assumptions are met, the result of the analysis can be confidently interpreted.

Table 2: result of binary logistic regression analysis

	Model 1			Model 2			Model 3			Model 4			Model 5		
	***b* (SE)**	**Wald**	**Exp(B)**	***b* (SE)**	**Wald**	**Exp(B)**	***b* (SE)**	**Wald**	**Exp(B)**	**b(SE)**	**Wald**	**Exp(B)**	**b(SE)**	**Wald**	**Exp(B)**
Variables															
Constant	-2.375 (0.505)	22.081***	0.093	-2.675 (0.405)	43.649***	0.069	-1.738 (0.432)	16.188***	0.176	-1.757 (0.220)	63.940***	0.173	-2.958 (0.578)	26.181***	0.052
Main effects															
Territorial control	0.883 (0.336)	6.883**	2.418										0.854 (0.353)	5.851*	2.349
Extortion				0.993 (0.347)	8.185**	2.699							0.998 (0.368)	7.358**	2.712
Smuggling							-0.049 (0.363)	0.018	1.050				-0.401 (0.399)	1.009	0.670
Genocide										-18.630 (9715.918)	0.000	0.000	-18.622 (9553.397)	0.000	0.000
Control variables															
Level of democracy	-0.191 (0.057)	11.458***	0.826	-0.226 (0.046)	15.959***	0.798	-0.194 (0.057)	11.847***	0.823	-0.195 (0.056)	11.982***	0.823	-0.142 (0.079)	3.245	0.867
Intrastate conflict	-0.022 (0.473)	0.002	1.022	0.164 (0.484)	0.114	1.178	-0.194 (0.460)	0.178	0.824	-0.168 (0.461)	0.133	0.716	0.977 (0.663)	2.168	2.656
(log) GDP per capita	0.000 (0.000)	0.176	1.000	0.000 (0.000)	0.010	1.000	0.000 (0.000)	0.204	1.000	0.000 (0.000)	0.214	1.000	0.000 (0.000)	2.409	1.000
Model summary															
-2 Log likelihood	281.552			280.600			288.656			286.242			155.083		
Nagelkerke R square	0.103			0.107			0.074			0.084			0.305		
Hosmer and Lemeshow test	36.205			10.501			14.287			17.376*			7.217		

Independent variable = Prevalence Conflict Related Sexual Violence (CRSV)
Standard error is mentioned between brackets
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$; (two-tailed)

4.1.1 Model one

The first model includes the independent variable, territorial control. By analysing this model this thesis can say something about the hypotheses; "*Insurgencies who do not control a territory are more likely to commit CRSV”* and *“Insurgencies who do control a territory are less likely to commit CRSV”.*

As argued in chapter two, when insurgencies are dependent on the local population and the local population is more likely to voluntarily join the organisation, insurgent organisations are less likely to commit CRSV (Asal & Nagel, 2021; Kalyvas & Kocher, 2007; Wood, 2006). However, when these groups do not control territory they rely on coercive methods to recruit civilians. To create social cohesion, insurgents are more likely to commit CRSV. It is therefore expected that insurgent organisations who do not control territory are more likely to commit CRSV (Cohen, 2017; Eck, 2014). Territorial control is a binary variable, meaning either an insurgent organisation controls a territory or it does not. This makes the range of this variable between the 0 and 1.

The first thing analysed is the goodness-of-fit of the model. The log-likelihood is similar to that of the other four models, therefore the predictor does not significantly match the data better than the other predictors. Additionally, the Hosmer and Lemeshow's test is not significant, meaning the model fits the data well and lastly the Nagelkerke’s test has a value of 0.223. This means that 22.3 percent of the variance in CRSV is explained by this model.

Looking at table three, the coefficient of territorial control is 0.951 (log) odds. Because this value is above zero it means that the territorial control has a positive effect on insurgencies committing CRSV. The (log) odds tell us something about the probability of insurgent organisations committing CRSV when they control territory. This means that the likelihood of an insurgent organisation with territorial control committing CRSV is 0.951 (log) odds. So, insurgencies who control territory are more likely to commit CRSV. Additionally, territorial control has an odds-ratio of 2.588. This means that the odds of insurgent organisations who control territory committing CRSV are 2.588 higher than insurgencies who do not control territory, controlling for the effect level of democracy, intrastate conflict and GDP. To evaluate the hypothesis, an examination of the *p*-value is necessary. Despite the *p*-value being below the threshold of 0.05, it does not provide sufficient evidence to reject the null hypothesis. Surprisingly, territorial control exhibits a positive impact on the likelihood of insurgencies perpetrating CRSV, contrary to the initial prediction. As a result, the hypothesis that states states insurgencies without territorial control are not more prone to perpetrate CRSV and insurgencies with territorial control are less prone to perpetrate CRSV, must be rejected.

4.1.2 Model two

The second model analyses the effect of extortion on CRSV. By analysing the relation between extortion and CRSV the analysis can say something about the hypothesis; *“Insurgencies who use* *extortion to access natural resources are more likely to perpetrate CRSV".* As described in chapter two, insurgent organisations who engage in extortion are more likely to commit CRSV, as perpetrating CRSV does not threaten their access to natural resources. Extortion is a dichotomous variable, this means that either insurgent organisation did engage in extortion or did not.

First the goodness-of-fit of the model is determined. The predictor does not significantly fit the data better than the other predictors since the log-likelihood is comparable to that of the other four models. The Hosmer and Lemeshow's test is not significant, indicating that the model fits the data well. Lastly, the Nagelkerke test has a value of 0.226, indicating that this model explains 22.6 percent of the variation in CRSV.

Model two indicates a coefficient of 1.021 (log) odds for extortion. As this value is above zero this means that the relation between extortion and insurgent groups committing CRSV is positive. So, insurgent groups who engage in extortion are more likely to commit CRSV. The coefficient also indicates that the likelihood of insurgent organisations who engage in extortion perpetrate CRSV is 1.021 (log) odds. Additionally, there is an odds-ratio of 2.775, the odds-ratio compares the likelihood of insurgencies to commit CRSV in the context of when they do or do not engage in extortion. This means that odds of an insurgent group who engages in extortion committing CRSV is 2.775 times higher than the odds of a group committing CRSV who does not engage in extortion, controlling for the effect of level of democracy, intrastate conflict and GDP. Since the *p*-value is below the alpha of 0.05 this means that extortion does explain a part of the variance of CRSV. Additionally, this means that the null hypothesis can be rejected and argue that insurgencies who use extortion to access natural resources are more likely to perpetrate CRSV.

4.1.3 Model Three

The third model shows the relation between smuggling and likelihood of an insurgent organisation committing CRSV. By looking at the outcome of the logistic regression analysis this thesis can say something about the hypothesis; *"Insurgencies who use smuggling to access natural resources are less likely to perpetrate CRSV".* As argued in chapter two, insurgencies who smuggle are more dependent on their co-conspirators, making it less likely for insurgencies who smuggle to commit CRSV. The variable smuggling consists of two categories; either insurgencies did use smuggling to access natural resources or they did not.

The first thing looked at is how well the model matches the data. Since the log-likelihood is equivalent to that of the other four models, the predictor does not substantially fit the data better than the other predictors. The model effectively fits the data, as shown by the non-significant Hosmer and Lemeshow's test. Finally, the Nagelkerke test yields a value of 0.193, showing that this model explains 19.3 percent of the variation in CRSV. When looking at the coefficients, the first thing observed is that the influence of smuggling on the chance of an insurgent organisation committing

CRSV is not significant. The p-value is greater than the alpha of 0.05, indicating that the chance of the null hypothesis being true is greater than 0.05. As a result, this thesis fails to reject the null hypothesis. Insurgent organisations who use smuggling to access natural resources are not significantly more likely to perpetrate CRSV. Therefore, the coefficient of smuggling cannot be interpreted any further.

4.1.4 Model Four

This fourth model includes the last independent variable, genocide. By analysing the relationship between genocide and CRSV, this thesis can say something about the hypothesis; *"Insurgencies who commit genocide are more likely to commit CRSV"*. Chapter two mentions that CRSV is used as a tool of terror and population elimination during genocide. It is therefore expected that insurgencies who engage in genocide are more likely to perpetrate CRSV.

WThe value of the Wald test is zero, meaning the variable genocide does not add anything to the overall model. The effect of genocide is also not significant. The *p*-value is above the alpha of 0.05, meaning the probability of rejecting the null hypothesis is greater than 0.05. This means that the null hypothesis cannot be rejected and that insurgencies who commit genocide are not more likely to commit CRSV. Hence, the coefficient of genocide cannot be interpreted any further.

4.1.5 Model Five

The fifth and last model is the full model, meaning all main effects and control variables are included. The first thing looked at is the overall goodness of fit. The log-likelihood has a value of 155.083. However, as the amount of predicting variables has to be the same in order to compare the log likelihood with the other models, for this model the value is irrelevant as this model consists of more predicting variables. The Nagelkerke test has a value of 0.255, this means that 22.5 percent of the variance in CRSV is explained by the model. Lastly, the Hosmer and Lemeshow test is not significant, meaning the model fits the data correctly.

Territorial control has a coefficient of 0.804 log-odds. The coefficient is above zero meaning the effect of territorial control on insurgencies perpetrating CRSV is positive, so the likelihood of an insurgent organisation with territorial control committing CRSV is 0.804 log-odds. Additionally, the outcome provides us with an odds-ratio of 2.234, meaning the odds of insurgent organisations who control territory committing CRSV are 2.234 times higher than insurgencies who do not control territory, controlling for all other response variables. Lastly, the *p*-value is smaller than the alpha of 0.05. This means that the effect of territorial control on CRSV is significant. The outcome therefore is the same as in model one. The effect goes the opposite direction of theoretical expectation. Therefore, this thesis can conclude that insurgents who do not control territory are not more likely to commit CRSV and insurgencies who do control a territory are not less likely to commit CRSV.

The second independent variable is extortion. The coefficient for extortion is 0.947, since the value is above zero this means that the effect of extortion on CRSV is positive. So, insurgent organisations who engage in extortion to access natural resources are more likely to engage in CRSV, specifically 0.947 log-odds more likely. Additionally, the outcome gives us an odd-ratio of 2.577. This means that the odds of an insurgent organisation engaging in extortion committing CRSV is 2.577 times more likely than insurgent organisation who do not engage in extortion, controlling for all other variables included in the logistic regression. The Wald value is above zero, as a result the variable does explain some of the variance in CRSV. The *p*-value is below the alpha of 0.05, meaning that this thesis can reject the null hypothesis and confirm the alternative hypothesis. Insurgencies who use extortion to access natural resources are more likely to perpetrate CRSV.

The final two independent variables considered are smuggling and genocide. Our initial observation reveals that neither smuggling nor genocide exhibit a significant effect, as indicated by a p-value below 0.05. Consequently, the null hypothesis cannot be rejected. This implies that insurgencies involved in smuggling are not less inclined to commit CRSV, and insurgencies perpetrating genocide are not more likely to engage in CRSV. Furthermore, the Wald value for genocide is zero, indicating that this variable does not account for any of the variation in CRSV and can be excluded from the model. Given the negligible impact of smuggling and genocide, no further interpretations or conclusions can be made.

4.1.6 Control variables

The first two control variables, level of democracy and intrastate conflict, exhibit *p*-values above 0.05 across all five models. This indicates that neither of the effects on insurgencies engaging in CRSV are statistically significant. Consequently, any further analyse the impact of these variables cannot be done. However, the final control variable, (log) GDP per capita, does have a *p*-value below 0.05, indicating a significant effect on CRSV. In all five models, the coefficient is negative, implying that an increase in (log) GDP per capita results in a decrease in the likelihood of insurgencies committing CRSV by a specific log-odds amount as determined by each model. Additionally, the odds ratio is below one, signifying that for every unit increase in (log) GDP per capita, the odds of insurgencies committing CRSV decrease by the amount specified in the model. Therefore, it can be argued that there exists a negative association between GDP per capita and insurgencies omitting CRSV. In other words, countries with higher GDP per capita are less likely to witness insurgencies engaging in CRSV.

4.2 Summary

Lastly, the findings are briefly examined. Two of the four independent variables demonstrate a notable impact on the dependent variable CRSV. Both extortion and territorial control seem to influence the involvement of insurgencies in CRSV. However, the effect of territorial control contradicted our initial expectations from chapter two. The hypothesis proposed that insurgencies in control of territory would be less inclined to engage in CRSV, while those without territorial control would be more prone to CRSV perpetration. Yet, the results of the binary logistic regression analysis revealed that insurgencies in control of territory are more likely to commit CRSV, whereas those without territorial control are less likely to do so. Further insights into this occurrence will be explored in the subsequent chapter, offering possible explanations. The variables smuggling and genocide do not exert a significant impact on the involvement of insurgencies in CRSV. Neither of them influences the likelihood of insurgencies committing CRSV. Consequently, any further interpretation regarding the outcome of these variables cannot be done. Possible explanations for this will be explored in the subsequent chapter. Additionally, all outcomes of the binary regression analysis will be combined to answer the research question.

5. Discussion and Conclusion

The research aim was to shed light on the structural causes that are responsible for insurgent organisations perpetrating CRSV. The previous chapter showed interesting results from the outcomes of the analyses. These results will be further interpreted and discussed in this chapter. This chapter will analyse and examine the results further. Following that, a conclusion and response to the main research topic will be provided. Finally, this chapter discusses the theoretical and practical implications, as well as the study limitations and future research directions.

5.1 Interpretation of results: binary logistic regression analysis

The binary logistic regression analysis provided some interesting results. The outcome of the analysis shows that two out of five suggested relationships between the CRSV and the structural causes seem to be significant. Territorial control and extortion appear to have a significant effect on insurgent organisations perpetrating CRSV. All other hypotheses are rejected, as will be outlined in the upcoming sections.

Although the results show that territorial control has a significant effect on the likelihood of insurgencies perpetrating CRSV, the effect is in the opposite direction of what was projected in this thesis. The findings therefore do not support the expectations of this study outlined in chapter two. The expectation was that when groups do control territory they will be less likely to perpetrate CRSV and when groups do not control territory they are more likely to commit CRSV. Previous studies argued that when insurgent organisations establish control it gives them access to forcibly or voluntarily recruited fighters, they control human capital (Asal & Nagel, 2021; Allison, 2004). Additionally, Wood (2006) argues that insurgencies who want to govern often refrain from using violence as well as CRSV. There are two reasons for this. Firstly, the local population is more likely to fight in support of the rebels and secondly rebels who seek to govern often depend on civilians for support (Asal & Nagel, 2021; Kalyvas & Kocher, 2007; Weinstein, 2007). The combination of these two reasons result in insurgencies who control territory are more likely to refrain from CRSV. Insurgencies who do not control territory rely on coercive methods to recruit civilians, these methods are often very violent. Civilians who are violently recruited into a group are less likely to commit to the group and more likely to abandon them (Allison, 2004; Eck, 2014). To solve this, commanding officers use socialisation processes to build social cohesion. CRSV is a very efficient way to integrate recruits into the insurgent norms (Cohen, 2017). Therefore, insurgencies who do not control territory are more likely to perpetrate CRSV.

However, the results provided a positive effect, which indicated the likelihood of insurgencies who control territory committing CRSV is higher than insurgencies who do not control territory committing CRSV. The foremost explanation of the results is insurgents who control territory still use CRSV to spread their dominance over a territory. There are always potential defectors in a territory and if coercion does not achieve compliance they may opt to cleanse the territory of opposition, whereby CRSV is a widely used tool (Asal & Nagel, 2021; Mullins, 2009). Another possible explanation is that controlling access to women is a form of social power that enables insurgents to maintain control and govern by securing group member's loyalty. Asserting and exercising control over women's bodies, economic and reproductive capital and their sexuality is the key to governance efforts associated with prolonged territorial control (Asal & Nagel, 2021). According to Phoebe Donnelly's (2019) study, Al-shabaab established a decentralised system of forced marriages as part of a goal to strengthen its territorial authority, cultivate links with the local community, and achieve legitimacy. Marriage was portrayed as a commitment to the group rather than a relationship between men and women. Hence, rebel groups might use CRSV, such as forced marriage and sexual slavery, to govern and hold territorial control for lengthy periods of time. Although no conclusion can be drawn from these findings, this outcome is remarkable and would therefore be an interesting starting point for further research.

The access to natural resources is considered an important structural cause in explaining violent behaviour of insurgencies (Weinstein 2005 & 2007). As prior research shows, resource-rich insurgent groups are more prone to use violence against the local population. However, chapter two outlines that it is not only the access to natural resources that influences insurgent behaviour, it is also how they access natural resources (Conrad et al., 2019). The results show that extortion has a significant positive effect on likelihood of insurgencies using CRSV. In other words, the likelihood of an insurgent organisation perpetrating CRSV is higher when the organisations engage in extortion to access natural resources than when they do not, thereby confirming hypothesis three. This finding supports the expectations and previous research done outlined in chapter two. Conrad et al. (2019) argues that insurgent groups who engage in extortion have to offer little benefits to producers or the broader population. Additionally, they do not need to worry about CRSV perpetrated by their soldiers because the abuse does not threaten their access to natural resources.

Although, the outcome of extortion is in line with the expectations of this study, other significant effects of smuggling and genocide appear to be absent, as will be outlined next. Previous studies found that when insurgencies use smuggling as a way to access natural resources, they are more dependent on the population. Successful resource smuggling requires a great level of energy, discretion and luck (Conrad et al., 2019). Therefore, the use of CRSV or other forms of violence against these smugglers are less effective as the collaborators have greater agency to exit the relationship. Additionally, the collaborators have the ability to provide information to the authorities (Berman et al., 2011). Hence, there is a restraint to perpetrate violence against these collaborators. It is therefore expected that insurgent organisations who use smuggling to access natural resources are less likely to perpetrate CRSV. However, the outcome cannot provide a significant relationship between smuggling and insurgencies perpetrating CRSV. The results of this research therefore does not provide enough evidence to confirm hypothesis four.

An explanation for this might be that although insurgencies refrain from using CRSV against collaborators within the smuggling routes, this does not mean they refrain from using CRSV against civilians who are not involved in the smuggling routes. As it will not endanger their smuggling route and access to natural resources as they perpetrate CRSV against civilians who are not directly or indirectly involved in their route. Therefore, insurgencies who engage in smuggling to access natural resources do not have to be less likely to perpetrate CRSV.

The last possible structural cause affecting the likelihood of insurgent organisation perpetrating CRSV is genocide. Previous research argues that when individuals face difficult life conditions they tend to turn to groups for identity, security and belonging. These groups often elevate themselves by devaluing other groups. As a result, they create ideologies that offer hope and a vision of life, however these ideologies often identify enemies who must be dealt with in order to fulfil the ideology (Staub 2012 & 2013). CRSV is a strategic tool used to eliminate specific groups of people. Genocidal rape is used to spread fear among the population, humiliate the population, derogate women and create ethnic mixed children to maintain the humiliation, spoilage and domination. Additionally, the spreading of for example HIV is also used to eliminate a population. Hence, it is expected that insurgencies who commit genocide are more likely to commit CRSV. However, the outcome cannot provide a significant relationship between genocide and insurgencies perpetrating CRSV. The results of this research therefore do not provide enough evidence to confirm hypothesis five.

The insignificant result might be caused by the accessibility of the data. As mentioned in the descriptive table there are only 90 occurrences of genocide on 1504 observations. This means that only six percent of all insurgencies perpetrated genocide. Additionally, only cases which have data on all variables are included, this means there is a *N* of 654. This means even less cases of genocide are left. Therefore, there is not enough data to observe an effect of genocide on CRSV.

5.2 Conclusion

CRSV is a pervasive and distressing problem that has afflicted societies across different historical periods, causing immense harm to individuals and communities impacted by armed conflicts. It refers to a range of sexually violent acts perpetrated against individuals in times of armed conflict. Despite its widespread occurrence, CRSV has been recognized and condemned as a punishable offense under international law in both international and non-international armed conflicts. International organizations such as the United Nations and the Red Cross estimate that CRSV is prevalent on a large scale, yet there are also instances of conflicts where the incidence of CRSV remains relatively limited, even amid widespread violence targeting civilian populations (International Committee of the Red Cross, 2022; Germano, 2018; UNDP, 2022). Previously done research, mostly focuses on individual motives as well as group dynamics to explain CRSV and has little attention for structural causes. The aim of this research is therefore to better understand why CRSV is widely used in one conflict and absent in others. This research attempted to find an answer to the following research question;

> *Why is sexual related violence widely used in some conflicts and less widespread in other conflicts?*

In order to examine the question this thesis identified four possible structural causes that might be the underlying causes to why CRSV is widespread in one conflict and nearly absent in others. Surprisingly, it is not the absence of territorial control that increases the likelihood of CRSV, rather the presence of territorial control that increases the likelihood of insurgencies perpetrating CRSV. Additionally, when insurgencies engage in extortion to access natural resources the likelihood of them committing CRSV increases. Lastly, smuggling and genocide do not increase the likelihood of insurgencies perpetrating CRSV. Concluding, the study shows that there are structural causes that influence the behaviour of insurgencies in such a way that it increases the likelihood of them committing CRSV. It is these structural causes that explain why in some conflicts insurgencies do engage in CRSV and in others they do not. Although two structural causes are identified throughout this study, this does not mean that there are not more, as will be discussed in section 5.3.

This study has a number of theoretical implications. In a few respects, the findings of this study respond to the need for more structural cause-centred research within the field CRSV. First of all, knowledge about the structural causes that drive insurgencies to perpetrate CRSV is extended by identifying two structural causes that influence the likelihood of them perpetrating CRSV. This research also increases the theoretical understanding of how and why territorial control as well as extortion increases the likelihood of insurgencies committing CRSV. Furthermore, by identifying two structural causes that affect the behaviour of insurgent organisation, this also adds to the overall literature about insurgent behaviour. By using a quantitative dataset that comprised data of a significant amount of four different structural factors and three control variables, the generalisability of the results was increased. Additionally, the significant outcome not only added to the field of CRSV, but also to their own fields of civil war, rebel governance and greed vs. grievance research. The outcome of this research therefore contributed to CRSV, territorial as well as natural resources literature, as it points out that all these fields have an effect on the behaviour of insurgent organisations.

The outcome of this research has also some valuable practical implications for the field of CRSV in practice, as it helps to better understand the structural causes underlying CRSV and improve the response towards it. First, by identifying structural causes that increase the likelihood of insurgencies perpetrating CRSV, it gives a better understanding of when to expect CRSV to occur. As a result, it will be easier to respond to the situation accordingly, which might increase the successfulness of the overall state building after the conflict has ended. Additionally, it also increases the understanding on how to help people who find themselves in a situation in which the likelihood of CRSV is higher. Lastly, this thesis has identified two structural causes that have an effect on the occurrence of CRSV. However, more study into identifying these structural causes may strengthen our ability to intervene preventatively in the event of insurgencies possibly inflicting CRSV.

5.3 Limitations and suggestion for further research

This research contains several limitations which offer new opportunities for future research. The first limitation is the potential over and under reporting of CRSV victims. Scholars such as Cohen and Nordas (2014) argue that the estimation of the number of victims is a conservative number, assuming that many victims were either unable or unwilling to report. Reasons for this might have been fear of stigmatisation, shame, the fear of retributive violence, and the inability to reach authorities. Underreporting could also be the cause of victims and witnesses of CRSV not surviving the assault or the war in order to report the crime. Moreover, male victims represented less than one percent of the observations. CRSV against men is likely to be highly under-reported, for instance due to limited focus of NGOs and the policy community on male victims or due to the severe stigma associated with reporting male victims. However, there are also instances of overreporting. There are examples of cases where armed groups, victims, advocates and NGOs have sensed an advantage to exaggerating certain forms of violence in order to obtain aid or funds. These instances of under- and overreporting could serve as a starting point to find the real numbers of CRSV. Additionally, the severe underreporting of male victims could also be a starting point for further research.

The second limitation is the overall conceptualisation of all variables. For each variable a specific dataset is used, which has a specific way of measuring the variable. For example, our concept of territorial control does not include military bases, while other scholars might include military bases as territorial control. Additionally, the variables territorial control, extortion and smuggling are coded per year, meaning an insurgency might have used extortion one year but not the following year. This also might not be the case for other research, who have one value for extortion for the overall conflict. Therefore, an overall consensus for the measurement would be useful for further research.

A third limitation has to do with underreporting of extortion as well as smuggling. Both extortion as well as smuggling are illegal activities. This means that the people might not be upfront in reporting and partaking in these activities. Therefore, further research may benefit from more accurate numbers. Additionally, since there is a significant effect of extortion on insurgencies perpetrating CRSV. Further research could dive deeper into which natural resources increase the likelihood of CRSV, for example is there a difference between natural resources with longer production lines or natural resources that can be traded immediately.

The last limitation has to do with limitations in data. There is not a lot of data available of genocides, especially genocides perpetrated by insurgencies. As genocide are rare events, quantitative methods might not be the right method to find a relationship between CRSV and genocide. Therefore, further research could dive deeper into the relationship between CRSV while using other qualitative research methods.

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7. Appendix 1: Operationalisation

Variables	Indicators
Ordinal variant Prevalence Conflict Related Sexual Violence	The prevalence measure gives an estimate of the relative magnitude of sexual violence perpetration was by conflict actor in the particular year. (0) None – reports issued, but no mention of rape or other sexual violence related to the conflict. (1) Isolated – sexual violence is likely related to the conflict, but did not meet the requirements for a 2 or 3 coding and; - there were “reports”, “isolated reports” or “there continued to be reports” of occurrences of sexual violence. Note: a count of less than 25 reports of sexual violence indicates a prevalence code of one. (2) Numerous – sexual violence is likely related to conflict, but did not meet the requirements for a 3 coding, and: - Sexual violence was described as “widespread, “common”, “commonplace”, “extensive”, “frequent, “often”, “persistent”, “recurring”, “a pattern”, “common pattern, or “ spree” - Sexual violence occurred “commonly”, “frequently”, “in large numbers”, “periodically”, “regularly”, “routinely”, “widely”, or on a “number of occasions”, there were “many” or “numerous instances” Note: absent these or similar terms, a count of 25 – 999 reports of sexual violence indicates a prevalence code of two. (3) Massive – Sexual violence is likely related to the conflict, and: - Sexual violence was described as “systematic” or “massive” or “innumerable” - Actor used sexual violence as a “means of intimidation”, “instrument of control and punishment”, “weapon”, “tactic to terrorise the population”, “terror tactic”, “tool of war” on a “massive scale” Note: Absent these or similar terms, a count of 1000 or more reports of sexual violence indicates a prevalence code of three.
Binary Variant Prevalence Conflict Related Sexual Violence	The prevalence measured in binary categories. (0) None – there were no reports issued with mentions of rape or other sexual violence related to the conflict. (1) Did occur – rapports were issued mentioning rape or other sexual violence related to the conflict. Note: a count of one or more reports of sexual violence indicates a prevalence code of one.
Territorial control	The control of territory measured in binary categories. (0) Does not control territory – an insurgency does not control its own territory

	(1) Controls territory – an insurgencies control territory when; - Controls movement into, out of, or within a given territory. Territory may be controlled by threat or use of force or if the government grants the organisation the authority to do so. - Must be a substantial area (for instance, city, region, etc) not just occupying a building or a couple of building. Note: excludes military bases and checkpoints. - Must have control over the land for more than a few days.
Extortion	Extortion measured in binary categories. (0) No extortion (1) Extortion - the group uses violence or the threat of violence to earn money directly or indirectly from the production of natural resources. Extortion is an ongoing activity; it is not episodic.
Smuggling	Smuggling measured in binary categories. (0) No smuggling (1) Smuggling – the rebel groups earns income by directly engaging in or protecting those who smuggle natural resources illegally.
Genocide	Genocide measured in binary categories. (0) No genocide (1) Genocide – an attack is genocide when more than 25 noncombatants are killed directly during a given year with the aim of eliminating the organisation or frightening it by instilling fear that its existence is in danger.

8. Appendix 2: Tables

Table one: Little's MCAR test.

	Model one	Model two
Chi-square	0.000***	0.236
Degrees of freedom	0.000	1.000

**p* < 0.05, ***p* < 0.01, ****p* <0.001; (two-tailed)

Table two: Test of multicollinearity; tolerance and variance infatuation factor (VIF)

	Tolerance	VIF
Territorial control	0.887	1.128
Extortion	0.849	1.177
Smuggling	0.833	1.201
Genocide	0.995	1.005
Level of democracy	0.486	2.060
Intrastate conflict	0.900	1.111
GDP	0.529	1.889