

Original Study

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# Deterrence strategies for a small state: Analysis and survey

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**Abstract:** Classical deterrence theory has its origins in the era of the Cold War and the nuclear arms race between the USA and the Soviet Union. Therefore, deterrence is mainly studied from the perspective of the superpowers. This study approaches deterrence from the less explored perspective of a small country by analysing academic deterrence literature and further deepening this perspective by means of a survey. As a result, the study produced a new view of how a small state can be positioned in modern deterrence theories, by introducing national and international enabling and preventive factors. The main findings of the research suggest that national enabling factors, such as a strong national defence and the resilience of the society, are important for a small state in terms of compensating for the deficit in influence in relation to superpowers. Limited options for building deterrence can be augmented by means of international enabling factors, such as military and political alliances. Deficits in terms of available military resources and international status could translate into national preventive factors, such as weakness in the eyes of the aggressor. The aggressor's political intentions and history could appear as international preventive factors if they influence decision-making in an undesirable manner.

**Keywords:** deterrence, small state, deterrence strategy, Finland

## 1 Introduction

This study investigates the options for a small state when it comes to building deterrence. The topic is approached through the following research question: ‘Which deterrence strategies are suitable for a small state?’ To answer the question, academic literature is reviewed, theories are

selected to be explored in more detail and in-depth understanding is achieved by employing a survey targeted at Finnish military personnel. Finland is used as an example of a small state compared to its neighbour, Russia.

Deterrence theories emerged following the Second World War when the USA first demonstrated its nuclear capabilities in 1945 and the Soviet Union in 1949. This led to nuclear armament and the intense development of conventional armed forces, as well as a competition for supremacy between these two superpowers (Morgan 2003). Classical deterrence theory divides deterrence into deterrence by punishment and deterrence by denial. The idea of deterrence by punishment is to convince the opponent that aggression is followed by countermeasures. With deterrence by denial, a state signals that aggressions will not achieve the desired effects and that the costs of carrying out an aggression will be high. Most of today's deterrence theories are based on this fundamental division (Mazarr 2018).

Because of its origins, deterrence has naturally been investigated from the perspective of the superpowers. However, the global power structure during the Cold War has changed from bipolar to multipolar, other threats have arisen alongside state-centred ones, such as terrorism (Mazarr 2018), and original deterrence theory has proven to be too narrow when it comes to approaching today's threat environment (Zagare and Kilgour 2000). Therefore, deterrence strategies have become relevant for all states, regardless of their size.

With the development of technology, states can act against each other below the threshold of warfare (Bowers 2018) and affect an opponent's entire society, not just their military power (Mazarr et al. 2022). This change has also necessitated a re-examination of deterrence theories. Although classical deterrence theory includes the idea of force that is threatened but not used, such thinking is not optimal when it comes to, for example, the use of cyber capabilities. On the contrary, in order to increase the deterrent effect, it may in fact be more advantageous to carry out cyber operations than to refrain from actions (Smeets and Lin 2018). Cyber operations constitute a strategic

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weapon with relatively low costs (Faesen et al. 2022) and allow for asymmetric moves (Harknett and Smeets 2020), so that even a small state with fewer resources has, at least in theory, the potential to create credible deterrence.

In this study, deterrence theories are approached from a broad perspective, examining alternatives. Two assumptions, based on academic literature, are presented: (1) due to today's complex global relations and threat environment, it is not beneficial to draw a strict line between deterrence strategies and other strategies that protect the state's sovereignty (Wee 2014; Mazarr 2018; De Spiegeleire et al. 2020; Keršanskas 2020), (2) a small state must use all possible means to protect its own sovereignty, even if the possibility of their success is uncertain (Toomse 2015; Faesen et al. 2022). According to the first assumption, the literature review is not limited to the strict framework of classical deterrence theory, but rather alternatives are sought to meet the requirements of the modern threat environment and world politics. The second assumption directs the research's focus to the deterrence options for a small state and the possibilities and boundaries that must be considered when building deterrence.

'Small state' is a relative concept, and it should be investigated in relation to large states. At the core of the definition is the nature of a state's power, which can be understood as influence and autonomy (Goetschel 2000). Influence may be defined as actions taken that lead to a policy outcome for other states. Autonomy can be defined as the capacity to choose goals and pursue them independently. This capacity includes accessible resources, mobilised personnel and available funds (Paul 2000).

A small state can be defined, for example, based on quantitative measures, such as gross national product and population size (Radoman 2018). Another way to define a small state is to look at its relations with other states, such as international policy goals and the ability to influence other states. A small state has fewer opportunities than a large state as an international actor (Goetschel 2000). Therefore, it is beneficial for a small state to favour international cooperation in building security via common norms and security institutions (Coolsaet 2004), since it is more vulnerable to international security threats and has fewer options when it comes to mitigating them than its larger neighbours (Väyrynen 1997).

When looking at key quantitative figures, Finland ranks 9th for gross national product, 17th for population size and 6th for state surface area compared with other European Union (EU) countries. In light of these figures, Finland can be seen as a medium or even a large state (European Union 2022). However, compared with its

eastern neighbour, Russia, Finland is considered a small country with significantly fewer resources in terms of the above-mentioned indicators (Trading Economics 2023). Comparing the size and military experience of the armed forces, the result is similar. Finland's military expenditure is only 9% of Russia's (Trading Economics 2023), and whereas Finland last fought in the Second World War (Penttilä 1994), in the 21st century Russia has engaged in military conflicts in Georgia, Syria and Ukraine (Katz 2018).

How states see themselves as part of the global world order is also significant. Finland defines itself as a small country and strives to act as an active member of the EU (Ministry for Foreign Affairs of Finland 2020) and as a valuable member of NATO (Finnish Government 2023), just as Russia considers itself one of the great powers of the world (Minkina 2019). When looking at Finland's and Russia's publicised goals in international politics, as well as opportunities for influence and autonomy, Finland appears as a small country compared with Russia.

The main strategy guiding Finland's national security is based on the principles of deterrence by denial and aims to raise the threshold against a possible military aggression. This is achieved through the Concept of Comprehensive Security and comprehensive national defence. (Finnish Government 2021) The Concept of Comprehensive Security aims for building and sustaining resilience in Finnish society. The vital functions of society are safeguarded by authorities, businesses, organizations and citizens in accordance with their designated responsibilities (The Security Committee 2017). Comprehensive national defence encompasses all the national and international military and civilian efforts that secure the necessary conditions for military defence during times of crisis. (Finnish Government 2021).

## 2 Deterrence theories

Modern deterrence research appears as a disjointed set of theories that describe partially overlapping deterrence strategies in varying terms. Therefore, Mazarr's (2018) unifying perspective was chosen for this study, based on which deterrence strategies are examined. According to Mazarr, it is possible to approach deterrence strategy from different perspectives, by using temporal, location-based and force-based approaches. Mazarr divides deterrence strategies into four pairs, which are direct and extended deterrence, narrow and broad deterrence, general and immediate deterrence, and classical deterrence theory with deterrence through punishment and denial (Mazarr 2018).

In simple terms, deterrence can be understood as a strategy that discourages potential adversaries by clarifying that the costs of aggression would be greater than any potential gains. According to the classical deterrence theory, this can be accomplished in two ways: by limiting the benefits that the adversary might gain from aggression, known as deterrence by denial, or by imposing costs on the adversary, known as deterrence by punishment. Deterrence by denial involves having the credible military capability to prevent aggression effectively, which would serve as a strong deterrent. On the other hand, deterrence by punishment involves threatening to impose costs, such as through nuclear retaliation, which is considered the most extreme form of punishment. (Freedman 2013; Mazarr 2018).

Direct deterrence refers to a state's effort to prevent hostile activity on its own territory, whereas extended deterrence aims to prevent hostile activity on the territory of another state. The weakness of extended deterrence may be credibility. The threshold for a state to use, for example, military force to protect another state is higher than it is for the use of force to protect its own territorial sovereignty. Therefore, direct deterrence appears to be more credible (Mazarr 2018). On the other hand, for example, NATO's credibility is based on extended deterrence according to Article 5 (NATO 2022).

Morgan (2003) presents a parallel perspective on extended deterrence. Collective actor deterrence is understood as a common interest driven by either an international organisation or *ad hoc* cooperation (Morgan 2003). This approach also appears as multi-actor deterrence, which arises from the idea that '*the complex twenty-first-century threat environment includes multiple state and nonstate actors with conflicting and common interests, each with different strengths and weaknesses*' (Black and Obradovic 2022). An example of an international organisation promoting common security is the EU with its use of soft power, such as economic sanctions against Russia, or the United Nations, which seeks ways to reduce conflict and promote peace in the world.

In terms of timescale, deterrence can be treated as general or immediate. General deterrence consists of continuous actions aimed at convincing other states during peacetime that aggression is not worthwhile. Immediate deterrence, on the other hand, aims at specific actions against an identified threat when the situation is already in crisis. The weakness of immediate deterrence is that the threat actor may have already decided to attack and is not going to back down. The advantage of general deterrence, on the other hand, is that it is built over a long period of time and can create such a large threshold for engaging in

aggression that it is more favourable for the threat actor to refrain from action (Mazarr 2018).

NATO inserts between these two deterrence strategies a tailored deterrence that responds to a situation where a state is becoming a threat actor. Tailored deterrence signalling is aimed at this threat actor, persuading it to refrain from action with deterrence by denial. From the point of view of signalling, NATO communicates its operating principles to all states with general deterrence and it is above all about the images that NATO creates of its position as an organisation. Tailored deterrence is targeted at a specific state, but against broad threats. Immediate deterrence, on the other hand, is directed against identified threats posed by a specific state (NATO 2022).

When thinking about deterrence from a temporal perspective, the cumulative deterrence theory must also be considered alongside general and immediate deterrence strategies. Cumulative deterrence is based on countermeasures that are implemented over a long period of time and are used to try to shape the threat actor's behaviour. Cumulative deterrence is therefore not based on dissuasion or persuasion, but on actions to demonstrate that even low-level aggression will not be tolerated (Monaghan 2022). Cumulative deterrence can be thought of as being used, for example, against hybrid threats (Monaghan 2022), such as cyber operations (Tor 2017).

Deterrents can be thought of from both a broad and narrow perspective. Narrow deterrence relies purely on military force and nuclear weapons, if the state has them, while a broader perspective includes other instruments of state power, such as political and economic means, in the deterrence toolbox (Mazarr 2018). In addition to conventional armed force, a non-nuclear weapon state benefits from political alliances, which can be used to enhance diplomacy and economic sanctions in creating a deterrent effect (Wee 2014). In the literature on deterrence, narrow deterrence is usually divided into two separate perspectives: nuclear deterrence and conventional deterrence. Mueller (2021) defines the latter as the threat of conventional armed force against an armed attack. Thus, conventional deterrence excludes both nuclear weapons and soft power such as diplomacy and economic sanctions (Mueller 2021).

From the perspective of a small state, asymmetric deterrence theories (Arreguín-Toft et al. 2009) arise from wars where relatively smaller states defeat the stronger. Asymmetric deterrence is also referred to as unconventional (Rekasius 2005) or unorthodox (Azam 2019) in academic literature. Simply put, asymmetric deterrence occurs when a weak actor deters a strong actor (Azam 2019). This can be achieved by convincing the aggressor

that any action will be answered with unconventional defence (Arreguín-Toft et al. 2009), for example, guerrilla warfare (Arreguín-Toft 2005).

Broad deterrence is often referred as cross-domain deterrence (CDD) in modern deterrence literature. The basic idea of CDD is that a potential threat actor is convinced that aggression will be followed by a counter-measure consisting of one or more military capabilities (Lindsay and Gartzke 2019). Military capabilities can be used in any military domain, symmetrically or asymmetrically, against aggression. In a broader sense, CDD can include non-military elements, such as those enabled by politics, law and the information environment (Sweijs and Zilincik 2021).

In his research, Mazarr takes deterrence signalling further than classical deterrence theory when he proposes that deterrence can include not only warning but also offering benefits. In addition to warning, the state can offer inducements and assurance if a potential threat actor refrains from aggression (Mazarr 2018). Such an approach has been presented in deterrence research under the name positive deterrence, but it has not gained support due to a terminological conflict (Mueller 2021). Kerttunen (2019) revives positive deterrence in the context of cyber deterrence. Positive deterrence consists of rewards that are more tempting than an aggression. These rewards could take the form of cooperation or exchange of commodities when the aggressor refrains from unwanted actions (Kerttunen 2019).

While classical deterrence theory focuses on preventing the aggressor from acting, deterrence can be viewed more broadly as attempts to either prevent an action or to guide the aggressor to take another course of action that is less belligerent or even a neutral one. To achieve this, a combination of dissuasion and persuasion is used to convince the aggressor that there are options more desirable than the original plan (De Spiegeleire et al. 2020). This approach combines both positive and negative deterrence strategies.

Deterrence strategies can be combined with a state's political actions such as persuasion and dissuasion, offering inducements and assurance, as well as with concessions and compellence (Monaghan 2022). However, these would not be considered actual deterrence under a strict interpretation of deterrence theories (Mazarr 2018). It is practically difficult to distinguish the point, for example, at which deterrence signalling becomes coercion when the situation escalates.

As discussed above, most deterrence strategies can be divided using the division presented by Mazarr (2018).

In addition, the concepts of positive and negative deterrence were included as the fifth pair of strategies, where the positive approach means gaining advantages and the negative, losing them. These 10 deterrence strategies are presented in Table 1.

### 3 Research methods

The empirical part of the study consisted of a survey aimed at students of the General Staff Officer course of the Finnish Defence Forces (FDF). The object of the survey was to get an understanding of the suitable deterrence strategies for a small state by surveying students' opinions on the subject.

The group of respondents was chosen due to their professional experience. Students of the General Staff Officer course have typically served an average of 15 years in various leadership and expert positions when starting the course. Therefore, they represent a broad professional view in the FDF, including representatives of all of the branches and the Board Guard. The survey was scheduled for the spring of the second year of the course when the students had almost 2 years of studies behind them and a fresh view of the global political trends discussed in the course.

The theoretical basis of the survey consisted of a content analysis (Puusa and Juuti 2020), which examined modern deterrence theories in addition to classical deterrence theory. Mazarr's (2018) analysis formed categories of deterrence strategies, which were enriched by analysed deterrence literature. At this stage, the suitability of the strategies for a small state was not assessed.

In the survey, respondents were asked to evaluate the suitability of these strategies for a small state. The following presuppositions were established, which the respondents were asked to consider while answering:

- Finland belongs to the EU and NATO
- Finland has general conscription
- Finland has a Concept of Comprehensive Security
- The deterrence toolbox can include military, political and economic measures and measures enabled by law and the information environment.

The first three presuppositions described Finland's political situation at the beginning of April 2023. However, it should be noted that Finland joined NATO on the 4th of April 2023, a day after the survey (3rd of April 2023). Therefore, respondent's answers regarding Finland as a member of NATO are based on pre-existing ideas of such

**Tab. 1:** Deterrence strategies

| Deterrence strategy      | Explanation                                                                                                                                                                                                                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Deterrence by punishment | Deterrence by punishment refers to the state's effort to convince the threat actor that aggression will be met with a countermeasure of at least the same effect. (Freedman 2013; Mazarr 2018)                                                                                                                                            |
| Deterrence by denial     | Deterrence by denial refers to the state's effort to convince the threat actor that aggression will not achieve the desired effects, because, for example, the effect of the aggression will be less than intended or its costs will be higher than planned. (Freedman 2013; Mazarr 2018)                                                 |
| Direct deterrence        | Direct deterrence refers to the state's effort to convince the threat actor that aggression will be repelled. (Mazarr 2018; NATO 2022)                                                                                                                                                                                                    |
| Extended deterrence      | Extended deterrence refers to the state's effort to convince the threat actor that aggression against allies or partners will result in countermeasures by that state. (Morgan 2003; Mazarr 2018; Black and Obradovic 2022; NATO 2022)                                                                                                    |
| General deterrence       | General deterrence refers to continuous and systematic measures implemented by the state to respond to aggression under normal conditions. Preparation is not aimed at any specific threat. The state tries to convince the threat actors that they are ready to respond to aggression. (Tor 2017; Mazarr 2018; Monaghan 2022; NATO 2022) |
| Immediate deterrence     | Immediate deterrence refers to actions planned and implemented immediately against a threat that appears during a state crisis. During a crisis, the state tries to convince the threat actor that aggression will be responded to with immediate action. (Tor 2017; Mazarr 2018; Monaghan 2022; NATO 2022)                               |
| Narrow deterrence        | Narrow deterrence refers to the state's effort to convince the threat actor that they will be met with military force. (Arreguín-Toft et al. 2009; Mazarr 2018; Mueller 2021)                                                                                                                                                             |
| Broad deterrence         | Broad deterrence refers to the state's effort to convince the threat actor that aggression will be met with versatile measures. These include, e.g., military, political and economic measures and measures enabled by law and the information environment. (Wee 2014; Mazarr 2018; Lindsay and Gartzke 2019; Sweijs and Zilincik 2021)   |
| Positive deterrence      | Positive deterrence refers to the state's effort to offer the threat actor opportunities for cooperation and rewards when it refrains from aggression. (Mazarr 2018; Kerttunen 2019; De Spiegeleire et al. 2020; Mueller 2021)                                                                                                            |
| Negative deterrence      | Negative deterrence refers to the state's effort to convince the threat actor that aggression will result in a negative reaction and that the threat actor will lose, among other things, the benefits of cooperation. (De Spiegeleire et al. 2020; Monaghan 2022)                                                                        |

a membership. The last presupposition was established in order to elaborate on deterrence options besides military force. It should be noted that the first three presuppositions came up repeatedly in the open-ended answers. Therefore, there is a risk that the presuppositions influenced the open-ended answers. This risk was considered to be relatively low because the presuppositions only appeared on the first page of the survey and were not visible in connection with the questions. Also, respondents used varying expressions when describing these elements in their open-ended answers, which could indicate that they were based on their point of view rather than the presuppositions provided.

Answers were gathered via the open-source learning platform Moodle and analysed using the statistical analysis software IBM SPSS Statistics 25. The deterrence strategies and their explanations used in the survey are described in Table 1. For each option, respondents were asked to what extent the deterrence strategy in question is suitable for Finland.

The questionnaire was a Likert-type scale, which had 10 structured questions with five possible answers and 10 open-ended questions. The structured questions were obligatory and the open-ended questions were voluntary. After each structured question, the respondent was allowed to elaborate on the answer given with an open-ended question.

In each structured question, a deterrence option was briefly described and the respondent was asked to what extent the option is suitable for Finland. The response options for the structured questions were 1 = Not suitable at all, 2 = Somewhat unsuitable, 3 = In between, 4 = Somewhat suitable and 5 = Fully suitable.

The differences between Likert scale data and Likert-type data can be boiled down to one fundamental difference. The original Likert scale contains several items that together form the answer to the research question, while Likert-type data contains separate items that are not intended to be combined in the analysis phase. The Likert-type scale can utilise similar features to the original

version, for example, response alternatives (Boone and Boone 2012). Since this study intended to investigate deterrence possibilities, which can exist either alone or with other deterrence options, the choice to use Likert-type items instead of the Likert scale was justified. The analysis principles for Likert-type data produced a more accurate answer to the research question than the alternative.

Various options for analysing Likert scale data are discussed in the academic literature. Likert scale data and Likert-type data can often be treated as an ordinal measurement scale (Clason and Dormody 1994). The ordinal scale is characterised by the fact that the distance between scale values cannot be standardised, because the interpretation of the scale items depends on the individual. For example, when measuring opinions with a Likert-type scale, the distance between A and B can be greater than the distance between B and C or C and D. Therefore, for example, a mean is not the best way to describe the central tendency (Boone and Boone 2012).

When analysing ordinal scale data, it is recommended that you describe the central tendency with a median or mode, and variables can be described by investigating frequencies (Alkula et al. 1995; Heikkilä 2004). In this study, the focus was on measuring respondents' opinions about the suitability of each deterrent strategy for Finland, so both the median and mode were examined to form an understanding of the answers. The mode was used to find out which answer option contained the most observations and the median was used to find out how the observations were weighted towards the middle observation. The information provided by the quantitative data was supplemented with open-ended answers.

The open-ended answers were optional and not limited in terms of length. Approximately 68% of the respondents provided an open-ended answer. The answers were investigated using data-driven content analysis, which allows you to find similarities, differences and recurring themes in the investigated material. These can then be organised into categories and sub-categories to simplify the main findings from the data (Saunders et al. 2012).

Repeating themes were found during the content analysis, so they were categorised and their frequency in each question was measured numerically. With this examination, such emphases were found in the open-ended answers, which were used to explain the dispersion of the structured questions. After analysing the quantitative and qualitative data separately, the results were compared in order to gain a comprehensive understanding of the topic.

The reliability of the research can be assessed by looking at the sample size and the selected population, the response rate, the correlation of the answers and

possible measurement errors (Hirsjärvi et al. 2005). The population of this study consists of officers from diverse backgrounds, so the results represent a military view. The results could be different if the data was gathered, for example, from politicians.

Sixty-two people answered the survey, which is 81% of the group of respondents to whom the survey invitation was sent. The sample size can therefore be considered representative. Each phenomenon was measured with questions only once, so no correlation was calculated. Therefore, there is a risk of measurement errors and respondents misunderstanding a question. By examining the open-ended answers, it was possible to ensure that there were no indications for misunderstanding. The measurement errors were minimised by formulating the questions in the same way and using the same answer scale throughout the survey.

## 4 Results

Looking at the median and mode, from the quantitative data, three strategies were evaluated as the most suitable Finnish deterrence strategy, three as the least suitable and the remaining four deterrence strategies in between. There were differences in the variance of the responses. Respondents were the most unanimous about the deterrence strategies that were identified as Finland's deterrence strategies. Table 2 shows the statistics and Figure 1 presents the median and mode of the quantitative data.

During the first round of analysis of the open-ended answers, it was found that they form recurring themes for each deterrence strategy in the survey. Therefore, categories were formed from these themes, into which the open-ended answers were classified regarding each deterrence strategy.

The responses revealed factors that enable and prevent the use of deterrence strategies. These factors were categorised into international and national enabling and preventive factors. In addition, factors were found that the respondents considered to already exist in Finnish deterrence strategies. The international enabling factors were membership of NATO and the EU, including international cooperation. The national enabling factors were the Finnish Concept of Comprehensive Security and the comprehensive national defence.

National preventive factors were Finland's low level of influence as an international political actor and its deficit of resources, for which the majority of answers designated military resources. Russia was mentioned as a potential threat actor in several answers. Respondents pointed out that Russia implements its own international

Tab. 2: Statistics of the survey

| Deterrence type | Punishment | Denial | Direct | Extended | General | Immediate | Narrow | Broad | Positive | Negative |
|-----------------|------------|--------|--------|----------|---------|-----------|--------|-------|----------|----------|
| N Valid         | 62         | 62     | 62     | 62       | 62      | 62        | 62     | 62    | 62       | 62       |
| Missing         | 0          | 0      | 0      | 0        | 0       | 0         | 0      | 0     | 0        | 0        |
| Median          | 3.00       | 4.50   | 4.50   | 4.00     | 5.00    | 4.00      | 4.00   | 4.00  | 2.00     | 3.00     |
| Mode            | 4          | 5      | 5      | 4        | 5       | 4         | 4      | 4     | 1        | 2        |
| Variance        | 1.380      | 0.411  | 0.675  | 0.934    | 1.077   | 0.970     | 1.155  | 1.175 | 1.194    | 1.564    |
| Percentiles     |            |        |        |          |         |           |        |       |          |          |
| 25              | 2.00       | 4.00   | 4.00   | 3.75     | 4.00    | 3.00      | 3.00   | 3.00  | 1.00     | 2.00     |
| 50              | 3.00       | 4.50   | 4.50   | 4.00     | 5.00    | 4.00      | 4.00   | 4.00  | 2.00     | 3.00     |
| 75              | 4.00       | 5.00   | 5.00   | 5.00     | 5.00    | 4.00      | 4.25   | 5.00  | 3.00     | 4.00     |

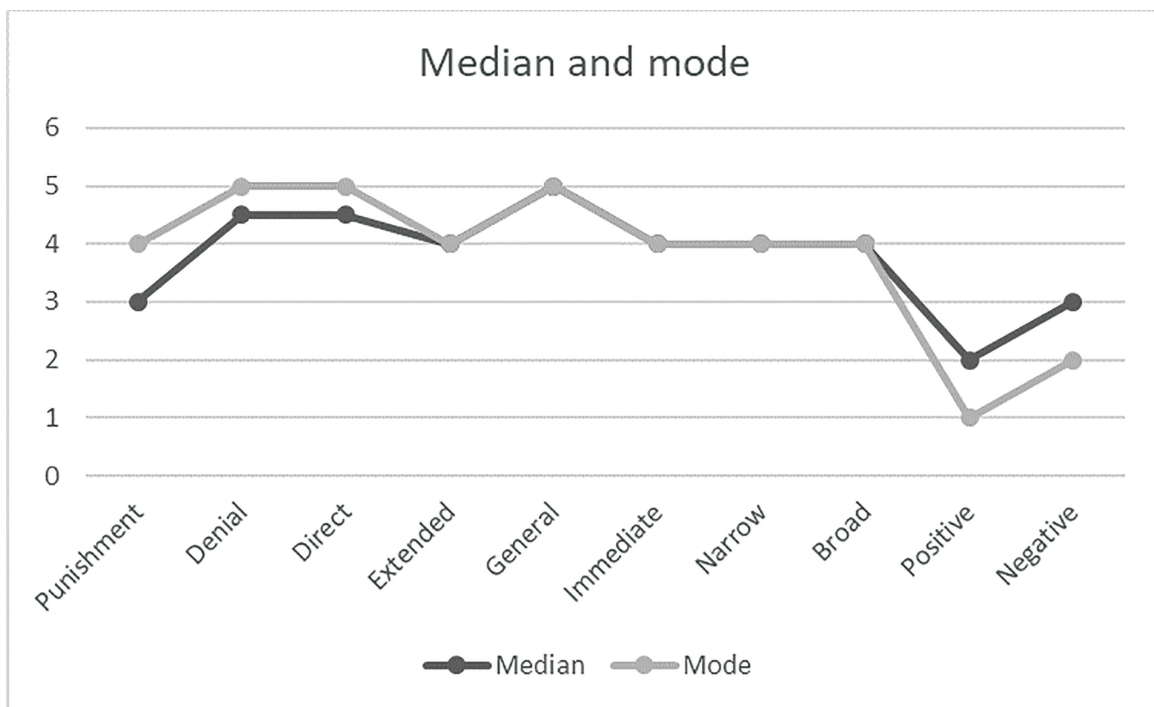


Fig. 1: The median and mode of the quantitative data.

policy with little concern for the opinions of the international community, as the attack on Ukraine proves.

The frequency of the defined factors in the responses was quantified in order to examine their relevance according to frequency and compared to quantitative data. The prevalence of the factors was analysed for each deterrence theory to find out which factors, according to the open-ended answers, were the most significant in the application of deterrence theory to Finland. These results are presented numerically in Table 3 and visually in Figure 2.

In Table 3, the deterrence theories are presented in descending order, so that the unit with the highest values in the quantitative analysis is first and the unit with the lowest is last. In the table, the two factors with the most open-ended answers are shown in bold in the rows.

According to the quantitative analysis, the respondents considered general deterrence, deterrence by denial and direct deterrence to be the most suitable for Finland compared to the other deterrence strategies. Therefore, these deterrence strategies were placed in field 1 in Figure 2. The placement of these strategies at the top end

Tab. 3: Prevalence of factors in open-ended answers

| Factors<br>Deterrence options | International<br>enabling factors |      | National enabling factors |                           | National preventive<br>factors    |                         | International<br>preventive<br>factors  |                                          | Uncategorised factors | Total |
|-------------------------------|-----------------------------------|------|---------------------------|---------------------------|-----------------------------------|-------------------------|-----------------------------------------|------------------------------------------|-----------------------|-------|
|                               | NATO                              | EU   | Existing model            | Comprehensive<br>security | National defence<br>and readiness | Limited armed<br>forces | Low status as an<br>international actor | Intentions of the<br>potential aggressor |                       |       |
| General (%)                   | 6                                 | 2    | 17                        | 29                        | 15                                | 4                       | 6                                       | 2                                        | 19                    | 100   |
| Denial (%)                    | 12                                | 0    | 33                        | 14                        | 18.5                              | 0                       | 0                                       | 6                                        | 16.5                  | 100   |
| Direct (%)                    | 35.0                              | 0    | 0                         | 12.5                      | 32.5                              | 10                      | 0                                       | 5                                        | 5                     | 100   |
| Extended (%)                  | 63                                | 9    | 0                         | 0                         | 0                                 | 9                       | 6.5                                     | 2                                        | 10.5                  | 100   |
| Broad (%)                     | 26                                | 20.5 | 1.5                       | 14                        | 5                                 | 1.5                     | 9                                       | 7                                        | 15.5                  | 100   |
| Narrow (%)                    | 21                                | 5    | 20                        | 5                         | 9                                 | 16                      | 5                                       | 0                                        | 19                    | 100   |
| Immediate (%)                 | 6                                 | 0    | 24                        | 6                         | 18.5                              | 24                      | 9                                       | 0                                        | 12.5                  | 100   |
| Punishment (%)                | 49                                | 0    | 4                         | 0                         | 0                                 | 23                      | 0                                       | 14                                       | 10                    | 100   |
| Negative (%)                  | 11                                | 9    | 0                         | 0                         | 0                                 | 0                       | 22                                      | 28                                       | 30                    | 100   |
| Positive (%)                  | 0                                 | 0    | 9                         | 0                         | 0                                 | 0                       | 12                                      | 22                                       | 57                    | 100   |

EU, European Union.

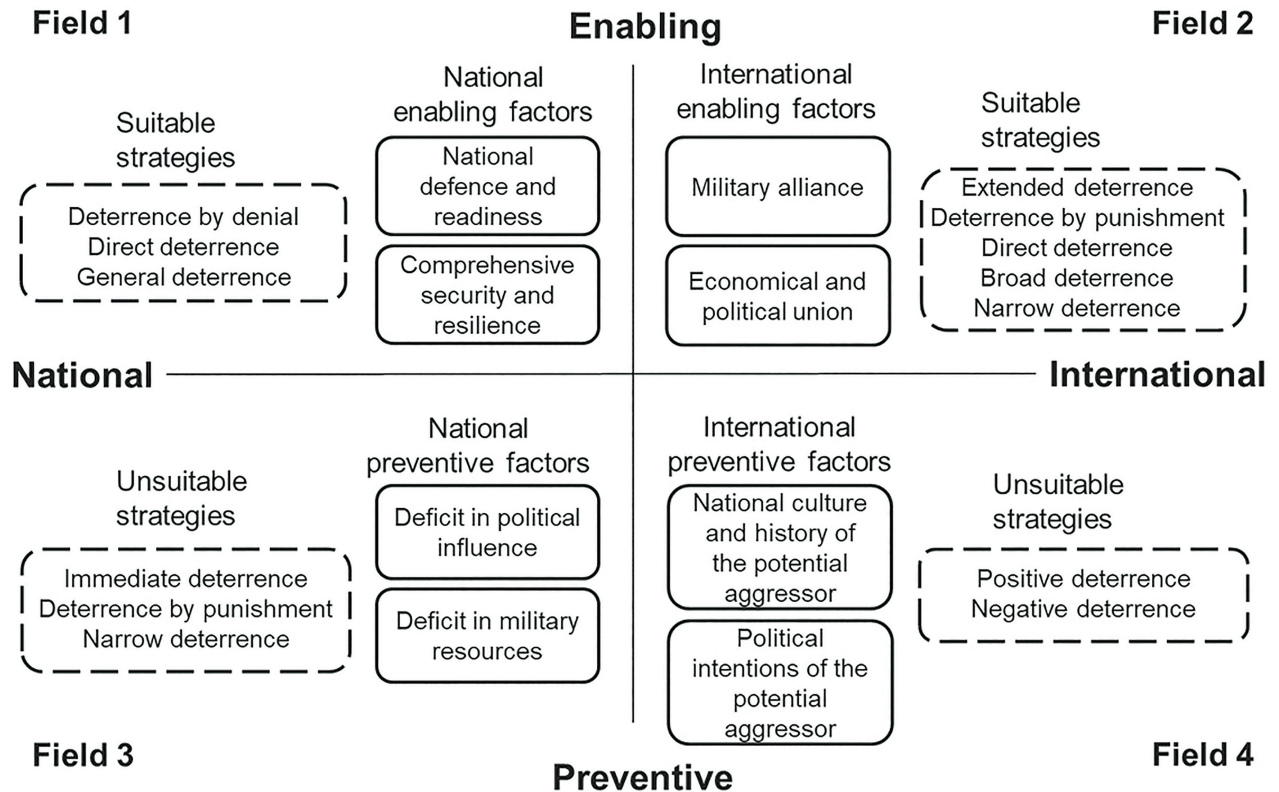


Fig. 2: Suitable and unsuitable deterrence strategies for a small state with enabling and preventive factors based on the analysis.

of the numerical analysis can be explained by the fact that the respondents recognised elements of them that already exist in Finland's security environment. About a third of the respondents mentioned prohibition deterrence as Finland's current deterrence model (33% of answers), general deterrence enabling the overall security model (29%) and total national defence as the cornerstone of direct deterrence (32.5%). On the other hand, NATO was mentioned to strengthen the credibility of direct deterrence (35%), so it was also placed in field 2.

International enabling factors appeared most often in extended and broad deterrence, as well as in deterrence by punishment, so these strategies were placed in field 2 in Figure 2. Extended deterrence was almost exclusively associated with NATO (63%). With broad deterrence, the answers were distributed between NATO (26%) and the EU (20.5%). The open-ended answers showed that it is not credible for Finland to implement deterrence by punishment on its own (23%), but that it is enabled by NATO and the alliance's armed forces, including nuclear weapons (49%). For this reason, deterrence by punishment was placed in field 2 and field 3 in Figure 2.

According to the quantitative analysis, positive and negative deterrence were assessed to be the least suitable as Finland's deterrence strategy. This can be explained by the respondents' comments that Finland has no bargaining chips vis-a-vis Russia (negative 22%, positive 12%) and that Russia makes political decisions regardless of international agreements (negative 28%, positive 22%). According to the respondents, Russia's political decision-making is strongly influenced by the country's history and national culture. Positive and negative deterrence strategies were placed in field 4 in Figure 2, because international preventive factors received the most weight in the open-ended answers.

Immediate deterrence divided respondents into two groups based on open-ended answers. This deterrence strategy was seen as an existing deterrence strategy (24%) based on the concept of national defence (18.5%), but the limitations of the armed forces were seen as a challenge to credibility (24%). Therefore, immediate deterrence was placed in field 3 in Figure 2.

Narrow deterrence was seen as divided in such a way that some of the respondents considered it to be an existing model in Finnish deterrence strategies (20%) and, on the other hand, it was seen as a possible strategy as part of NATO (21%), so it was placed in field 2. On the other hand, 16% of the respondents stated that narrow deterrence is implausible, because Finland's armed forces alone are too

small compared to Russia. Based on the answers, narrow deterrence is not credible as a deterrence strategy for a small state. For this reason, narrow deterrence was also placed in field 3 in Figure 2.

National and international enabling and preventive factors describe a small state's status in the international arena. These factors can be used as a guideline or a starting point, for example, when evaluating internal strengths and weaknesses as well as external opportunities and threats in the form of a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis (Pöyhönen 2018).

There are a few limitations to consider as regards the results of this study. Firstly, according to the research framework, the potential aggressor was a superpower with significantly greater influence and autonomy than the deterrer. When deterring states other than superpowers, there might be more deterrence strategies available for a small state. This study focussed on deterrence between states and excluded other potential threat actors such as criminals and terrorist organisations. The variety of deterrents is likely to differ when deterring actors other than another state.

Secondly, the survey was conducted a day before Finland became a member of NATO. Therefore, the respondents' opinions about NATO's influence on deterrence were not based on experience, but on images and expectations. If the survey were to be organised again in a few years, more factual details might appear in the answers related to NATO.

Thirdly, in order to generalise the research results, it is necessary to identify the Finnish national characteristics that appeared consistently in the open-ended answers. Finland shares over a 1,000 km common border with Russia. This geographical feature and the principle of defending the entire country have created the need for general conscription, which Finland has implemented throughout its independence (Kanniainen 2019). In Finland, there is also a high will to defend the country (Kanniainen 2019), which also signals the mental crisis resistance of the citizens.

Further, Finland has a Concept of Comprehensive Security and a model of comprehensive defence, which coordinates both the actions of the public and private sectors and the voluntary activities of citizens to maintain vital functions and protect the critical infrastructure of society in all situations (Riipinen 2008; Sanastokeskus 2017). In terms of generalising the results of this study, the state's international relations, principles regarding national defence and security and the threat created by a potential aggressor must be considered.

## 5 Conclusion

This research aimed to create an understanding of the options available to a small state as regards building successful deterrence. This was achieved by examining deterrence theories and using Finland as an example of a small state for a survey, held on the 3rd of April 2023. As a result, the study produced new insights into how a small state can be positioned in modern deterrence theories, by introducing enabling and preventive national and international factors. These factors can be used in future analyses when investigating a small state's status in international politics.

The key finding of the study is that if a small state has a credible ability to defend its own territory supported by the resilience of society, deterrence strategies aimed at minimising the impact of an attack in the state's own territory are the most suitable option. These national enabling factors are suitable for deterrence signalling even when the state is militarily non-aligned.

We can conclude by stating that there are only limited options available to a small state as regards building deterrence, but these options can be expanded by international enabling factors, such as military and political alliances. Deficits as regards available military resources and international status can become national preventive factors, such as weakness in the eyes of the aggressor. Also, the aggressors' political intentions and history could appear as international preventive factors, if they influence decision-making in an undesirable way.

The results of this study can be used in strategic research targeting small states, especially their deterrents and instruments of power. Since a state's behaviour and goals in international politics are influenced by its history, geopolitical location and national culture, there are differences in the deterrence strategies of small states. Therefore, investigating several small countries could complement the factors presented in this study and further deepen our understanding of the realistic deterrence strategy options available to a small state.

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