

LATIP 2021**International Conference on Language and Technology in the Interdisciplinary Paradigm****LINGUISTICS IN SECURITY STUDIES: CONTENT ANALYSIS OF
NUCLEAR DOCTRINES**

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Abstract

The paper is devoted to exploring the use of content analysis as a method of studying nuclear doctrines to uncover linguistics aspects of complicated, multi-layered documents. The described approach, originally developed within linguistics, has been extensively adopted in political science. However, there are few scholarly content analyses of nuclear doctrines, which indicates a lack of discourse around the subject. The interdisciplinary nature of such studies represents an opportunity to bridge the gap between the two fields. The definition of a nuclear doctrine and quantitative/qualitative iterations of the technique are described in this article. Case studies based on the examples of U.S., Russian and P.R.C. nuclear doctrines are presented. Based on the results, findings are provided regarding the advantages as well as the limitations of utilising content analysis for the given purpose. Among the former are the formalised language of the documents, the applicability of the method for all major IR schools of thought, and public availability of the corresponding software. Disadvantages include the dissimilar nature of the documents in different nations hindering the comparability, difficulties related with translation issues (which can yield unequal results from the same document analysed in varying languages), and obvious lack of transparency due to the sensitivity of the topic. Finally, recommendations are made for further academic research.

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1. Introduction

The interdisciplinary nature of nuclear non-proliferation and disarmament studies presupposes a need for combining efforts of experts in various fields, from engineering to international law. Indeed, this trend is quite prevalent in modern science, and uniting advances in different spheres, including adoption of the respective methodology and techniques (e.g. neural networks or Big Data), can be of great help to scholars.

This paper is devoted to assessing the underappreciated and undiscovered potential of using content analysis as a method pre-eminently developed within linguistics for the purpose of analysing nuclear doctrines in a comparative study. Advantages and limitations pertaining to this approach are to be closely scrutinised, and its applicability is to be demonstrated on certain case studies. Thus, the work also represents an attempt to bridge the gap between the two areas of science and demonstrate the possibilities of successfully adopting research procedures of an adjacent domain in security studies and international relations (IR) in general.

The theoretical premise may rightly remind a postmodernist understanding of international relations as a metatext. Indeed, the description of developments, countries' stances, and many other aspects of the international process are textual by nature. Deconstruction of these sources using semiotics and other corresponding studies presents one way to provide some insight into the complexities of global politics. In postmodernism, an immanent critical approach towards narratives in international relations assumes questioning the validity and consistency of traditional paradigms, such as neorealism (Devetak, 1999) and neoliberal institutionalism in the first place, as well as their capacity for explaining ongoing developments.

At the same time, such a technique enables a rational understanding of the realities presented in nuclear doctrines, as content analysis per se may be utilised within virtually any theoretical framework in the international studies. The data collected thanks to applying this method can be used as an argument for supporting certain IR theories or, vice versa, debunking research hypotheses.

As such, critical IR theories, which have already proved to be notably productive for scrutinising security issues, are no exception. The securitisation theory developed under the auspices of The Copenhagen School of International Relations, most notably by Buzan and Wæver, is also quite frequently employed in security studies. This theory is closely intertwined with the interpretation of speech acts (Herța, 2017). In this sense, content analysis can also represent a productive method for determining “securitising actors”, “referent objects”, “audience”, and “functional actors” (Floyd, 2020), which are indispensable categories for this framework.

There are a number of empirical IR studies containing content analyses of various datasets, cf. (Eriksson & Giacomello, 2014). Still, regardless of the vast accumulated experience in terms of employing this method for the purpose of scrutinising manifold dimensions of international relations, there still are certain lacunae to be filled, which is especially typical of security studies.

Indeed, experts in security studies and specifically nuclear non-proliferation demonstrated different approaches to the research methodology. For instance, comparison of India's and Pakistan's nuclear doctrines has been undertaken by a number of researchers, such as (Liebl, 2009; Latif, 2014). At

the same time, it should be mentioned that none of them specifically used content analysis as an investigation technique. One of the few examples of content analysis actually being applied to nuclear non-proliferation studies is that of Müller (2011) who utilised the method for unveiling the positions of global actors towards the U.S. administration's initiatives in the nuclear sphere under Obama at the 2010 NPT Review Conference. As such, an attempt at performing a content analysis of nuclear doctrines has not been yet undertaken in the scholarly literature. This predetermines both the topicality and scientific novelty of the given article.

2. Problem Statement

Before proceeding with the analysis itself, some of the theoretical aspects have to be established in advance. A significant undertaking to this end would be defining a nuclear doctrine. Curiously enough, in modern literature there is no single, unified definition of the term nuclear doctrines. Shankar and Paul consider nuclear doctrines to be a special case of military doctrines, quite correctly qualifying them as "state's theory of how best to produce security <...> using nuclear weapons" (Shankar & Paul, 2016, p. 3). While agreeing with this operational definition, for the purposes of this discussion, nuclear doctrines are understood as a complex of strategic documents containing a state's stance of norms and rules by which it intends to abide in declaring (and possibly practicing) its policy in the sphere of nuclear weapons.

As such, another objective is to determine the mentioned corpus of the corresponding texts to be analysed. So, the case studies method can be utilised to track down the documents related to nuclear doctrines per se. In this regard it is vital to comprehend the difference between the official nuclear weapons states (NWSs) and de facto nuclear weapons states. Not all of the latter are eager to formalise their possession of nuclear weapons and delivery vehicles: that is, Israel neither confirms nor denies the existence of its military nuclear programme.

In this article, an analysis is performed pertaining to nuclear doctrines of three of the more powerful nuclear weapons states, i.e. the United States of America, Russian Federation and People's Republic of China. The relationship between these major world powers has greatly influenced the global order in the modern period, and some scholars argue that they form a triangle (Mikheev, 2009) with a direct impact on security architecture in general.

3. Research Questions

The paper is aimed at answering a number of research questions listed below:

- What sampling of the documents within nuclear doctrines of various NWSs could be the most illustrative (given the comparability criterion)?
- What number of mentions of other states do the mentioned papers contain?
- What can the figures obtained thanks to the quantitative content analysis indicate?
- What are the objective advantages and limitations of using content analysis in security studies?
- How can the disadvantages be overcome in further research?

4. Purpose of the Study

The overall purpose of this article is to illustrate the potential of using quantitative content analysis for nuclear doctrines with the case studies which are consequently compared. The afore-referenced research questions are meant to assist in reaching this goal.

5. Research Methods

Since the current work is predominantly dedicated to methodology, it is necessary to set out the associated details. On the whole, scientists discern two major iterations of the method, precisely quantitative and qualitative content analysis. The former deals with figures (e.g. number of mentions of a keyword in the document), the latter having to do with the context of the terms under discussion (i.e. adjectives in concord etc.)

Apart from that, as a rule, content analysis presupposes resorting to specialised software, such as publicly available QDA Miner, which has a free version. This programme has been widely tested for international studies before (Neuendorf & Kumar, 2015).

Other methodological particularities concerning the process of analysis will be given below as and when necessitated.

6. Findings

To show the potential of content analysis for deconstructing nuclear doctrines and unveiling crucial trends in the sphere of international security, a comparative case study was conducted. In general, those are quite productive and rather widespread in political science.

In the following subsection it is vital to demonstrate what is understood by a nuclear doctrine in case of the three countries, granted the aforementioned simplification. The potential of the method will be uncovered with the analysis of cross-correlations, namely numbers of mentions of the counterparts in the most recent editions of the nuclear-related documents in the English language.

6.1. U.S.

The U.S. nuclear doctrine has traditionally been reflected in its Nuclear Posture Review, with its most recent edition in 2018. Previous versions of the same document were released in intervals of 8 years. Table 1 shows the impressive dynamics of mentions of the other two states in the two editions.

Table 1. U.S. Nuclear Posture Review

Edition/Number of mentions	Russia (and derivatives)	China (and derivatives)
2018	127	55
2010	88	37

6.2. Russian Federation

The entirety of Russia’s nuclear doctrine guidelines is rendered in Basic Principles of the State Policy of the Russian Federation on Nuclear Deterrence which was made publicly available in 2020. Still, it is the first paper of its kind, as traditionally there have been other major documents, Russia’s Military Doctrine (last updated in 2014) and National Security Strategy (2015) among them. Therefore, Table 2 represents somewhat scattered data with regards to Russia’s perception of other NWSs.

Table 2. Russia’s official documents

Edition/Number of mentions	The U.S. (and derivatives)	China (and derivatives)
Basic Principles on Nuclear Deterrence (2020)	0	0
National Security Strategy (2015)	6	3
Military Doctrine (2014)	0	1

6.3. China

China’s nuclear weapons programme and strategy is relatively closed by global standards, which makes it allegedly the least accessible to scholars. The basis of China’s nuclear doctrine is formed by the so-called White Papers, full texts of which are available in English. They are normally published biennially, with a few exceptions. Interestingly enough, the first edition was entitled “China: Arms Control and Disarmament”, which confirms the relevance of the chosen topic to China’s national security. The most up-to-date version is that of 2019. Still, relying on just figures could be quite deceptive since qualitatively Russia, being mentioned more frequently than U.S. in the 2019 edition, is mostly referred to in the context of military cooperation (Table 3). Another possible opportunity for discussion beyond the scope of this article, and a matter for further research could be analysing the dynamics of “no-first-use” as a key guiding principle of Chinese nuclear policy.

Table 3. China’s Defence White Papers

Edition/Number of mentions	The U.S. (and derivatives)	Russia (and derivatives)
2019	16	27
2015	2	2

As is clear from the data, with the lapse of time, documents tend to become more extensive, which can also explain the growing number of mentions in the tables. Dissemblance of the approaches employed by the three NWSs to forming their doctrines is striking: as the U.S. maintains a country-specific perspective in its vast and detailed papers, Russia tends to keep the number of mentions of other states minimal. China is, however, increasingly inclined to a closer concentration on other states.

6.4. Discussion

The formalised nature of the documents in question represents an important benefit for scholars, making the research problem solving process easier. This is linked to the necessity of providing correctly

formulated sentences since vaguely phrased or misinterpreted wording could potentially lead to catastrophic consequences in the region and the world. In theory multilingualism is without a doubt a valuable asset for a researcher in security studies, allowing one to delve into nuanced subtleties. Nevertheless, one of the daunting issues which can be encountered when dealing with respective documents in multiple languages is the lack of uniformity when it comes to terminology. Translation work is notoriously difficult. Among frequently cited examples of translation issues in nuclear documents are the terms “nuclear safety” and “nuclear security” which can be both translated into Russian as “ядерная безопасность” (in the latter case the term “физическая ядерная безопасность” has also been frequently used in the Russian literature). The same inconsistency is characteristic of the Spanish language: both terms are rendered into “la seguridad nuclear”. Another feature to be taken into account is a plethora of specific abbreviations, e.g. ICBM (Intercontinental Ballistic Missile) or NPT (Treaty on the Non-Proliferation of Nuclear Weapons), as well as acronyms, such as MIRV (Multiple Independently Targeted Reentry Vehicle) or START (Strategic Arms Reduction Treaty).

That being said, it would be thus safe to suggest that analysing the same paper in different languages would yield varying quantitative data. Therefore, it can be strongly advised to perform such an analysis in one language to avoid possible inconsistencies and discrepancies. Besides, a more successful approach in this regard would be performing a diachronic study of the same document in one country issued in various periods since the items under review will remain of one and the same order.

As to other limitations of the approach under consideration, unfortunately, content analysis does not allow one to define whether the theses contained in the nuclear doctrines will be abided by in the situation of an armed clash, let alone an actual nuclear conflict. Still, it would be admittedly interesting to compare language in nuclear doctrines versus a country’s level of aggression. Interpretation of the results obtained also depends not only on the linguistic subtleties characteristic of a certain language but also on the chosen theoretical basis.

One of the most important premises for conducting a comparative content analysis is the comparability of the studied objects. For example, the fact that the documents comprising Russia’s doctrine are of different orders can represent a challenge for interpreting the data correctly. At times such information could be painstaking to analyse due to dissimilarities in the format of the papers even in just one language.

In reference to the context of the problem under discussion, one also has to admit that the topic is quite sensitive in itself. Of course, there are difficulties with access to certain sources of information, which results in a limited analysis. Achievements of open diplomacy advocated by proponents of liberal school of thought do not seem to be applicable on that occasion, and the lack of transparency in the decision-making process manifests itself in the final versions of these documents.

Nonetheless, there is evidence that importance of the language in nuclear doctrines has not been lost to policymakers by the fact that they may informally seek advice from interpreters and linguists (Palazhchenko, 2019). Discovering sociocultural aspects of international communication with the application of the described methodology could be another direction of future investigations. Finally, the corresponding documents of de facto nuclear weapon states would also be worthy of comparison and further research.

7. Conclusion

The paper has unveiled some of the potential in terms of using content analysis for the purpose of studying nuclear doctrines. As is clear from literature review, the capacity of this approach is widely underestimated. Universality of the method for various theoretical frameworks has been effectively demonstrated. The case studies include official documents of the U.S., Russia and China. Pluses and minuses of utilising content analysis have been shown and discussed, along with the possibilities of future studies.

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