

the iafor

journal of politics, economics & law

Volume 4 – Issue 1 – Spring 2017

Editor: Craig Mark



ISSN: 2188-9562

iafor

IAFOR Journal of Politics, Economics & Law
Volume 4 – Issue I

IAFOR Publications

IAFOR Journal of Politics, Economics & Law

Editor

Craig Mark, Kyoritsu Women's University, Japan

Assistant Editor

Shazia Lateef, Macquarie University, Australia

Editorial Board

Jesse Olsen, University of Melbourne, Australia
Helen Pringle, University of New South Wales, Australia
Prajakta Khare, Okayama University, Japan

Published by The International Academic Forum (IAFOR), Japan

Executive Editor: Joseph Haldane

Editorial Assistance: Clare Midgley

IAFOR Publications

Sakae 1-16-26 – 201, Naka Ward, Aichi, Japan 460-0008

IAFOR Journal of Politics, Economics & Law

Volume 4 – Issue 1 – Spring 2017

Published May 31, 2017

IAFOR Publications © Copyright 2017

Individual articles are published under the
Creative Commons 4.0 Attribution Non Commercial International licence.

ISSN: 2188-9562

Online: ijpel.iafor.org

Cover image: Unsplash/Ricardo Gomez Angel

IAFOR Journal of Politics, Economics & Law

Volume 4 – Issue 1 – Spring 2017

Edited by Craig Mark

Table of Contents

Notes on Contributors	1
Introduction	2
The Evidentiary Value of Big Data Analysis Marco Pollanen & Bruce Cater	4
The Exclusion of the Taliban from Afghanistan's State-Building and Its Human Security Vulnerabilities Sajjad Ahmed	14
The Impact of Farmers' Resistance to Trade Liberalization: A Comparative Study on Political Process around FTAs in Korea and Japan Akio Nawakura	30
Victory in Cyberspace Miguel Alberto Gomez	40

Notes on Contributors

Dr Marco Pollanen is Professor of Mathematics and **Dr Bruce Cater** is Associate Professor of Economics at Trent University, Canada.

Sajjad Ahmed is a doctoral candidate at the Osaka School of International Public Policy, Osaka University, Japan.

Dr Akio Nawakura is Assistant Professor at the School of Political Science and Economics, Meiji University, Japan.

Dr Miguel Alberto Gomez is Senior Researcher at the Center for Security Studies, Swiss Federal Institute of Technology, Switzerland.

Introduction

Once again, I am fortunate to be able to introduce this issue of the *IAFOR Journal of Politics, Economics & Law*. Following a rigorously challenging selection process, the editorial team has selected a range of papers delivered at the most recent relevant series of IAFOR conferences, the Asian Conference on Politics, Economic and Law 2016, held in Kobe, and the Asia-Pacific Conference on Security & International Relations 2016, held in Osaka.

Since the publication of the previous volume last year, the field of Politics, Economics and Law has continued to see profoundly challenging issues develop internationally. These include: the ongoing growth of China, now promoting its “One Belt, One Road” infrastructure plan; the UK’s “Brexit” vote to leave the European Union; and the challenge of populist political movements in many countries, most controversially culminating in the election of US President Donald Trump.

Amid these dramatic events, as with previous volumes, this issue aims to achieve IAFOR’s objectives of promoting interdisciplinary research by scholars from a variety of backgrounds. The first paper is from Marco Pollanen and Bruce Cater of Trent University, Canada, and critiques the implications of the use of “big data” collection for law enforcement, particularly the risks involved in potential misuse of information.

The second paper, from Sajjad Ahmed, a doctoral candidate at Osaka University, Japan, examines the often-neglected, long-running war in Afghanistan, and the controversial prospect of involving the Taliban in diplomatic negotiations, to finally achieve peace.

The third paper, from Akio Nawakura, Assistant Professor at Meiji University, Japan, compares the fates of the Japanese and Korean farming lobbies in their efforts to influence the trade policies of their respective governments. The final paper, from Miguel Alberto Gomez, Senior Researcher at the Swiss Federal Institute of Technology, examines the implication of the use of cyberspace as a sphere for coercive operations.

Once again, sincere thanks goes to the contributors, the reviewers, the advisory board members, and the always diligent efforts of Assistant Editor Dr Shazia Lateef. Warm appreciation also goes to the IAFOR publication staff for their always professional assistance, and to the IAFOR Board for their ongoing support. I hope all readers will again find some enlightening and challenge reading in this issue.

Craig Mark
Editor

The Evidentiary Value of Big Data Analysis

Marco Pollanen & Bruce Cater
Trent University, Canada

Abstract

Big data is transforming the way governments provide security to, and justice for, their citizens. But it also has the potential to increase surveillance and government power. Indeed, information gathered from license plate recognition, mobile phone usage, biometric matches of DNA, facial recognition, financial transactions, and internet search history is increasingly allowing government agencies to search and cross-reference. The opportunity for big data searches then raises the question: what is the probative value of the information that results?

The scientific method begins with the development of a hypothesis that is then tested against data that will either support or refute the hypothesis. That method is essentially followed in a conventional criminal investigation in which, after a suspect is first identified, evidence is gathered to either build a case against, or rule out, that suspect.

The analysis of big data, by contrast, may at times be more akin to trawling for data first, only to subsequently define a hypothesis. In this paper, we investigate the conditions in which this approach may lead to problematic outcomes, including higher rates of false positives. We then sketch a big data analysis legal/policy framework that may address these problems.

Keywords: database searches, forensic science, big data analysis, criminal databases

Introduction

With the advent of smartphones, we may now leave in our wake a near-complete digital trail of our activities, from everything we search for and read online, to continuous location information, to a record of our interactions through social media and texting apps. Wearable technology is evolving in the direction of recording complete health and biometric information. Contactless transit cards, and arrays of video cameras coupled with improvements in facial recognition and license plate reading algorithms, allow our movements to be more accurately tracked. And cashless transactions allow every detail of purchases to be recorded.

At the same time, advances in computing and statistical analysis are increasingly allowing for the contents of these vast databases to be analyzed and for inferences to be drawn.

In the United States, dragnets – where large numbers of people are indiscriminately questioned or detained – are a violation of civil liberties and considered unconstitutional. Yet, in recent years, we have seen the growth of digital dragnets that provide law enforcement with access to ever-larger DNA databases, financial and communications records, and the results of widespread electronic surveillance. These dragnets are often justified by threats to security or rationalized as resulting in metadata only. What this paper will show, however, is that, regardless of how these searches are framed, the data they collect may lead to erroneous conclusions.

One feature of the scientific method is that a hypothesis is formulated *before* data are drawn to test that hypothesis. This feature is important because, without establishing a hypothesis first, it is easy to fall into the trap of data dredging, in which inadvertent patterns are uncovered and misleading conclusions are drawn. Indeed, it is for this reason that modern forensic investigations ideally follow a path that is characteristically much like the scientific method – a suspect is first identified (i.e., a hypothesis is first formed), then evidence to test that hypothesis is gathered.

Of course, the scientific method does vary, depending on the field to which it is applied. In laboratory experiments in physics, for example, repeated real-time observations of a phenomenon can be made and direct evidence can be obtained in abundance, whereas in a field such as paleontology, only scant indirect evidence of an event a long time ago is available. It follows that these fields must employ different mixtures of *inductive* and *deductive* reasoning.

Inductive reasoning involves a bottom-up approach, in which broad generalizations are formed from specific observations. Typically, observations and measurements are made until a pattern that is sufficiently clear is found, from which a tentative hypothesis is formed. Thereafter, the hypothesis is further tested and explored until a general conclusion or theory can be drawn. *Deductive* reasoning, by contrast, is a top-down approach, in which the analysis of observations serves to test a theory by testing hypotheses that arise from that theory.

Both approaches involve experiments that are designed to rule out hypotheses in a process known as falsification – a hypothesis or theory is always open to challenge, and it only gains credibility as the number of attempts to falsify it increases. And both approaches involve the formulation of a scientific hypothesis and the subsequent testing of that hypothesis.

In this paper, we will discuss the implications of deviating from that path. To introduce one type of problem that arises when hypotheses are not established first, we will begin by outlining

a well-known result from probability theory: the birthday paradox (Bloom, 1973). We will then illustrate something akin to the birthday paradox with real examples from DNA database matches. Finally, we will examine the problems that arise in the context of Big Data searches, and we will discuss potential solutions to those problems.

The Birthday Paradox

Suppose that, in a group of N people, each of the 365 possible birthdays is equally probable, ignoring leap years.

If $N = 2$, the probability that they share a birthday is $1/365 = 0.0027$ – that is, we could assign the first person any birthday, and the second person would have a $1/365$ chance of having the same birthday.

A question that naturally arises is: how large does N need to be for it to be likely that (at least) two of the people share a birthday? As it turns out, $N = 23$ is sufficient to give us a 50.7% probability that (at least) two of the people will share the same birthday. Many would see $N = 23$ as being a surprisingly small number.

When $N = 60$, there are fewer people than required to cover 1/6th of the birthdays. Yet, the probability that two of those people share the same birthday rises to 99.4%.

And when $N = 200$, the probability that at least two people share a birthday is an astounding 99.999999999999999999999998% – roughly equivalent to the probability of winning a multi-million-dollar jackpot in a lottery four times in a row – despite the fact there are only enough people to cover slightly over half (54%) of the birthdays.

The fact that these probabilities are so unimaginably high is referred to as the birthday problem or birthday paradox (Bloom 1973), not because it is a real paradox – after all, the reasons are well understood – but because it is an apparent paradox in the sense that it defies human intuition.

The birthday problem is relevant to our understanding of the effect that hypothesis formulation has on the validity of forensic discovery. To see this, consider the following cases:

Case I: Suppose a suspect has been first identified. Only thereafter is it determined whether she/he meets a key fact in the investigation. For example, his/her footprint must be of a certain size or he/she is excluded as a suspect. This is akin to asking the question: what is the probability that the birthday of a given individual matches the birthday of another particular individual in the group? The answer to that question, importantly, is independent of the number of individuals in the group; the hypothesis would be validated by random chance alone with a probability of only 1/365 or 0.27%.

Case II: Suppose a suspect has been identified first, but he/she only needs to match *some* fact in the investigation. This is akin to asking: what is the probability that the birthday of a given individual matches the birthday of any other individual in the group. The probability of this match happening by random chance alone grows as the number of people in the group does. For example, when $N = 2$ it is 0.27%, but when $N = 200$ it grows to 42%.

Case III: Suppose that no suspect has been identified and that there are no specific exclusionary criteria. Instead, the data are dredged through to find a hypothesis. In the case of birthdays, if $N=200$, a match will be found by random chance alone with a probability of 99.999999999999999999999999%, the implication being that the discovery of a match is of no evidentiary value whatsoever.

DNA Database Matches

In recent years, considerable controversy has arisen over the question of how to calculate the probability that a random DNA sample will match the profile of one found in a DNA database. Everyone does have a unique DNA, of course, but DNA databases typically only store a profile consisting of measurements from a fixed set of locations (or loci) on the chromosome. Typically, 9 to 13 independent loci are selected for the database, with two unrelated samples matching at a particular locus, with a probability of about 7.5%, making the odds that two random unrelated profiles will match at a fixed set of 9 (13) loci about 1 in 13 billion (1 in 420 trillion).

Statistical results from *The Arizona DNA Offender Database* (Kaye, 2009) have been particularly controversial. Of the 65,493 profiles in the *Database* at the time, 122 pairs were found to match at 9 loci, 20 at 10 loci, and 1 pair at each 11 and 12 loci. Many found those results to be astounding, for, as noted above, the probability of two random samples matching at 9 loci is about 1 in 13 billion, and at 12 loci about 1 in 32 trillion.

There are, however, several reasons why we would expect to see a large number of matches. The first is due to a sort of birthday paradox, as described above. The second reason is that, in the case of 9 loci, for example, the loci for which the matches occur could be different for different pairs of matches. From a set of 13 loci there are 715 different ways to choose 9 of them, so allowing partial matches increases the odds of a match by an additional factor of 715.

While these considerations do not fully explain the high number of matches, they do come close – for example, in the case of 9 loci, the expected number of matches would be 68, not 122 as were found. But, given the scale of the numbers being dealt with, that *is* fairly close, particularly given the crudeness of the genetic model in which it is assumed that all individuals are unrelated, and all loci are independent with equal probabilities of random matches. A more sophisticated analysis has been done by Mueller (2008).

One issue that arises immediately from DNA matches is that the science is relatively sophisticated and the odds of a random match can seem so overwhelmingly long that it seems possible to identify and convict a suspect by means of a DNA match only. But this is problematic if the match originated from a database search alone. A few cases are instructive.

In what was the first widely reported false match (Fowler, 2003) from a DNA database, a man in the United Kingdom was arrested for a burglary that occurred some 200 miles away and that involved the burglar climbing through a window. In that case, the only evidence was a match from a database search, which would occur with a probability of 1 in 37 million, corresponding to 6 loci. The only problem was that the man was severely disabled and incapable of committing the crime for which he was arrested – a fact that did not clear him.

With the population of the United Kingdom being 64 million, on average we would expect any 6-loci DNA profile to be shared by two people. But, by conducting a DNA database search, we

essentially trawled through millions of hypotheses to fit the evidence, violating the first tenet of the scientific method – that we must first have a hypothesis. This illustrates what is known as the prosecutor's fallacy (Thompson & Shumann, 1987), in which investigations and prosecutions revolve around a probability of match. The correct interpretation is that if the suspect is innocent, there is a 1 in 37 million chance that there is a match. However, with the prosecutor's fallacy, the clauses are reversed and the logically incorrect interpretation is adopted – if the DNA matches, there is a 1 in 37 million chance that the suspect is innocent.

It is not just investigators and prosecutors who incorrectly weigh DNA evidence. A 30-year old cold-case (Murphy, 2015) facilitated the analysis of partial matches in the Arizona DNA database. The defendant in that case was identified and convicted largely due to the partial match of the badly degraded DNA sample to a profile found in a California database. The judge allowed only the prosecution's statistic that the chance that an individual picked at random would match the crime-scene DNA was 1 in 1.1 million. Jurors were not informed that the match was a result of a database trawl, whereby 9-loci partial matches are not uncommon, nor were they informed that about 40 people in California would be expected to have a profile that matches the crime-scene sample. The fact that a partial match was used is not uncommon, as crime scene evidence can be degraded and mixtures of DNA samples can result. Furthermore, different databases often use different loci for profiles, and searches can be done using the profiles of close relatives.

A further problem with assigning astronomical odds to a single piece of evidence, such as a DNA database match, is that those probabilities would be dwarfed by real-life considerations, such as laboratory errors and contamination. For example, a man in Australia was convicted of raping a woman found unconscious at a nightclub based solely on a random match in the Australian DNA database (Roberts & Hunter, 2012), despite other evidence suggesting that the individual could not possibly be a suspect. Only through post-conviction serendipity was it discovered that the original rape-kit was likely contaminated at the laboratory, leaving no clear evidence that a crime even took place.

Even when evidence is found at the crime-scene and it is correctly attributed to an individual, the relevance of the sample to the crime must be established. Typically, DNA establishes, at most, the presence of or contact with an individual, not that they committed a crime. In another case, a man in the United Kingdom (Barnes, 2012) was jailed for eight months when a partial match was found between his DNA profile in a database and a crime-scene sample from a murder scene. It has been suggested that because the suspect was a taxi driver, he likely came into contact with the victim individual and some of his shed skin cells clung to that person.

While there are potential pitfalls in interpreting DNA evidence, especially when it comes from random matches found by trawling through databases, it is important to note that DNA evidence is still some of the most reliable types of evidence there is, and that it has likely lead to the exoneration of more people far more often than it has resulted in false convictions. By comparison, while identification by eyewitnesses carries a lot of weight in courts, studies have shown how utterly unreliable eyewitness testimony can be (National Research Council Report, 2014). We introduced the issues with the *Arizona DNA Offender Database* to demonstrate how the birthday problem arises in criminal investigations.

In the next section we will discuss how these problems might be amplified as the number and type of databases used in forensic investigations increases.

Big Data Searches

In recent years, aided by technological advances, and often rationalized as necessary to fight terrorism, mass surveillance has been increasing. In the US, for example, metadata for hundreds of billions of telephone calls has been collected (Cauley, 2006); the exterior of all letter mail is photographed (Miga, 2013); databases containing information on financial transactions, e-mails, and internet surfing habits are maintained; and social media are monitored (Kawamoto, 2006). The FBI has a face-recognition system with a database of over 400 million photos (Kelley, 2016). Combined with the ever-increasing array of CCTV cameras, it may be possible to recognize individuals in any public location. In the United Kingdom, there are up to 6 million CCTV cameras (Barrett, 2013) – about one for every 11 individuals. Location information can also be obtained from license plate recognition or from databases of transit card usage.

In addition to government databases, private companies such as Google and Facebook have access to vast amounts of information about individuals, except where one exerts considerable effort to maintain their privacy. This is especially true due to the near ubiquitous use of smartphones, which potentially provide details of the contents of every digital communication one partakes in, and to one's location history; they can map one's photographs, social connections, and browsing and search histories; and they can potentially track health and biometric information through a phone's sensors. This information is also available to governments seeking to increase surveillance.

The average individual leaves a vast digital trail throughout their day, from which it may be possible to surmise when he/she woke up and how long they slept, their location throughout the day, including where they work, where they shop, and what they bought, read, or wrote. By combining the available information with information from biometric sensors in smartphones or wearable devices, it may be possible to develop algorithms to give an idea of what an individual thought and felt throughout the day or to predict behavior.

While all of this information can be a boon for law enforcement in their quest to solve crimes, the growing number and size of databases also have the potential to lead to an increase in the number of falsely accused individuals. To see this, consider a DNA database in which an individual profile will typically contain information regarding 13 loci. This would be equivalent to an individual having a record in 13 different databases, each containing the information of a single loci. Thus searching through multiple databases of digital information would also be subject to the Birthday Paradox as we have seen with DNA. Moreover, when an individual matches information in only some databases but not others, this further magnifies the problem of false identifications from partial DNA matches have been shown to have with the Arizona DNA database.

While there are many similarities with searching through digital information databases and DNA databases, there are causes for greater concern. DNA analysis occurs in a laboratory setting, and while the measurements have errors associated with them, they can be estimated. Laboratory errors do occur, of course, but it is still a scientific setting where one would believe every attempt would be made to estimate and minimize these errors. On the other hand, analysis of databases of other digital records might involve information that was not originally intended for forensic examination, such as facial recognition on grainy photos or the inaccuracies of finding the location of a mobile phone user. These errors may be poorly understood and might contribute significantly to birthday paradox collisions. Furthermore, DNA analysis involves trying to match a set number of loci, while a trawl through digital data may involve an unknown

number of databases and is problematic because the probability of a match would be incalculable. We have seen that partial matches of only some loci significantly increase the chance of misidentification with DNA databases, but in that case we know which loci cannot be matched and probabilities could be adjusted accordingly. It would be even more problematic if the databases investigated were not known or revealed. For example, suppose while in an investigation, all Google searches for a particular explosive were flagged. If a suspect had searched for that particular compound, that would certainly be used to build the case against him or her. On the other hand, if the suspect was *not* one of the individuals who had made that particular search, that fact might not be factored into the calculation of their probable guilt and it would almost certainly be inadmissible in court.

The concern with searching through a large number of databases for suspects that could fit the evidence of a crime is, of course, that people may be falsely accused. But with such an overwhelming amount of circumstantial evidence pointing to them, it could be difficult to exonerate them. For example, perhaps a murder has been committed, and by pure chance alone an individual is found whose license plate was caught driving nearby at a similar time, traces of whose DNA are found on the murder victim (perhaps because they ate at the same restaurant), and perhaps the day before they bought the same brand of duct tape used in the crime. As technology and pattern recognition algorithms get better, it is likely that even more casual links in vast arrays of data will be found.

Discussion

Databases are important tools for fighting crime and protecting national security. Indeed, as criminals become more sophisticated in their use of technology, there is arguably a need for law enforcement to do the same. A significant problem arises, however, because trawling through a database without a suspect in mind – essentially in violation of the scientific method – may result in erroneous conclusions. A primary goal, then, should be to put these searches on a more scientific footing.

There is not necessarily a singular scientific method due the variety of very different scientific disciplines. Likewise, no singular definition might be easily developed for Big Data analysis, as there are so many different reasons for database searches. For example, the needs of an investigator trying to solve a crime that occurred in the past might be different from those of an agency looking for patterns in data to prevent a future terrorist attack. In any case, however, to be scientific, it is necessary for a hypothesis to first be formed. One obvious way to achieve this would be to use a database for identifying a suspect (i.e., formulating a hypothesis), and then to use only further evidence gathered from other sources for the purposes of prosecuting. A second possible approach would involve (perhaps randomly) separating a list of all available databases into two parts. From one part, a suspect could be identified, while, from the second part, searches could be conducted to build a case against that suspect. Of course, many would object to either approach, for they would be seen as leaving evidence unused.

It is also important to understand the statistical characteristics of many of the key databases used in order to understand their scope and potential inaccuracies. This would be important for assigning a probability of a match for use in the legal system. Many of the examples in this paper were drawn from criminal cases involving DNA databases, not because these cases are reflective of the only context in which the issues discussed will arise, but because they are the only concrete examples that have, to date, been subjected to some legal scrutiny. By contrast, although it has been widely reported (Press, 2012) that counterterrorism efforts involve mining

social media to predict terrorist attacks, it would, at this stage, be a formidable task to assign the probability of a random mismatch in those circumstances. Even for a computer to search human language to find an initial match requires cutting-edge computational linguistic models that are in their research infancy. Furthermore, there is no fixed database that exists at a moment in time that can be searched again at a later date – rather, the information content on social media is constantly in flux. Even when a database is government-maintained, it may be fraught with problems – for example, in the US there many anecdotal reports of misidentifications due to coincidental mismatches of identities on the no-fly list (Kreig, 2015) and department of motor vehicle records (Davis, 2017).

It would also be important to study frequently-used databases to understand the potential for misidentification. In the case of DNA, of course, law enforcement agencies have fought access by researchers to study random match probabilities (Kaye, 2009). Yet, potential violations of privacy could easily be circumvented by, say, scrambling or encrypting the data in some way to avoid identifying individuals, without compromising the ability of researchers to analyze key characteristics of the data. In order to make investigations more scientific, it is important to carefully document all database searches included in the hunt for a suspect – even those searches that lead to negative results. For these purposes, the development of a standardized set of databases and search criteria would be appropriate.

Conclusion

Governments and law enforcement agencies increasingly have access to vast amounts of electronic data that can be searched to identify a suspect or a potential crime. This fact has received a great deal of attention in the literature from those concerned about the privacy implications. The potential for coincidental mismatches, however, has not been explored.

In this paper, we have shown that as the databases grow, the potential for random mismatches may grow exponentially if searches are not done in a way that is consistent with the scientific method. A simple strategy to avoid this problem would be to split datasets in such a way that a part of the data is used to identify a suspect and effectively form a hypothesis, while the remaining parts of the database are used to test that hypothesis. Ultimately, however, more research is required in this area to model potential database searches so as to more fully understand the full extent of the problem.

References

- Barrett, D. (2013, July 10). One surveillance camera for every 11 people in Britain, says CCTV survey. *The Telegraph*. Retrieved September 7, 2016, from <http://www.telegraph.co.uk/technology/10172298/One-surveillance-camera-for-every-11-people-in-Britain-says-CCTV-survey.html>
- Barnes, H. (2012, August 31). DNA test jailed innocent man for murder. BBC News. Retrieved September 6, 2016, from <http://www.bbc.com/news/science-environment-19412819>
- Bloom, D. (1973). A Birthday Problem. *American Mathematical Monthly* 80, 1141–1142.
- Cauley, L. (2006, May 11). Advertisement NSA has massive database of Americans' phone calls. *USA Today*. Retrieved September 7, 2016, from http://usatoday30.usatoday.com/news/washington/2006-05-10-nsa_x.htm
- Davis, L. S. (2017, April 3). For 18 years, I thought she was stealing my identity. Until I found her. Retrieved April 26, 2017, from <https://www.theguardian.com/us-news/2017/apr/03/identity-theft-racial-justice>
- Fowler, R. (2003, April 27). DNA, the second revolution. *The Guardian*. Retrieved September 5, 2016, from <https://www.theguardian.com/uk/2003/apr/27/ukcrime7>
- Kaye, D. H. (2009). Trawling DNA Databases for Partial Matches: What Is the FBI Afraid Of? *Cornell Journal of Law and Public Policy*, 19(1).
- Kawamoto, D. (2006, June 9). Is the NSA reading your MySpace profile? CNET. Retrieved September 7, 2016, from http://archive.is/20120720043006/http://news.com.com/2061-10789_3-6082047.html#selection-925.5-929.1
- Kelly, H. (2016, June 16). FBI's face-recognition system searches 411 million photos. CNN Money. Retrieved September 7, 2016, from <http://money.cnn.com/2016/06/16/technology/fbi-facial-recognition>
- Krieg, G. (2015, December 7). No-fly list nightmares: The program's most embarrassing mistakes. Retrieved April 26, 2017, from <http://www.cnn.com/2015/12/07/politics/no-fly-mistakes-cat-stevens-ted-kennedy-john-lewis>
- Miga, A. A. (2013, August 2). AP Interview: USPS takes photos of all mail. AP Online. Retrieved September 7, 2016, from http://www.highbeam.com/doc/1A1-10eae68abcc8439fa78610fe561ab6fc.html?refid=easy_hf
- Mueller, L. D. (2008). Can simple population genetic models reconcile partial match frequencies observed in large forensic databases? *Journal of Genetics*, 87(2), 101–108. <https://doi.org/10.1007/s12041-008-0016-4>
- Murphy, E. E. (2015, October 8). The Dark Side of DNA Databases. *The Atlantic*. Retrieved September 6, 2016, from <http://www.theatlantic.com/science/archive/2015/10/the-dark-side-of-dna-databases/408709/>
- National Research Council of the National Academies. (2014). *Identifying the culprit: Assessing eyewitness identification*. Washington, D.C.: National Academies Press.
- Press, T. A. (2012, February 13). FBI seeks social media data mining tool. Retrieved April 26, 2017, from <http://www.cbc.ca/news/technology/fbi-seeks-social-media-data-mining-tool-1.1221437>
- Roberts, P., & Hunter, J. (Eds.). (2012). *Criminal evidence and human rights: Reimagining common law procedural traditions*. Bloomsbury Publishing.
- Thompson, E. L., & Shumann, E. L. (1987). Interpretation of statistical evidence in criminal trials: The prosecutor's fallacy and the defense attorney's fallacy. *Law and Human Behavior*, 2(3). <https://doi.org/10.1007/BF01044641>

Corresponding author: Marco Pollanen

Contact email: marcopollanen@trentu.ca

The Exclusion of the Taliban from Afghanistan's State-Building and Its Human Security Vulnerabilities

Sajjad Ahmed

Osaka School of International Public Policy (OSIPP), Osaka University, Japan

Abstract

This paper discusses the impact of the Taliban's exclusion from both Bonn Conferences (2001 and 2011) on Afghanistan's state-building process and prolonged humanitarian disaster consequences. It outlines the current challenges facing the democratic institutions of Afghanistan due to the non-recognition and exclusionist policies adopted by the United States and its partner forces. It reviews the background to these challenges focusing on an interpretive framework and ripeness theoretical tool for conflict analysis to examine and analyze the impact of marginalization of Taliban on them. It also focuses on the overall political dynamics of protracted Afghan war. By developing an understanding of the dynamics of the issue, it endeavors to find an elucidation for this prolonged exclusion of the Taliban and long lasting human massacres along with its domestic and fast-paced adverse impact on regional and global polity. Lastly, this study endorses the need of negotiation and peace talks among confronting parties in order to offset the ongoing human atrocities in Afghanistan.

Keywords: Afghanistan, Bonn, conferences, exclusion, marginalization, Taliban, United States

1 Introduction

The people of Afghanistan have suffered for the last quarter of century due to civil war and external military interventions. The devastation by the conflicts has resulted in the collapse of government including physical, economic, and administrative infrastructure across the country. After the fall of the Taliban in 2001, a conference held in Bonn paved the way for an accord for creation of a post-Taliban administration in Afghanistan. The Bonn Agreement, that followed, aimed, as it stated, to “end the tragic conflict in Afghanistan and promote national reconciliation, lasting peace, stability and respect for human rights in the country”. Ironically, two major conferences at Bonn (2001 and 2011), along with the other seven international conferences on Afghanistan could not bring a lasting peace and stability in the country.

Evidently, Afghanistan is still far from reaching the commitments and benchmarks set in Bonn Accord (2001) fifteen years ago. The current development of enduring reconstruction and state-building in Afghanistan has been seriously questioned by academics, policy-makers, and experts on Afghanistan. Therefore, this paper purports to focus, through the lens of an interpretive framework for conflict analysis, on examining and explaining the real perspective and dynamics of the conflict. In addition, the paper under a qualitative research principle uses the *ripeness theory* by William Zartman as a yard stick and cautions that how exclusion of a major stakeholder (Taliban) of the Afghan conflict affect the peace process and state-building in Afghanistan. The advocates of *ripeness theory* believe that when fighting parties are locked into a conflict that is mutually painful and both believe that they cannot escalate to victory, the prospects for a negotiated outcome improve significantly. To assess whether or not a “mutually hurting stalemate” exists in Afghanistan it is important to consider the conflict conditions and then the parties’ perception of those conditions.

This paper therefore sets out two comprehensive hypotheses that will be tested: hypothesis one is that “the United States and its coalition forces misperceived the imperatives of stability in Afghanistan”, and hypothesis two is that “exclusion of the Taliban from the Bonn Conference sowed the first seeds of long lasting insurgency and re-emergence of the Taliban”. In fact, this paper is an attempt to explore the effects of the Taliban’s exclusion from the negotiations and peace process and to assess the impact/challenges of their exclusion to the current state-building in Afghanistan. In addition, this paper pays attention to the contexts, characteristics, and complexities of these peace processes and their possible consequences in both scenarios of inclusion and exclusion of the Taliban. Specifically, the purpose of this current study is to address the question: how does the exclusion of Taliban affect Afghanistan’s state-building and human security? In addition, it identifies the opportunities and obstacles (difficulties) generated by Afghanistan’s transition to peace, stability and nation building after decades of state failure.

2 Background of the Study

2.1 History and Demography of Afghanistan at a Glance

Historically, Afghanistan has proven to be the “graveyard of empires”, where many empires flourished and got demolished on its land. Since the earlier times, the country has been under the formidable influence of Persians, Arabs, Turks, and Mongols from time to time. Afghanistan also became a battleground between Britain and Russia in the 19th century. On the land of Afghanistan three Anglo-Afghan wars, in 1839 to 1842, 1878 to 1880, and 1919 did not end conclusively (Runion, 2007). However, this war against Britain was not the last war for the Afghan people, and in early 1980 the Soviet Union occupied Afghanistan. Later, the

Soviet army forced had to leave (or left) Afghanistan on February 15, 1989. Subsequently, the people paid a huge cost to fight against the Soviet, but unfortunately, war never ended until December 2001 (Rashid, 2002).

Being a landlocked country, Afghanistan's total land is 652,230 square kilometers (km). It shares borders with China (76 km), Iran (936 km), Pakistan (2,430 km), Tajikistan (1,206 km), Turkmenistan (744 km), Uzbekistan (137 km). Ethnically, it has a diverse demography and the largest ethnic group in Afghanistan is the Pashtun (including Kuchis), comprising 42% of Afghans from the estimated population of 32.5 million. The Tajiks are the second largest ethnic group, at 27% of the population, followed by the Hazaras at 9%, Uzbeks at 9%, Aimaq at 4%, Turkmen at 3%, Baluch at 2%, and other groups that make up 4% (CIA, 2016).

2.2 The Collapse of the Taliban Regime

The Taliban are ethnically Pashtuns and they belong to half the population of Afghanistan. By 1999, they controlled most of Afghanistan, apart from some areas in the north, without having any experience to run government institutions. They lost international support as it imposed self-interpreted strict Islamic customs in areas it controlled and employed harsh punishments, including executions, bans on television, Western music, and dancing. It prohibited women from attending school or working outside the home, except in health care, and it publicly executed some women for adultery (Katzman, 2015, p. 5). This policy of violence and their close ties with Al Qaeda, Taliban gained limited acceptance and recognition at the international level (Gilles, 2005). However, the Taliban's hosting of Al Qaeda's leadership gradually became the U.S. overriding agenda item with the Taliban and caused Taliban to step down forcefully by the U.S. after the September 11 terrorist attacks. When the coalition forces overthrew the Taliban in December 2001, it continued to fight the international presence and, subsequently, the new regime (Shultz & Dew, 2006).

2.3 The Post-Taliban Developments

When the defeat of the Taliban was imminent, a conference was organized in Bonn on December 5, 2001. The UN sponsored Bonn Conference brought together the "winner" of the war to discuss how the new Afghanistan should be governed without the "losers" Taliban. It was the beginning of a long and complex international military engagement in Afghanistan, which has evolved over time. Since then, the Taliban have been fighting with the aim of overthrowing the government and forcing the international presence out of Afghanistan (Sinno, 2008, p. 255).

According to Table 1 (data from Watson Institute for International and Public Affairs, 2015) around 23,470 civilians have been killed in direct violence by all parties in Afghanistan. Over 92,000 people have died in Afghanistan due to direct war violence, including armed forces on all sides of the conflicts, contractors, civilians, journalists, opposition forces, and humanitarian workers. Additionally, hundreds and thousands of soldiers have been wounded and traumatized seriously. It is likely that many times more than 92,000 people have died indirectly in this war, due to malnutrition, widespread diseases, and environmental degradation. Since 2001, more than 5.7 million former refugees have returned to Afghanistan, but 2.2 million others remained refugees in 2013. In January 2013, the UN estimated that 547,550 were internally displaced persons (IDPs), a 25% increase over the 447,547 IDPs estimated for January 2012 (UNHCR, 2015).

Personnel	Deaths
U.S. Military	2,357
U.S. Contractors	3,401
National Military and Police	23,470
Other Allied Troops	1,114
Civilians	26,000
Opposition Forces	35,000
Journalists and Media Workers	25
Humanitarian/NGO Workers	331
TOTAL (rounded to nearest 1,000)	92,000

Table 1: Direct War Death in Afghanistan, October 2001 – April 2015

3 Major Contemporary Challenges

3.1 Rampant Insecurity

Despite the strong presence of the U.S. and other North Atlantic Treaty Organization (NATO) forces for more than a decade and half, Afghanistan remains unstable and insecure, with the government failing to address even basic security issues. The Taliban and its supporters have been attacking from time to time, for instance during the 2014 presidential elections, the Taliban conducted a total of 761 attacks during the elections, though only about 174 were effective (McNally & Bucala, 2015). The emergence of new international jihadi groups, such as the Islamic State of Iraq and Syria (ISIS), may also be trying to establish themselves in Afghanistan. Since 2015, insecurity has significantly increased throughout the country; civilian deaths have shot up, and the Afghan security forces are taking large and potentially unsustainable casualties (Felbab-Brown, 2015).

Phyllis Bennis argued, the U.S. was not able to impose peace when it had 100,000 troops on the ground at one time in Afghanistan with another 45,000 NATO troops. Now when it has 11,000 troops and about 2,000 international troops, it certainly is not going to be able to militarily impose anything remotely resembling peace (RT News, 2014). In fact, the U.S. and many NATO members have already pulled out a substantial number of their troops and they have switched their security responsibility in such a critical situation to poorly trained and ill-equipped Afghan forces. Security experts had previously warned that without the U.S. and NATO military presence, the current democratic setup would soon collapse.

3.2 Endemic Corruption

A deep-rooted corruption in the Afghan society is also one of the major challenges for effective state-building in Afghanistan. Corrupt Afghan government institutions have failed to implement important reforms that are needed to promote human and socioeconomic development in the country. In the Corruption Perception Index for country ranking, Afghanistan is 166th out of 168 countries listed in 2015 (i.e. the third worst in the world). Nixon quotes a former *Wolesi Jirga* member who said that “you hardly find honest compatriots, if a district governor is corrupt, the whole district officials are corrupt. If the minister is corrupt, all the staff will be corrupt” (Nixon, 2011).

In reality, public positions and services are seen by many as being for sale; the police, justice system, municipalities, and customs department are widely seen as the most corrupt institutions. Extortion and other crimes by police and drug-related corruption are major issues

(The World Bank, 2009). The United Nation Office on Drugs and Crime (UNODC)'s 2012 report articulates, “half of Afghan citizens paid a bribe while requesting a public service and the total cost of bribes paid to public officials amounted to US\$ 3.9 billion. This corresponds to an increase of 40% in real terms between 2009 and 2012” (UNODC, 2012, pp. 5–6).

3.3 Illicit Narcotics (Opium Poppy Cultivation)

In the dire security situation, the only sector flourishes is the narco-economy. Afghanistan is the world's largest producer of narcotics with the share of 90% of the whole opium production of the world (UNODC, 2009). In 1986, opium production was 875 metric tons (mt), which increased to 3,416 mt in 1994 during the warlord period. By the end of 1999, its production increased to 4,500 mt when Taliban had occupied 90% of Afghanistan (UNODC, 2009, p. 7). In July 2000, the Taliban leader Mullah Omar declared that poppy cultivation was un-Islamic, resulting in one of the world's most successful counternarcotic campaigns ever in the history. Figure 1 (data collected from UNODC's opium surveys, 2009 and 2015) gives a stark presentation of the Taliban's stringent measures of ban when the production fell drastically from the previous year 3,278 mt, bringing down the total to 185 mt.

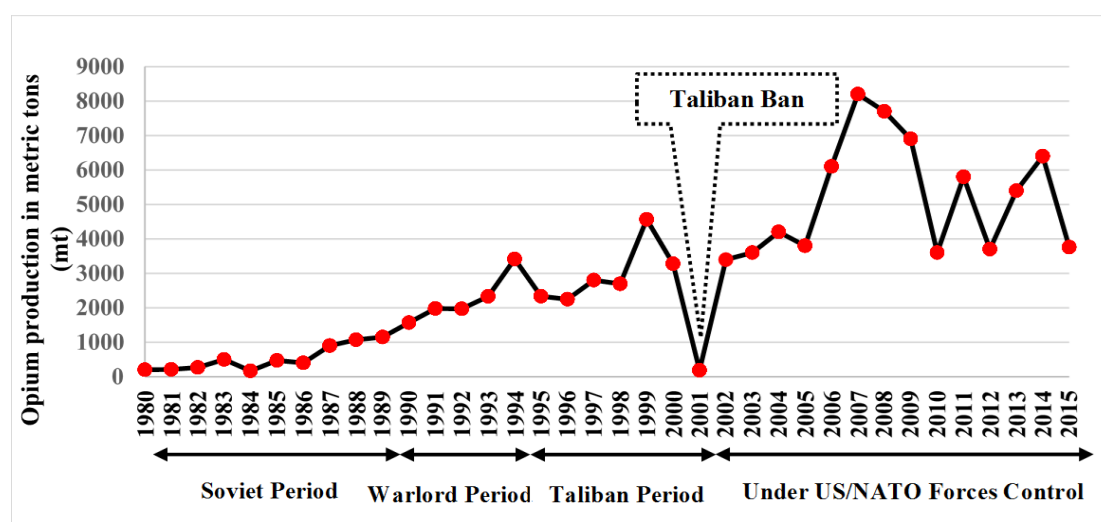


Figure 1: Opium Production in Afghanistan (1980–2015)

However, under the U.S. and NATO forces control, opium poppy cultivation and production have been drastically increased. Since 2001, the U.S., the United Kingdom (U.K.), and Afghanistan have been struggling to eradicate poppy cultivation with their separately abortive counternarcotic strategies. In fact, Afghan narco-economy being a lucrative source fueling endemic corruption and long lasting insurgency and terrorist networks in the country. Stancombe (2009) illustrates the relationship on the aggregate data from entire Afghanistan and the correlation coefficient is 0.65. This suggests a moderately high correlation of insurgents to continue to operate in those areas.

3.4 Weak Governance

Weak governance, as defined by Rotberg, is the inability of state institutions to deliver proper “political and public goods” to the people. Afghanistan's weak institutional capacity, ineffective and bad governance with extensive corruption contributes to the political insecurity, lawlessness, insurgency, and so forth (Rotberg, 2007, p. 2). The Afghan Ambassador to India Shaida M. Abdali, states that “the powerful individuals, mostly outside of the government apparatus, act independently and undermine government power and influence, particularly;

insurgents use drug production both to raise funding for war and violent activities and to weaken governance, further delegitimizing the government” (Dehli Policy Group, 2015, pp. 1-10).

Evidently, a vicious cycle (The World Bank, 2004) presented below in Figure 2 illustrates that weak governance is unable to provide effective security, while poor security creates favorable environment for illicit opium cultivation and narco-trade. Consequently, illicit drug trade financially fuels insurgents, militia, and corrupts officials (IMCO) in Afghan government. As vice versa, IMCO undermines national security and destabilizes Afghan government institutions building.



Figure 2: A vicious cycle of insecurity, corruption, narcotics, and weak governance

Afghanistan has suffered as a broken, futile, and externally dependent state facing a well-organized insurgency, an uncontrolled and politically pervasive opium trade, and continued penetration by regional criminal networks (Martin, 2011).

4 A Theoretical Prospect for Negotiations with the Taliban

This article challenges some of the underlying assumptions for stability and the notions of political reconstruction that the U.S. and the Afghan government have implemented so far are being largely responsible for the gloomy state of affairs in the country. The paper uses the *ripeness theory* expounded by Zartman (2008), centers on the concept of a ‘mutually hurting stalemate’ as a yardstick to and cautions with how the exclusion of a major stakeholder of the Afghan conflict could affect the peace process and state-building in Afghanistan.

The proponents of the ripeness notion believe that when warring parties are locked into a conflict that is mutually painful and both believe that they cannot escalate to victory, the prospects for a negotiated outcome improve significantly. To assess whether or not a “mutually hurting stalemate” exists in Afghanistan it is important to consider the conflict conditions and then the parties’ perception of those conditions (Zartman, 1995). In this scenario, the two principal parties to the conflict, the U.S. led coalition and the Taliban are in stalemate. Since 2005, Taliban insurgents have made steady gains; however, they are unlikely to achieve any major strategic gains, such as seizing control of major urban centers. In contrast, international coalition and Afghan forces have not been able to contain the insurgents’ territorial expansion.

International military casualties have escalated; so far more than 3,500 NATO troops, including at least 2,381 Americans have been killed; and just in two years there were 711 coalition deaths in 2010, up by 36% on the same period for 2009 (ICCC, 2016). And the war is increasingly costly, costing nearly US\$100 billion per year, roughly seven times more than Afghanistan's annual gross national product (GNP) of US\$14 billion (Ayman, 2013). Nasuti argues that 2,000 Taliban are being killed each year and that the Pentagon spends US\$100 billion per year on the war. In other words, US\$50 million is being spent to kill each Taliban soldier. Nonetheless, a rough estimate of the Taliban field strength is 35,000 troops; if that were the case then killing all the Taliban would cost US\$1.7 Trillion (Nasuti, 2015). Both sides could be said to be “mutually hurting”, as the theory requires.

5 The Taliban's Inclusion-Exclusion Through the Lens of Critical Analysis

The study uses a comprehensive qualitative research methodology of analysis to explain through “an interpretive framework” as a lens to examine the flawed strategy of exclusion of the Taliban and magnify previously mentioned causes and conditions that led to the Taliban's exclusion and Afghanistan's instability. In addition, in the light of facts and figures and theoretical discussion of the previous sections the study tests the hypotheses in order to formulate a better understanding of the causes of exclusion of Taliban from the Bonn conferences. Additionally, the article also elaborates the prospects of the inclusion of the Taliban in state-building of Afghanistan and gives a thoughtful analysis of the envisioned consequences.

According to the interpretive framework of five-level model analysis, the U.S. and NATO forces represent its global level; these actors have direct involvement in the conflict. The second level of the framework magnifies and proves the role of regional actors, in particular Pakistan and China's role that have a vital impact due to their security concerns. Thus, the study has mainly focused on the role of both regional countries rather focusing other regional actors due to sensitivity and their direct relation to the issue in the subsequent sections. The third level indicates the state's socio-political and economic failure as the previous sections of the study has proved them. Socially, Afghanistan is an extremely fragile society, and ethnically imbalance one. Economically, weak and it has illicit narcotics based economy, deep-seated poverty. Politically, Afghanistan has enormously weak political institutions, partisan government, and high-level corruption. The fourth level has been proving throughout the study that conflicting parties have incompatible goals; therefore, they are in conflict. The final level of the analyses, which is the core of this study that defines non-recognition and exclusionist policies against the Taliban by the U.S. and coalition forces. In addition, this level tests two hypotheses based on previous sections' findings and theoretical discussion.

5.1 The Impact of the Erroneous Exclusion

In Kabul on 19 September 2001, the Taliban's leader Mullah Mohammed Omar claimed that the U.S. used Bin Laden's involvement in 9/11 as a pretext for removal of the Taliban from power, and gesticulated that the Taliban were ready for dialogs. Later, deputy Prime Minister Maulvi Abdul Kabir of Afghanistan told to the media in Jalalabad that the Taliban would hand over Bin Laden if the U.S. stopped bombing Afghanistan (British Broadcasting Corporation, 2001). However, the Bush administration swiftly rejected Mullah Omar and Maulvi Abdul Kabir's offer for discussions. The U.S. remained resolute in its refusal to negotiate, White House representative Ari Fleischer said, “This is non-negotiable, and it is time for action, not negotiations” (White, 2001; British Broadcasting Corporation, 2001).

Not just the Americans, but also the British Prime Ministers Tony Blair and Gordon Brown insisted there would be no talks with the Taliban (British Broadcasting Corporation, 2001; White, 2001; Waldman, 2014). Tellis (2009) enunciates that President Obama, who throughout his election campaign in 2008 repeatedly affirmed that war in Afghanistan is “the right war” and “this is a war that we have to win”. Other official, Ambassador Chas. W. Freeman also argued that it must be remembered the reason we went to Afghanistan and should defeat the terrorist (Dreyfuss, 2008; Tellis, 2009).

Many scholars and researchers have heavily criticized the flawed exclusionist strategy and called as historical blunders of the U.S. and coalition forces. According to Bhadrakumar (2008) claims that “as long as the Pashtuns (Taliban) are denied their historical role in Kabul, Afghanistan cannot be stabilized, and Pakistan will remain in turmoil”. Williams (2011) criticized the hasty overhauling of the issue without including any representation from the legitimate hostile party (Taliban). Higashi (2015) also argued that the Taliban are speciously disregarded, indeed, they are the one of the genuine parties of the political settlement of the issue. Others believe that inclusion of the Taliban have been transformed into a political party and have partaken in the elections and political process (Quie, 2012; Bhadrakumar, 2008). In order to find the answer to the core issue, this study tests the first hypothesis through factual and theoretical considerations.

Hypothesis 1: “The United States and its coalition forces misperceived the imperatives of stability in Afghanistan.”

Previously discussed theoretical deliberations and extensive facts findings provide an adequate justification to test the first hypothesis that the U.S. and its coalition partners misperceived the unconquerable history and socio-political and ethnic complexities in Afghanistan. Afghanistan being a graveyard of empires has never been conquered even by the most powerful of empires and it is ungovernable by outsiders due to its complex nature of socio-ethnic dynamics.

Curtis (2010) claimed that the U.S. misread the intentions of Taliban leaders and underestimated the strength of their bonds with al-Qaeda when it sought to engage them before 9/11. Williams (2011), Higashi (2015), Bhadrakumar (2008), and Quie (2012) have criticized the U.S. short sightedness and short-term faulty initiative to fix the issue. For instance, the U.S. assigned key positions to former warlords regardless their atrocious and ferocious past. At least four appointed Ministers were militia leaders and in 32 provinces, 22 provincial governors were militia commanders; others were bribed directly in order to ensure short-term stability in their regions (Giustozzi, 2004). Furthermore, the U.S. and its allies’ miscalculation undermined seriously the legitimacy and state building in Afghanistan in two ways. First, disenfranchised but still powerful, the Taliban and Hizb-i-Islami became spoilers, driven to a lasting insurgency. Thus, the feelings of disenfranchisement arose particularly in the Pashtun South. Second, the co-option of the warlords into the government undermined the legitimacy of the government in the eyes of opposing factions and the wider population (Fukuyama, 2006).

Evidently, the U.S. forceful escalation strategy has proved counterproductive (Ayman, 2013). The International Council on Security and Development (ICOS)’s empirical findings also suggest that the majority of ordinary Afghans perceive that American and its allies disrespect their religion and traditions. They feel mistreated and ignored by all sides in the conflict, and are manipulated to serve intruders’ political and military objectives (MacDonald, Jackson, & Kamminga, 2011a, 2011b). Another ICOS’s study shows that 69% Afghan respondents from southern and other parts of the country accuse international forces for most civilian deaths,

while 12% blame Afghan security forces for civilian killing. Remaining 10% consider the Taliban responsible for a larger fraction of civilian deaths (MacDonald, Jackson, & Kamminga, 2011a). From these assessments, it can be assumed that despite the fighting more than fifteen years and wasting billions of dollars, the international forces have not defeated the Taliban and they have failed to win hearts and minds of Afghans. On top of that, it has cultivated a strong sense of anger and resentment in Afghans against international forces.

In the light of above facts findings, the second hypothesis of this study characterizes the exclusion of Taliban from the Bonn conferences and state-building caused serious obstacles and had a negative impact on the peace process. The second hypothesis of the study is:

Hypothesis 2: “Exclusion of the Taliban from the Bonn Conference sowed the first seeds of long lasting insurgency and re-emergence of the Taliban.”

A great number of conflict resolutions academia and peacebuilding analysts associate exclusion of the Taliban with the current insurgency and insecurity in Afghanistan. According to Afghan officials, the conflict will not be resolved until the Afghan Government along with the U.S. and NATO stop making contact with the Taliban’s leadership (Rubin, 2010; Waldman, 2010). Aimal Faizi, the spokesperson for Karzai, told Reuters, “I can confirm that the Taliban are willing more than ever to join the peace process, but the organizers (U.S.) was uncomfortable with them (Rob, 2014).

Julian Borger also criticized the Americans’ attitude and articulated that the 2001 Bonn agreement is as the root cause of the current Afghanistan conflict (Borger, 2011). The U.S. made a prejudgment about the motives of the opponents-the Taliban and Sunni insurgents; thus, it shut down the possibility of reconciliation in early stages of peacebuilding, and contributed hugely to the insurgencies in the later stages (Higashi, 2015, p. 26). Jonathan Powell a well-known British mediator argues that, “the problem for the West is that we left engaging with the Taliban terribly late, in retrospect, it was a mistake to have excluded them from original Bonn talks on the future of country in 2001-2011” (Powell, 2014).

However, there is an enormous criticism against the negotiation with the Taliban that the Taliban inclusion can be disastrous to the political process in Afghanistan. In 2012, Republican presidential candidate Mitt Romney said in his election campaign; “the U.S. should not negotiate with the Taliban, we should defeat them, because they have been killing American soldiers. Furthermore, he criticized the Obama administration for “extraordinary weakness” efforts to broker secret talks with the Afghan insurgents (Charles, 2012). The former Ambassador of Pakistan to the U.S., Husain Haqqani said, “Do not talk with the Taliban,” because, they possess an uncompromised extreme ideology and will not amenable to a pragmatic deal (Haqqani, 2013). Another critique of the reconciliation with the Taliban, Massoumeh Torfeh harshly criticizes and says, “Negotiating with the Taliban is an insult to the Afghan people. Has the world forgotten what they are like?” he believes that the negotiations’ outcome will be devastating and will discredit the international community beyond repair (Torfeh, 2008). Other believes that, negotiation efforts with the Taliban will not just fail; they will also strengthen the terrorist group and further destabilize Afghanistan (Majidyar, 2014; Torfeh, 2008). Gilani (2010) reveals that Americans have reluctantly recognized the Taliban as a credible force both militarily and politically. The U.S. over-anxiousness to negotiate with the Taliban now could jeopardize the U.S. counterterrorism objectives and lead to greater instability throughout the region. The U.S.’s endeavors to forge a peace agreement with the

Taliban are likely to fail due to brutal and barbaric vision of the Taliban (Christy & Moore, 2013).

Based on the academic literature and extensive analyses of facts, in spite of some marginal views against the negotiation and reconciliation with the Taliban, this study proves both hypotheses positive and suggests that the conflicting parties have possible loses; therefore, the only possible way is to negotiate and find a political solution to the issue. In other words, when a “mutually hurting stalemate” occurs that urge parties to comprehend that they cannot escape from the deadlock by escalating the conflict (Zartman, 1989). Thus, this study further discusses some important developments and indicates significant potential of successful negotiations in the following sections.

5.2 Ripeness for an Inclusion and Negotiated Political Settlement

The Taliban are vividly part of the Afghan socio-political landscape. Without the Taliban, Afghanistan's future is uncertain. Indeed, communication is the most important element in settling matters: “without a process of reconciliation, conflicts considered to have been resolved can reappear and jolt the social climate in the national and international arena” (Nets-Zehngut, 2007). In fact, the U.S.-Taliban negotiations formally started in January 2013, in Doha, Qatar, but the Taliban left the negotiating in March, Americans failed to fulfill the conditions for peace negotiations to proceed.

A recent development by the support of Pakistan in July 2015, Afghan government officials and the Taliban leaders met in Murree-Pakistan. Pakistan, being universally recognized as the most crucial external actor has been supporting the Afghan Peace Jirga initiative to bring together influential leaders from both sides and providing a good opportunity to overcome the current stalemate in peace negotiation with the Taliban (Brahimi & Pickering, 2001). Byman (2009) says that successful negotiations with the Taliban would benefit tremendously, if Pakistan can be brought on board. Higashi (2015) also considers Pakistan a fourth and an important key actor in the political process after the Afghan government, the U.S., and the Taliban. For him, any political process without Pakistan, might not be effective, and interrupt the process.

China being a supporter of the peace talk provided an opportunity of meeting between Afghanistan's peace envoy and an unofficial Taliban delegation in the western Chinese city of Urumqi. Since, China has serious concern over Islamic movement and frequent political upheaval in Chinese Muslim populous areas; they believe that anti-China Islamic movement gets physical and financial support from the regional insurgency (Matveeva & Giustozzi, 2008).

Other regional actors (i.e. Turkmenistan, Uzbekistan, Tajikistan, and Iran) who are neighbors of Afghanistan have close historical, cultural and traditional links are in general supportive of the political process (Masadykov, Giustozzi, & Page, 2010). Some Western nations are ardent devotees of reconciliation, as confirmed by the financial assistance they have provided to the Strengthening the Peace Program (PTS) in Afghanistan (Semple, 2010; Masadykov, Giustozzi, & Page, 2010). Similarly, a considerable number of the western nations are getting to be plainly intrigued by a political procedure (Masadykov, Giustozzi, & Page, 2010). The discernment is that they are beholding just for a reasonable approach and realistic initiative from the U.S. Government to embark the political process (Fields & Ahmed, 2011; Masadykov, Giustozzi, & Page, 2010).

6 Conclusion

Afghanistan has suffered profoundly enough from the clandestine designs of external powers. Certainly, the reality is that the war in Afghanistan is unwinnable. Yet the U.S. still believes that the massacre of Taliban fighters keeps up military pressure that might eventually lead their desired outcome. As vice versa, the Taliban also see military pressure as a sound strategy. However, both sides are probably mistaken. The escalated military fight is likely to be as unwinnable as the war. Accordingly, this study has figured out the simplistic notion that a single factor such as non-recognition and exclusion of the Taliban is the primary reason for the current dismal situation of Afghanistan.

The Taliban has a major stake in Afghanistan; it would be extremely unwise to disregard the Taliban and exclude them from the ambit of Afghanistan. In such a scenario, it is conceivable that the Taliban may not only discard any decision but also significantly intensify their violent activities against Afghan government. While engaging Pakistan in negotiation process is of paramount importance, given its strategic interests in Afghanistan, it is reckless to omit the Taliban from it. Denial of the fact that Taliban were, they are and will remain not only a potent but dominant force in Afghan politics. Needless to say, that 'no' genuine 'reconciliation' is possible without real (not engineered/coerced) cooperation and participation of Taliban/Pashtuns (Johnson, 2006).

This paper concludes that peace and stability in Afghanistan can only be achieved through negotiations and political settlement. Today, the conditions for talks are ideal. In recent years, the Taliban have been growing in strength. Whereas outright victory for both the U.S. and the Taliban remains far off, yet, the Taliban are not negotiating from a position of weakness. Many scholars and political analysts consider the inclusion of the Taliban as a viable quick path to a settlement. Let this paper end with a local saying: when there is a stain on clothes, it should be removed by washing rather than cutting the stained area, otherwise there will be a permanent hole on the clothes. This what happened to Afghanistan in the case of Taliban exclusion.

References

- Ayman, S. G. (2013). Reconciliation with the Taliban: Challenges and prospects. *Security Strategies*, 9(17).
- BBC History. (2001). The US refuses to negotiate with the Taliban. *BBC*. Retrieved from http://www.bbc.co.uk/history/events/the_us_refuses_to_negotiate_with_the_taliban
- Bhadrakumar, M. K. (2008, January 23). A new journey in search of the Taliban. *The Hindu*. Retrieved from <http://www.thehindu.com/todays-paper/tp-opinion/A-new-journey-in-search-of-the-Taliban/article15149433.ece>
- Borger, J. (2011, June 20). Bonn conference could mark formal start of Afghan peace process. *The Guardian*. Retrieved from <https://www.theguardian.com/world/julian-borger-global-security-blog/2011/jun/20/afghanistan-taliban-talks-bonn>
- Brahimi, L., & Pickering, T. R. (2001). *Afghanistan negotiating peace*. New York: The Century Foundation, Inc.
- Byman, D. (2009). Talking with insurgents: a guide for the perplexed. *The Washington Quarterly*, 32(2), 125–137. <https://doi.org/10.1080/01636600902775565>
- Central Intelligence Agency (2015). Afghanistan. *The World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/af.html>
- Charles, D. (2012, January 16). Romney says U.S. should not negotiate with Taliban. *Reuters*. Retrieved from <http://www.reuters.com/article/us-usa-campaign-taliban-idUSTRE80G06P20120117>
- Christy, P., & Moore, E. (2013, July 2). Talking with the Taliban? *U.S. News*. Retrieved from <https://www.usnews.com/opinion/blogs/world-report/2013/07/02/obama-wrong-to-negotiate-with-taliban-in-afghanistan>
- Cody, E. (2009, March 11). Biden asks NATO allies for more support in Afghanistan. *Washington Post Foreign Service*. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2009/03/10/AR2009031000417.html>
- Curtis, L. (2010). The U.S. must move cautiously on Taliban reconciliation. *The Heritage Foundation Backgrounder*, 2684.
- Delhi Policy Group. (2015). Guest Brief on “Weak Governance and Instability in Afghanistan: The Way Forward”, pp. 1–10. Retrieved from <http://www.delhipolicygroup.com>
- Dreyfuss, R. (2008, December 5). Obama’s Afghan Dilemma. Retrieved from <http://www.cbsnews.com/news/obamas-afghan-dilemma>
- Felbab-Brown, V. (2015). Blood and hope in Afghanistan: A June 2015 update. *Brookings*. Retrieved from <https://www.brookings.edu/research/blood-and-hope-in-afghanistan-a-june-2015-update>
- Fields, M., & Ahmed, R. (2011). *A review of the 2001 Bonn Conference and application to the road ahead in Afghanistan*. Washington, D.C.: National Defense University Press.
- Fukuyama, F. (2006). *Nation-building beyond Afghanistan and Iraq* (Ed.). Baltimore: Johns Hopkins University Press.
- Gilani, I. S. (2010, February 16). Pakistan’s attitude towards Obama’s plan to negotiate with the Taliban. Afro-Middle East Center. Retrieved from <http://www.amec.org.za/war-on-terror/item/1188-pakistan-s-attitude-towards-obama-s-plan-to-negotiate-with-the-taliban.html>
- Gilles, D. (2005). *Revolution Unending: Afghanistan, 1979 to the Present*. C. Hurst & Co. Publishers.
- Giustozzi, A. (2004). Good state vs. bad warlords? A critique of state-building strategies in Afghanistan. Working paper no. 51. London: Crisis States Research Centre.
- Haqqani, H. (2013, June 27). Don’t talk with the Taliban. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/06/28/opinion/dont-talk-with-the-taliban.html>

- Higashi, D. (2015). *Challenges of constructing legitimacy in peacebuilding: Afghanistan, Iraq, Sierra Leone, and East Timor*. New York: Routledge.
http://www.icosgroup.net/static/reports/afghanistan_dangers_drawdown.pdf
- Iraq Coalition Casualty Count. (2016). Afghanistan coalition military fatalities by year. Retrieved from <http://www.icasualties.org>
- Johnson, T. H. (2006). Afghanistan's post-Taliban transition: The state of state-building after War. *Central Asian Survey*, 25 (1/2), 1–26. <https://doi.org/10.1080/02634930600902991>
- Katzman, K. (2015). *Afghanistan: Post-Taliban governance, security, and U.S. policy*. Congressional Research Service, 4–5. Retrieved from <https://fas.org/sgp/crs/row/RL30588.pdf>
- MacDonald, N., Jackson, A., & Kamminga, J. (2011a). *Afghanistan transition dangers of a summer drawdown*. Field Assessment: Helmand and Kandahar provinces, Afghanistan. Retrieved from
- MacDonald, N., Jackson, A., & Kamminga, J. (2011b). Afghanistan transition and Kabul University: Winning minds, losing hearts. *Kabul: International Council on Security and Development (ICOS)*, 28–32.
 Retrieved from <http://www.icosgroup.net/2011/report/kabul-university>
- MacDonald, N., Jackson, A., & Kamminga, J. (2011c). Afghanistan transition: The death of Bin Laden and local dynamics. *Kabul: International Council on Security and Development (ICOS)*, 26. Retrieved from <http://www.icosgroup.net/2011/report/bin-laden-local-dynamics2>
- Majidyar, A. (2014). *Negotiating with the Taliban: Lessons from history*. American Enterprise Institute, Massachusetts Avenue, Washington, D.C.
- Martin, P. (2011). Intervening for Peace? Dilemmas of liberal internationalism and democratic reconstruction in Afghanistan. *Journal of Military and Strategic Studies*, 13(3).
- Masadykov, T., Giustozzi, A., & Page, J. M. (2010). *Negotiating with the Taliban: Toward a solution for the Afghan conflict*. Crisis States Research Centre Working Paper 66, Series 2. London: London School of Economics.
- Matveeva, A., & Giustozzi, A. (2008). *The SCO: A regional organization in the making*. Crisis States Research Centre Working Paper 39, Series 2. London; London School of Economics.
- McNally, L., & Bucala, P. (2015). *The Taliban resurgent: Threats to Afghanistan's security. Afghanistan Report II*, Institute for the Study of War. pp. 22–23. Retrieved from <http://www.understandingwar.org/sites/default/files/AFGH%20Report.pdf>
- Nasuti, M. (2015, December 4). Killing each Taliban soldier costs \$50 Million: *Information Clearing House*. Retrieved from <http://www.informationclearinghouse.info/article26521.htm>
- Nets-Zehngut, R. (2007). Analyzing the reconciliation process. *International Journal on World Peace*, 24(3), 53–81.
- Nixon, H. (2011). *Achieving durable peace: Afghan perspectives on a peace process*. Oslo: Peace Research Institute Oslo (PRIO).
- Powell, J. (2014). *Talking to terrorists: How to end armed conflicts*. Random House.
- Quie, M. (2012). Peace-building and democracy promotion in Afghanistan: The Afghanistan peace and reintegration programme and reconciliation with the Taliban. *Democratization*, 19(3), 553–574.
<https://doi.org/10.1080/13510347.2012.674362>
- Rashid, A. (2002). *Taliban: Islam, oil, and the new great game in Central Asia*. London: I. B. Tauris.
- Rob, C. (2014, February 4). Hamid Karzai “in secret talks with the Taliban”. *The Telegraph*. Retrieved from

- <http://www.telegraph.co.uk/news/worldnews/asia/afghanistan/10616437/Hamid-Karzai-in-secret-talks-with-the-Taliban.html>
- Rotberg, I. R. (Ed.). (2007). *Building a New Afghanistan*. Brookings Institution Press and World Peace Foundation.
- RT News. (2014) “Afghanistan to experience gradual erosion of the security situation even further”. Retrieved from <https://www.rt.com/op-edge/218359-afghanistan-us-withdrawal-taliban>
- Rubin, A. J. (2010, January 28). A reconciliation plan in Afghanistan. *The New York Times*. Retrieved from <http://www.nytimes.com>
- Runion, M. L. (2007). *The history of Afghanistan*. U.S.: Greenwood Publishing Group.
- Semple, M. (2010). *Reconciliation in Afghanistan*. Washington DC: USIP Press.
- Shultz, R. H., & Dew, A. J. (2006). *Insurgents, terrorists, and militias: The warriors of contemporary combat*. New York: Columbia University Press.
- Sinno, A. H. (2008). *Organizations at war in Afghanistan and beyond*. Ithaca, NY/London: Cornell UP.
- Stancombe, J. (2009). *Vicious circle: An analysis of the role of narcotics in insurgent violence in Afghanistan from 2001 to 2008*. Indiana University BA Thesis. Retrieved from http://archive.atlantic-community.org/index.php/ott_type/Your_Research/12
- Tellis, A. J. (2009). *Reconciling with the Taliban?: Toward an alternative grand strategy in Afghanistan* (Vol. 4). Washington, DC: Carnegie Endowment for International Peace.
- The World Bank. (2004). *Afghanistan: State-building, sustaining growth, and reducing poverty: A country economic report*. Retrieved from <http://documents.worldbank.org/curated/en/990161468739792400/pdf/295510AF.pdf>
- The World Bank. (2009). *Fighting corruption in Afghanistan: Summaries of vulnerabilities to corruption assessments*. Retrieved from http://siteresources.worldbank.org/AFGHANISTANEXTN/Resources/305984-1237085035526/5919769-1249254211329/VCA_Summary_Report_Final_July_17_2009.pdf
- Torfeh, M. (2008, October 8). Don't talk to the Taliban. *The Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2008/oct/08/afghanistan.terrorism>
- Transparency International. (2015). Transparency International's Corruption Perception Index. Retrieved from <https://www.transparency.org/cpi2015>
- United Nations High Commissioner for Refugees. (2015). UNHCR country operations profile – Afghanistan. Retrieved from <http://www.unhcr.org/afghanistan.html>
- United Nations Office on Drugs and Crime. (2009). *Addiction, crime, and insurgency: The transnational threat of Afghan opium*. Retrieved from http://www.unodc.org/documents/data-and-analysis/Afghanistan/Afghan_Opium_Trade_2009_web.pdf
- United Nations Office on Drugs and Crime. (2012). *Corruption in Afghanistan: Recent patterns and trends*. Retrieved from https://www.unodc.org/documents/frontpage/Corruption_in_Afghanistan_FINAL.pdf
- United Nations Office on Drugs and Crime. (2015). *Afghanistan opium survey 2015 – Executive summary*. Retrieved from https://www.unodc.org/documents/crop-monitoring/Afghanistan/Afg_Executive_summary_2015_final.pdf
- Waldman, M. (2010). Tough talking: The case for negotiations with the Taliban. *The RUSI Journal*, 155(6), 60–66. <https://doi.org/10.1080/03071847.2010.542675>
- Waldman, T. (2014). Reconciliation and research in Afghanistan: an analytical narrative. *International Affairs*, 90(5), 1049–1068. <https://doi.org/10.1111/1468-2346.12156>
- Watson Institute for International and Public Affairs. (2015). Human cost of war in Afghanistan: Brown University. Retrieved from

<http://watson.brown.edu/costsofwar/files/cow/imce/figures/2015/SUMMARY%20CHART%20-%20Direct%20War%20Death%20Toll%20to%20April%202015.pdf>

White, J. (2001, October 16). Why is Bush refusing to negotiate with the Taliban? *World Socialist Web Site*. Retrieved from <https://www.wsws.org/en/articles/2001/10/tali-o16.html>

Williams, M. J. (2011). (Un) Sustainable peacebuilding: NATO's suitability for postconflict reconstruction in multiactor environments. *Global Governance: A Review of Multilateralism and International Organizations*, 17(1), 115–134.

Zartman, I. W. (1989). *Ripe for resolution: Conflict resolution in Africa*. (2nd Ed.), New York: Oxford University Press.

Zartman, I. W. (2008). *Negotiation and Conflict Management: Essays on Theory and Practice*. Oxford: Routledge.

Zartman, I. W. (Ed.). (1995). *Elusive Peace: Negotiating an End to Civil Wars*. Washington, D.C.: The Brookings Institution.

Corresponding author: Sajjad Ahmed

Contact email: sajjadagem@gmail.com

**The Impact of Farmers' Resistance to Trade Liberalization:
A Comparative Study on Political Process around FTAs in Korea and Japan**

Akio Nawakura, Meiji University, Japan

Abstract

This study asks why South Korea could liberalize its international trade faster than Japan in spite of its farmers' strong opposition. Though both the governments of Korea and Japan had protected their agriculture until the 1990s, Korea has liberalized its trade of agricultural products much faster than Japan in these few decades. In both countries, farmers have resisted trade liberalization. However, Korean farmers have been less influential on their government than Japanese farmers. This is due to the farmers' lobbying strategy. While Japanese farmers have lobbied ruling parties exchanging their ballots with political interests, Korean ones have relied on street demonstrations. Because the Korean farmers have not exchanged political interests with ballots, they have been less influential on policymakers than Japanese farmers.

Keywords: Korea, Japan, trade liberalization, FTA, farm lobby

Introduction

This study asks why South Korea (hereafter Korea) could step toward trade liberalization faster than Japan in spite of its farmers' strong anti-free trade movement.

Korea and Japan have shared their patterns of economic growth: While exporting industrial goods to the markets overseas, they have protected their vulnerable agriculture from international competition. Agriculture in the two countries is characterized as extremely small family farming,¹ concentration in rice production, and high production cost.² These factors have made Korean and Japanese agriculture less competitive and have given the two governments the incentives to protect their agricultural industries by quantitative import restrictions and strict governmental control of rice retailing. The farmers in the two countries hence have been politically protected and been exempted to compete in global market. In short, the agricultural policies in Korea and Japan could be described as “Closed Door-ism” in terms of international trade before the 1990s.

Since the 2000s, however, these two countries have shaped different policy patterns each other. Korea has expanded its Free Trade Agreement (FTA) networks with major economies such as the United States, the European Union, and China.³ These FTAs include the open door-ism not only in industrial goods trading but also in agricultural products trading. Meanwhile, Japan had ratified the FTAs or Economic Partnership Agreements (EPAs) with limited numbers of small economies such as Singapore, Thailand, and Australia until the Trans Pacific Partnership (TPP) with a number of Asia-Pacific countries including the United States in 2015.

Conventional arguments in mass media have pointed out the farmers' resistance as a major reason for the Japan's delay in trade liberalization.⁴ However, Korean farmers have also acted to prevent trade liberalization. As widely known, Korean farmers have operated a number of street demonstrations to resist free trade inside and outside Korea.⁵ However, their demonstrations have not been influential to prevent trade liberalization in Korea. If their activities have been less influential in trade policymaking than other democratic countries, it raises one question: Why have the Korean farmers been less influential than the Japanese ones to prevent free trade agreements? This study focuses on the difference of the farmers' strategy to resist trade liberalization in the two countries.

In the analysis below, the case studies are implemented on three cases: the Uruguay Round Agreement on Agriculture (UR) in 1993, Korea-China FTA in 2015, and Japan-Thailand EPA in 2007. The UR played a crucial role for the two countries to open up their agricultural market. China and Thailand are huge exporters of rice and, therefore, the FTA and EPA with the agricultural exporting countries caused the farmers' strong resistance both in Korea and Japan. Therefore, the Korea's FTA with China and the Japan's EPA with Thailand fit the comparative analysis.

¹ The size of farmlands per household accounts less than 3ha both in Korea and Japan as of 2015. For detail, see Statistics Korea (n.d.).

² For detail of Asian agriculture including Korea and Japan, see Fan and Chan-Kang (2003).

³ For detail, see The Ministry of Foreign Affairs of the Republic of Korea (n.d.).

⁴ Bloomberg (2015) points to the Japanese Agricultural Cooperative's political presence as “extraordinary, semi-public powers” mentioning the Prime Minister Shinzo Abe's agricultural reform.

⁵ The Korean Peasants' League (n.d.) lists its “struggle” against free trade on its website. According to this chronological list, the farmers' group has held more than ten demonstration events to prevent FTAs and other trade liberalization measures.

Previous Studies and Their Subjects

In conventional arguments in social science, political system has been pointed out as the main contributor in the difference of trade liberalization in Korea and Japan. Particularly, the Presidential system has been explained as the major contributor for Korea's rapid trade liberalization. While the President of Korea has its strong legal power to ignore the farmers' lobbying, the Prime Minister of Japan is elected by the Diet, where the constituencies in rural areas are over representative. Because the ruling Liberal Democratic Party (LDP) has been based on rural areas' ballots, the party's cabinets have strong incentive to avoid the trade liberalization in agriculture to gain political approval from farmers. Because the President of Korea is directly elected by the nationals, meanwhile, over representation in rural constituencies cannot occur (Saito & Asaba, 2012; Takayasu, 2014).

The recent changes of the LDP's agriculture policies have been explained as the increase of the Prime Minister's leadership. Since 2012, the LDP government has pushed trade liberalization including agricultural products. Though the Japan Agricultural Cooperatives (JA) has resisted, the government achieved the final agreement of the TPP, the multi-lateral free trade agreement including Japan, Australia, New Zealand, and the United States. Previous studies have pointed out that the strengthened Prime Minister's leadership in policy network is the major contributor for this achievement (Sakuyama, 2015; You, 2016).

From the perspective of international comparison of farm lobby, however, the arguments above are inadequate to explain the difference between Korea and Japan because farm lobbies in Western countries have overcome the institutional barriers such as strong presidency. As Julien (1989) and Orden et al. (2009) point out, the farm lobby in the United States has sustained its political influence for several decades in spite of rule changes in the Congress and of trade liberalization. Both Julien and Orden argue that the farm lobbies have sustained its influence by changing their strategy. Under the WTO regime since the 1990s, for example, the American farm lobbies have shifted their request from price support to income compensation. It was because the WTO codes approve direct income compensation for farmers while prohibiting price distortions of agricultural products. Also in Europe, while the political role of the European Union (EU) is strengthened, lobbying groups have reinforced its contact to the officials in Brussels (Chambers 2016). Therefore, the institutional factors cannot fully explain why the farmers' political action showed different performance in Korea and Japan. How the farmers behaved in the process of lobbying should also be focused on.

Japanese Farmers' Activities

The JA has lobbied the ruling LDP to prevent trade liberalization of agricultural products since the 1990s. Though the population of farmers has been decreased in Japan, the JA sustains its membership more than ten million in 2014, which covers the most farmers and rural residents in Japan.⁶ Their large numbers of ballots have been quite attractive for the ruling party. When the government faced the need to launch agricultural reforms based on the Uruguay Round Agreement on Agriculture in 1994, the national headquarters of the JA (JA Zenchu) required the LDP Diet men to prevent the reforms. In the reform under the Uruguay Round Agreement, the government and ruling parties once planned the cancellation of its price support system on rice, the most major agricultural products in Japan and this became a symbol of the agricultural reform under the UR regime (Yoshida, 2009). The JA set the substantial continuing of the price

⁶ For detailed data, see JA Zenchu (2016).

support system as the necessary condition to assist the ruling LDP in coming Diet elections. Because the LDP had depended on rural ballots until the Koizumi Cabinet's structural reforms in the 2000s, the JA's pressure succeeded to prevent the reform (Nakamura, 2000). Though the Food Act of 1994 deregulated the retailing process of rice on the one hand, it regulated the rice retailers under the license system by the Ministry of Agriculture, Forestry and Fishery.⁷

The JA's successful lobby in the 1990s can be seen as a fruit of political situation at that time. As a result of the 1993 general election of the House of Representatives, the LDP lost its status as a ruling party and learnt how the opposition party is less influential in policymaking than the ruling one (Yoshida, 2009). In order to recover their influence on governmental ministries and business groups, the LDP Diet men sought every political support to win the coming election of the House of Representatives. This situation gave the LDP members the incentive to accept every request from lobbying groups in exchange for their ballots.⁸ In other words, the JA used their members' ballots in the coming election as a strategic tool to sustain the protection on rice farming.

Also in the 2000s, the JA continued its lobbying activities. When the government began the negotiation on a new EPA with Thailand in 2003, the JA strongly opposed it. Because Thailand is the world's largest exporter of rice, the JA feared mass import of Thai rice.⁹ Different from the case of the UR, however, the business lobby of the Japan Business Federation ("Keidanren") became further influential in the Koizumi Cabinet (2001–2006) seizing the membership in the Council on Economic and Fiscal Policy, the core of economic policymaking conference in the Prime Minister's Office. The Keidanren strongly supported the EPA with Thailand from the perspective of the market access in Southeast Asia (Keidanren, 2011).

While the Keidanren supported the reduction of tariffs in the EPA with Thailand, the JA operated the "dual lobbying strategy" to sustain the high tariff barrier of rice: It lobbied not only the LDP lawmakers but also farmers' associations in Thailand.

In the EPA negotiation, the government of Thailand requested Japan to open its agricultural market, particularly that of rice, while opening the Thai domestic market for Japanese industrial goods. Though Japan hesitated to accept the request due to heavy resistance by the JA, such closed door-ism of Tokyo caused strong complaints from Bangkok. This caused criticism on the JA as it was an obstacle for free trade. The failure of the EPA negotiation could cause stronger criticism on the farm lobby. In order to avoid the failure of the negotiation, the JA contacted the agricultural sector of Thailand and offered development assistance including farming education, introduction of new technology, and personnel exchange (Miura, 2011). The JA's offer was expected to assist some poor Thai farmers (Japan Association for International Collaboration of Agriculture and Forestry, n.d.). This contributed to Thailand's compromise in the negotiation to eliminate a number of agricultural products from the Japan-Thailand EPA. As seen above, the JA pursued to protect the interest of Japanese farmers by pragmatic lobbying on political parties and farmers' associations abroad. The JA's approach has influenced to delay trade liberalization of agricultural products in Japan.

⁷ For actual script of the Food Law of 1994, see the Ministry of Agriculture, Forestry, and Fishery of Japan (2016).

⁸ The former Minister for Agriculture, Forestry and Fishery Yoshio Yatsu professed that the LDP lawmakers had strong will to accept the request from the JA in the mid-1990s. (*Asahi Shimbun*, 2016, November 12)

⁹ When the government imported Thai rice as an emergency measure due to the extremely cold summer in 1993, the Japanese rice market fell into heavy confusion. This experience encouraged the JA's opposition to the EPA with Thailand.

Korean Farmers' Activities

Korean farmers began to resist to trade liberalization of agricultural products in the late 1980s, when their country experienced trade friction with the United States. As its economy shifted from developing stage to developed one, Korea faced the antagonism between export-oriented industrial sector and highly protected agricultural one.

Meanwhile, Korea was also in the shift from authoritarian rule to democratic one in the end of the 1980s. In the process of the democratization, large number of farmers challenged the hegemonic status of the Nong-Hyup (NH), the Agricultural Cooperatives in Korea. Though the NH was the only national center of farmers' associations under the authoritarian rule, the government strictly constrained its political activity. The head of the NH was nominated by the President before 1989 (Nong-Hyup, 2011). The farmers criticized the NH's dependence on the government and launched new associations to represent their own voice politically: the Korean Advanced Farmers Federation (KAFF) and the Korean Peasants League (KPL). The KAFF was founded as a mutual cooperative association for young farmers in 1987 (Korean Advanced Farmers Federation, 2014). The KPL was founded in 1990 supported by Catholic churches (Korean Peasants League, n.d.). Because of the background above, both the KAFF and the KPL were critical of the government.

When the government signed the UR Agreement Document in 1993, the KAFF and the KPL resisted the agreement because it required member states to remove non-tariffs barriers on trade such as price support within ten years, which was expected to hit Korean agriculture with huge damage. The two associations held street demonstrations to criticize the government mostly every day since the sign in the UR Agreement in October 1993.¹⁰

In January 1994, while the UR Agreement and its related bills were discussed in the National Assembly, the government suggested two plans to protect Korean agriculture under free trade. First one is the Special Tax for Agricultural and Fishery Villages. This tax is collected from enterprises and individuals as a fund to assist rural and fishery regions (Office of the National Assembly 1994). However, this tax aimed to raise the farmers' "productivity" rather than their "income" and opposition parties criticized this point in the National Assembly's sessions. Secondly, the government launched an advisory council to plan rural policies using the special tax.¹¹ This was a chance for the KAFF and the KPL to influence the government and to get the government's commitment on protective farm policies as the JA did.

However, both the KAFF and the KPL did not show interest in the government's suggestion. Instead of lobbying the government or the National Assembly members on the suggestion, they continued the opposition to the UR Agreement itself. In February 1994, when the National Assembly ratified the UR, some KPL members intruded into the Assembly's building and demonstrated their opposition to the UR.¹² Even after the ratification, both of the farmers' groups continued street demonstrations to insist the denial of the UR itself (KAFF, 2014). Because Korea had grown oriented by export, their request to deny free trade under the UR at all was seen as an unrealistic opinion. And because the two groups repeated their request on the street without substantial lobbying, ironically, the government and the advisory council gained the discussion arena without farm lobby and could decide to strengthen the competitiveness of Korean agriculture using the special tax. On the trade liberalization after

¹⁰ *The Chosun Ilbo* (1993, October 23).

¹¹ *The Chosun Ilbo* (1994, January 17).

¹² For detail and photo data, see Korea Democracy Foundation.

the UR, in short, the trade-off between ballots and political interests as seen in Japan did not occur in the Korean case.

A similar pattern was also seen in the FTA with China in 2015. When the government announced its plan of the FTA, the KAFF and the KPL criticized it as a “predatory” action to harm Korea farmers (Korean Peasants League, n.d.). Though the government held dialogue with farmers, the two groups only criticized the FTA itself and refused any compromise. Rather, the farmers disturbed the government’s hearing on the FTA by violence.¹³ This resulted in the absence of communication between farmers and the government. Meanwhile, the business sector has lobbied strategically not only on governmental officers and lawmakers but also on public opinion showing how free trade raises the GDP of Korea.¹⁴ As a result, the government could be free from the farmers’ lobby in the negotiation with Beijing.

As seen above, the KAFF and the KPL have refused free trade of agricultural products itself and, therefore, they have also refused to participate in policy process in trade liberalization. This pattern is similar to civil movement for democratization in the 1980s and the 1990s, when the two groups were founded. When the authoritarian rulers tried to perpetuate their rules in 1987, students, labors, and religious groups operated mass street demonstration in order to deny the rulers’ legitimacy. Previous studies describe this pattern as “a protest from outside the governmental sphere”.¹⁵ Because participation in political process means the mandate and acceptance of the authoritarian regime, they denied participating in every political process. Following how the democratization activists did, the two groups resisted free trade from the outside of political process. Actually, in the author’s interview, the cadres of the KAFF and the KPL recognized that they resisted trade liberalization “on the extension of the democratization movement” or “having anger on predatory free trade measured by the government”.¹⁶

Ironically, their struggle against free trade was less influential than the lobbying strategy the JA did in Japan. The protest without political participation and any compromise did not bear the exchange of ballots and interests and gave the government only the limited incentives to hear the farmers’ voice. As a result, the government of Korea could step forward trade liberalization by FTAs without the prevention by farm lobby.

Conclusion, Implication, and Subjects

The analysis in this study indicates that the Korean farmers’ opposition on trade liberalization of agricultural products has been too strong to compromise with the free trade-oriented government. Their attitude without political flexibility has its roots in the democratization movement in the 1980s and it has prevented them from pragmatic lobbying on governmental officials or legislative members. This as a result has made them less influential in policymaking than the Japanese farmers.

The result of analysis above shows how the farm lobby plays a crucial role to explain the difference between Korea and Japan in terms of trade liberalization since the 1990s. In addition, an important implication can be drawn from the analysis: Interest groups sometime behave

¹³ *The Chosun Ilbo* (2012, February 24).

¹⁴ Kim (2010) describes how the Korean businesses lobbied in terms of free trade focusing on the Korea-US FTA.

¹⁵ While arguing the civil associations’ political participation in local governance in the 1990s, Bae (2012) mentions that not all civil groups participated in political process before the 2000s.

¹⁶ Based on the author’s own interviews on the cadres of the KAFF and the KPL.

irrationally motivated by political dogma or ideology. In this study's case, though the KAFF and the KPL were quite passionate, their behavior to protect peasants' interests was less pragmatic than the JA in terms of farmers' interests. Following the way of democratization movement, the Korean farmers were too dogmatic to pursue interests by lobbying. This is contrary to the perspectives of conventional studies to see lobbyists as rational actors. As Winden (2003) points out, the academic studies on lobby have often been based on the framework of Public Choice, which sees all actors behave rationally in pursuing their interests. The Korean case in this study indicates a case that lobbyists act irrationally.

However, the legacy of democratization observed in this study is just one of the factors to make lobby irrational. It is the future's subject to clarify the whole figure of the factors to cause lobbyists' irrational behavior.

Acknowledgements

The original version of this article is a paper presented at the Asian Conference on Politics, Economics & Law 2016 held in Kobe, Japan in October 2016. Advice and comments by anonymous peer reviewers in the *IAFOR Journal of Politics, Economics & Law* editorial team have been a great help in revising the paper.

References

Books & Articles

- Bae, Y., & Kim, S. (2012). Civil society and local activism in South Korea's local democratization. *Democratization* 20(2), 260–286.
<https://doi.org/10.1080/13510347.2011.650913>
- Fan, S., & Chan-Kang, C. (2003). Is small beautiful? Farm size, productivity and poverty in Asian agriculture. Paper presented at the 2003 International Association of Agricultural Economists, Durban.
- KAFF. (2014). *Han nong yeon (Korean Advanced Farmers Federation)*. Seoul: Korean Advanced Farmers Federation (in Korean).
- Kim, C. (2010). South Korea's business sector and the transformation of the ROK-US Alliance: A case study of KORUS FTA. Paper presented at the Influence and the Role of Domestic Stakeholders on the US-RoK Alliance Workshop Seoul.
- Miura, H. (2011). The analysis of Japan–Thailand economic partnership agreement Negotiation. *The Journal of Asia-Pacific Studies* 17, 79–98 (in Japanese).
- Nakamura, Y. (2000). *Tanbono kage ni hyo ga aru* (“Ballots behind paddy fields”) Tokyo: Bungei Shunju (in Japanese).
- Office of the National Assembly. (1994). *The Proceedings of the 166th National Assembly*. The National Assembly of the Republic of Korea (in Korean).
- Saito, J. & Asaba, Y. (2012). Clientelism and trade liberalization: Institutional foundations of agricultural protection in Japan and Korea. *Japanese Journal of Electoral Studies* 28(1): 114–134 (in Japanese).
- Sakuyama, T. (2015). *The truth of Japan's participation in the TPP negotiations: Revealing its policy process*. Tokyo: Bunshindo (in Japanese).
- Takayasu, Y. (2014). *Kankoku ni okeru shijokaiho to nogyokozo kaikaku*. (“The market liberalization and agriculture structural reform in Korea”). Tokyo: Nihonhyoron-sha (in Japanese).
- You, H. (2016). *Nikkan no FTA seisaku no hikakuseiji gyoseiseido bunseki*. (“Comparative political and administrative analysis on the FTA policies in Korea and Japan”). Kyoto University PhD Thesis (in Japanese).
- Yoshida, O. (2009) *Jiminto nouseishi*. (“The history of agricultural policies under the LDP”). Tokyo: Taisei Publishing (in Japanese).
- Note:** The English titles of Nakamura (2000), Takayasu (2014) and You (2016) are unofficial ones translated by the quoter.

Websites

- Bloomberg: <http://www.bloomberg.com/news/articles/2015-02-10/japan-s-farm-lobby-concedes-to-abe-s-agriculture-reform-plans> (Reviewed on November 6, 2016)
- JA Zenchu: <http://www.zenchu-japan.or.jp/about/organization> (Reviewed on November 6, 2016)
- Keidanren (Japan Business Federation):
<https://www.keidanren.or.jp/japanese/policy/2011/108/honbun.html> (Reviewed on November 7, 2016)
- Japan Association for International Collaboration of Agriculture and Forestry:
http://www.jaicaf.or.jp/agrinfor/0706/Report_241005.htm (Reviewed on November 7, 2016)
- Korea Democracy Foundation: <http://db.kdemocracy.or.kr/photo-archives/view/00755138>
 (Reviewed on November 7, 2016)
- Korean Advanced Farmers Federation: <http://www.kaff.or.kr/introduce.history> (Reviewed on May 26, 2017)

Korean Peasants League: http://ijunnong.net/ver2010/introduce/int_04.php (Reviewed on November 6, 2016)

Ministry of Agriculture, Forestry, and Fishery of Japan:

<http://www.maff.go.jp/j/syouan/keikaku/zyunshu/> (Reviewed on November 6, 2016)

Ministry of Foreign Affairs of the Republic of Korea:

http://www.mofa.go.kr/ENG/policy/fta/status/overview/index.jsp?menu=m_20_80_10
(Reviewed on November 9, 2016)

Nong-Hyup (Agricultural Cooperatives of Korea):

http://www.nonghyup.com/nh50th/History50th_1980.aspx (Reviewed on November 7, 2016)

Statistics Korea:

http://kosis.kr/statisticsList/statisticsList_01List.jsp?vwcd=MT_ZTITLE&parentId=F
(Reviewed on November 5, 2016)

Newspapers

The Asahi Shimbun

The Chosun Ilbo (“The Daily Korea”)

The Korea Times

Corresponding author: Akio Nawakura

Contact email: republic_of_korea_1948@hotmail.com

Appendix: Interview Data

Interviewees	Affiliation	Date	Place
Mr. Han Min-su	General Manager of Policy Research Section, Korean Advanced Farmers Federation	May 13, 2016	The headquarters of the KAFF, Seoul
Mr. Choi Hyeong-kwon	Manager of Organizational Education, Korean Peasants League	Sep. 6, 2016	The headquarters of the KPL, Seoul
Mr. Lee Jong-hyeok	Policy Director, Korean Peasants League		

Victory in Cyberspace

Miguel Alberto Gomez

Center for Security Studies, Swiss Federal Institute of Technology, Switzerland

Abstract

A review of state-associated incidents in cyberspace over the past decade reveals that over two thirds of these involved actors within the Asia-Pacific, often occurring in the context of politico-economic disputes. These activities, ranging from attempts at espionage to coercion, in all appearance appears to confirm the domain's increasing strategic value. But upon closer inspection, only half of these have resulted in meeting their political objectives. Moreover, these have involved notable regional powers employing relatively unsophisticated tools and tactics in cyberspace. This challenges the prevailing notion that cyberspace provides an asymmetric advantage for middling and/or weak powers due to its low cost of entry and the increasing technological dependence of targets. With growing tensions in the Asia-Pacific, the need to better understand the strategic utilization of this domain is paramount. In so doing, this paper argues that coercive success in cyberspace is not determined solely by an aggressor's technological prowess but depends crucially on appropriate force employment and an understanding of the domain's unique geography. Through the analysis of the Stuxnet operation, the paper demonstrates that careful consideration of these factors may better account for the success or failure of coercion in the domain.

Keywords: cyberspace, strategy, coercion, cyber conflict

Cyberspace and Failed Promises

The appearance of state-associated cyber operations in conjunction with disputes in the physical domain has become commonplace over the past decade. As heralded by Arquilla and Ronfeldt's prescient article in 1994, the perceived strategic utility of cyberspace appears to have encouraged state actors to employ it as a coercive tool aimed at shifting an adversary's behavior in their favor (Arquilla & Ronfeldt, 1993). Prominent cases such as the Estonian Distributed Denial-of-Service (DDoS) in 2007 and the discovery of Stuxnet aimed at Iranian nuclear centrifuges in 2010 have buoyed initial claims of the advantages provided by operations in cyberspace.

On the one hand, while cyber operations are indeed on the rise, they have proven to be far less effective than initially perceived as coercive cyber operations have succeeded less than three-percent (3%) of the time (Valeriano & Maness, 2014). Furthermore, despite increased dependence on cyberspace in support of political, economic, and military objectives, advanced cyber operations that threaten these have failed to inflict lasting damage capable of altering the balance of power. Overall, the utility of cyber operations as a means of influencing state behavior and policy appears to be inadequate relative to conventional (e.g. physical military force, economic sanctions, etc.) means. A paradox then exists between the prevailing "cyber revolution" thesis that proposes an evolution in the exercise of state power by means of cyberspace and that of the empirical evidence calls for further investigation of the causal dynamics that lead to the successful use of coercive cyber operations.

While several factors exist that influence the outcome of coercion (Pape, 1996; Schelling, 2008), this paper grounds its analysis on the unique characteristics of cyberspace and on variations of actor perceptions towards the domain and its influence over coercive operations. This view stands in contrast with the predominant notion that increasing dependence to and continued vulnerability of cyberspace alone leads to successful coercion. To demonstrate this proposed framework, a plausibility probe is conducted on a representative case. The objective of which is not to discredit previous arguments that support the predominant account, but rather, to offer a theoretically grounded argument to account for events in this domain.

In so doing the paper proceeds as follows. The succeeding section offers a brief overview of the concept of coercion as it applies to the traditional domains of air, sea, and land. This sets the tone for the succeeding section that presents how the current framework applies vis-à-vis the unique geography of cyberspace. Furthermore, this section walks the reader through the logic of coercion in cyberspace rooted in current strategic thought. After which, the paper offers an alternative framework grounded on perceptive differences with regards to the importance of cyberspace as a key factor for the success of coercive operations. It is in this section that the core arguments are presented. Following this, the methodology employed is established that allows for the case in the succeeding section to be analyzed. Finally, the paper concludes with a discussion of the initial results and the possible direction that subsequent investigations may take.

Coercion: A Recap

The use of coercive operations to further the strategic state interests has a long, and perhaps dubious, history. Commonly seen as the "power to hurt", coercion is the use or threat of force aimed at influencing an adversary's behavior (Schelling, 2008). Central to this exercise is the

ability to force an adversary to re-assess the cost of non-compliance versus the benefits of yielding to coercive demands.

Although the exact terminologies associated with coercion is open to debate, these activities are viewed as functions of time relative to an adversary's actions: deterrence or compellence. Deterrence is enacted prior to an adversary engaging in an action that is deemed unfavorable by the coercer. Deterrence attempts to prevent a change in the status-quo by threatening costs should an adversary deviate from their current behavior. This presents deterrence as less costly and easier to attain as an adversary has little to no sunk costs involved and is primarily concerned with costs emerging from non-compliance and the loss of future benefits. In contrast, compellence aims to alter an adversary's current behavior and is reactive in nature. Unlike deterrence, compellence incurs more costs as an adversary is not only concerned with foregoing future benefits but forfeits the benefits of resources invested up to this point. Furthermore, the potential cost of non-compliance needs to be assessed as well. Consequently, compellence is thought to be more difficult than deterrence (Schaub, 2004; Schelling, 2008).

Apart from timing, coercion is also differentiated based on its intended recipient(s) and may manifest itself as denial or punishment strategies (Pape, 1996). The former requires inflicting or threatening costs to prevent an adversary from attaining their political or strategic objectives. This entails targeting assets or infrastructure critical that support these goals. In contrast, punishment strategies aim to increase the cost and/or risk to the civilian population by targeting them directly in the hopes of increasing civilian pressure on government.

Although the underlying rationale to both compellence and deterrence applies to cyberspace, special considerations unique to the domain need to be accounted for. Specifically, the characteristics of cyberspace dictates that compellence is more feasible than deterrence within the domain. The increasing integration of technology into day-to-day life, and more importantly in crucial services, offers adversaries targets for compellent threats. Disabling critical infrastructure, either civilian or military, allows for both punishment and denial strategies. In contrast, deterrence is much harder to employ as this requires the demonstration of capabilities. Within cyberspace, exposing one's technical capabilities allows an adversary to quickly study and develop countermeasures against future threats and thus mitigating the threat of punishment which forms the foundation of deterrence.

Yet despite these shortcomings, the underlying premises of coercion is still applicable to this virtual domain. As such, the succeeding section furthers this argument and links the unique geography of this domain with the predicted success of coercive cyber operations.

Geography, Interdependence, and Coercion

In lieu of the abstracted nature through which most interact with cyberspace, it is reasonable to perceive it as a monolithic and featureless space. While this may have arisen from the need to provide an abstraction to enable its efficient use, this is not the actual case (Hansen & Nissenbaum, 2009). While a consensus on the true nature of cyberspace remains elusive, the components that form the unique geography of the domain may be divided into three (3) primary layers: Physical, Syntactic, and Semantic (see Figure 1) (Libicki, 2010).

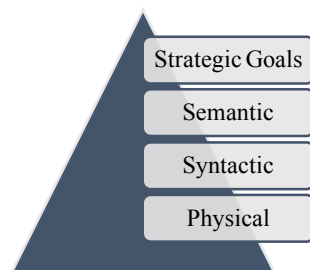


Figure 1: Layers of cyberspace

The Physical layer refers to the underlying infrastructure that support the generation, transmission, and storage of electro-magnetic signals (e.g. servers, cables, computers, etc.). In contrast, the Syntactic layer is comprised of codes and protocols that enable the proper construction, manipulation, and transportation data. Despite the popular notion that cyberspace exists independently of the physical domain, it is only at this layer that such a notion is validated. Finally, the Semantic layer allows for the transformation of the data into meaningful information in support of human endeavors (e.g. retail, communication, etc.) (Libicki, 2010). The conversion of electro-magnetic signals into data that is then interpreted into useful information forms the construct that is cyberspace and is thought to be increasingly significant to not only individuals but states as well in support of their strategic interests. As observed by Starr, cyberspace is increasingly becoming an enabler for instruments of national power (Starr, 2009). It is through this logic of interdependency that the coercive potential of cyberspace begins to take shape.

However, despite efforts to secure this domain from threats against its confidentiality, integrity, and availability, it is thought to be continually at risk. Compounding this challenge is its underlying complexity that demands specialized knowledge to manage and has led to the framing of cyberspace as a vulnerable and unknowable domain with the potential of inadvertent disaster (Hansen & Nissenbaum, 2009). The perceived vulnerability stems from the interdependent and interconnected operation of its underlying components that increases the possibility of flaws in both design and operation. Furthermore, its complexity presents additional challenges in addressing these vulnerabilities to the extent that completely mitigating these is highly unlikely. This inability to identify and remedy each and every issue introduces a sense of inevitability such that should an adversary be able to identify an overlooked vulnerability, the domain itself is open to compromise (Dunn-Cavelty, 2013).

As states increasingly become dependent on cyberspace for their strategic interests, its vulnerable and unknowable nature may lead to an inevitable compromise that allows an aggressor to threaten or inflict costs, possibly threatening strategic interests (Dunn-Cavelty, 2013; Gandhi et al., 2011). Furthermore, the coercive potential of cyber operations is enhanced by the offensive advantage that is thought to exist within cyberspace (Saltzman, 2013).

Plainly stated, an offensive advantage signals a shift in favor of offensive actions relative to defense. Such imbalances have often followed the emergence of new military technologies that provide aggressors a decisive advantage. In cyberspace, this is manifested in both the mobility and damage potential of cyber operations because of the interdependence that exists between the different layers of the domain and between cyberspace and a state's strategic interests. The mobility of an operation is manifested in its ability to adversely affect the different layers of the domain. The effects of an operation against the Syntactic layer, for instance, can percolate up to the Semantic layer which ultimately influences strategic capabilities (Saltzman, 2013).

Similarly, the damage potential of cyber operations follows a similar logic. Damage inflicted at the lower levels can rise to higher levels and increases in severity as it rises (see **Error! Reference source not found.**). To provide an example of this process, consider the case of State A and State B.

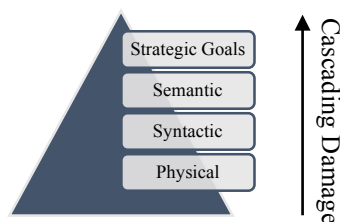


Figure 2: Coercive potential

If State A is heavily dependent on its economic prowess to further its interests, and given that its economy is supported by a digitized banking system, then attempts to coerce State A may involve threats against its economic infrastructure. To this end, State B launches an operation that manipulates or destroys information stored in State A's servers (Syntactic layer). Consequently, the loss of information limits its ability to conduct financial transactions (Semantic layer). If the attack persists, the economic disruption may translate into long term consequences that may affect State A's strategic interests.

The above example surfaces the key propositions that support perceived strategic utility of coercive cyber operations. First, *the likelihood of coercive success increases if cyber operations exhibit a high degree of mobility*. Second, *the likelihood of coercive success increases if cyber operations are capable of inflicting significant damage*.

Unfortunately, this logic of threatening or inflicting costs against an adversary's strategic interests through cyberspace has not borne much success despite the exercise of advanced capabilities that meet the above requirements. Estonia in 2007 experienced an operation aimed at these components that lasted for over two (2) weeks. Despite this unprecedented event, the massive DDoS attack did not lead to any behavioral changes on the part of the target. Similarly, the operation against Iran's nuclear centrifuges that saw the first case of a "weaponized" malware only led them to harden their resolve and develop their own cyber capabilities in turn (Healey, 2016). Interestingly, cases with outcomes that diverge from the above predictions challenge the assumptions grounded by this existing framework.

Vulnerability and Perspective

While the empirical evidence does indeed indicate increased dependence on cyberspace in conjunction with the continued presence of exploitable vulnerabilities, the limitations of existing explanations for coercive success rests on a generic perception of the domain. While the mechanism described above is logically sound, its assumption that cyberspace is valued uniformly across states is unfounded. In the context of coercion, understanding the value placed on certain assets relative to their strategic importance is crucial for success. As noted by Pape, the successful application of coercive threats or action rests on the ability to discern the vulnerabilities of a target such that its execution hinders an adversary's ability to meet its political and/or military objectives (Pape, 1996). This suggests that an aggressor must have knowledge of how an adversary values its assets.

With respect to cyberspace, little has been said regarding variations in the perception. These differences, however, are apparent in definitions of cyberspace across states. Russia, for instance, views it as the “area of activity related to the formation, creation, transformation, transmission, use and storage of the information affecting...the individual and social consciousness...” (NATO CCDCOE, 2016). In contrast, the United States treats it as “a global domain within the information environment consisting of the interdependent networks of information technology infrastructures and resident data...” (NATO CCDCOE, 2016). Although similarities exist between the two – notably the emphasis on technology – a key difference lies in the fact that the former endows it with a degree of social significance. Variations such as these suggest not only differing views as to the nature of the domain, but the possibility of incompatible valuations between actors.

To account for the emergence of these differences, Hare initially applied Buzan’s model to map state characteristics against possible threats to cyberspace. Initially, the model takes into consideration (military) power (P) and socio-political cohesion (SPC) as key determinants. Hare argues that states with high levels of SPC are generally affected by cyber operations aimed at the Syntactic and Semantic layers – with an emphasis on the former. This is due to their dependence on cyberspace for economic stability and communication. In contrast, those with low levels of SPC, are consistently vulnerable to de-stabilizing political actions which are associated primarily with the Semantic layer and the manipulation of information. The role of power in these cases is to broaden or narrow the range of vulnerabilities expected to include those that may not directly impact the interest of the state (i.e. private individuals) (Hare, 2010).

Socio-Political Cohesion	CSO	Vulnerability	Primary Affected Layer
High	Positive	Attacks against critical infrastructure	Syntactic
Low	Negative	Destabilizing political action	Semantic

Table 1: Objectives and vulnerabilities

Hare’s model is later simplified by Rivera who omits the dimension of power and relates state vulnerabilities to specific objectives with respect to cyberspace. He argues that states may be classified based on their respective Cyberspace Security Objectives or CSOs. These represent the goals of states in securing cyberspace to enable it to meet their strategic interests. States with Positive CSOs (P-CSO) conduct actions that treat cyberspace as a domain for liberal democratic values. This entails ensuring availability of information and open discourse, thus enabling commerce through the domain, and combating crime. Inversely, those with Negative CSOs (N-CSO) engage in actions that limit the flow of information to ensure that the interests and stability of the regime is not threatened challenged. State initiatives such as censorship, policing social-media, and the like are representative of such (Rivera, 2015). With respect to both, disrupting these objectives or threatening their successful implementation may negatively impact the strategic interests of states. Consequently, this meets the requirements of coercive success as previously mentioned.

The arguments presented in this section point to two critical differences with respect to the prevailing understanding surrounding coercive cyber operations. First, while states are indeed increasingly becoming more dependent on the domain, *the success of coercion rests on*

threatening the appropriate CSO of an adversary. Second, while identifying the appropriate CSO is indeed crucial, each type is reliant on a specific layer of cyberspace. Consequently, the success of coercion rests on operations that adversely affects the appropriate layer of cyberspace relative to the CSO.

With these propositions, two competing accounts for the outcome of coercion in cyberspace are surfaced. On the one hand, coercion may be achieved using advanced capabilities that exploit the unpredictable yet interdependent nature of cyberspace. On the other, success is a function of correctly acknowledging how the domain is valued by an adversary and exercising threats or force accordingly.

Design, Operationalization, Selection

Although support for the alternative account presented herein is best served by generalizing its findings across all cases of cyber coercion, the lack of data to allow for a large-n study continues to plague research in cyberspace. Consequently, the paper adopts a design based on a representative case to demonstrate the feasibility of the alternative propositions. At this point it is crucial to mention that the results presented are not definitive, but rather, serve to demonstrate the applicability of this line of reasoning.

Apart from the overall design, the operationalization of the independent and dependent variables is equally significant. There is no generally accepted measure for either Mobility or Damage Potential. Advanced Persistent Threats (APT), due to their uniquely tailored capabilities, specific target set, and enduring nature exhibit high levels of both Mobility and Damage Potential. Consequently, coercive cyber operations that employ APTs are treated as possessing these attributes. Identifying the CSO of an adversary, on the other hand, involves determining whether the SPC of the said actor is either high or low. High levels suggest a Positive CSO while low values are indicative of a Negative CSO. For these values, the paper employs Rivera's dataset that identifies states with high or low levels of SPC based on the Freedom House Index (Rivera, 2015). Finally, the affected layer of cyberspace is specified based on the characteristics of their respective CSOs. As mentioned previously, P-CSOs focus primarily on the availability and flow of information. This suggests that the Syntactic layer is crucial. In contrast, N-CSOs depend on the manipulation or theft of information. While these may also involve the Syntactic layer, it is ultimately control over the Semantic layer that leads to success. With respect to the dependent variable, the outcome of coercion, the paper refers to the Objective Success field present in the Dyadic Cyber Incident Dataset (DCID) that indicates whether the objective of the initiator (e.g. Disruption, Espionage, or Coercion) was met (Valeriano & Maness, 2014).

Having considered the overall design and variable operationalization, the remainder of the section is dedicated to the case selection. As the paper focuses on state-to-state interactions in cyberspace, the following constraints are placed on selecting the appropriate case. Only instances of state-based or state-endorsed operations are chosen. Only operations targeting state-owned and state-operated assets are included. Operations that affect government and military systems are thus in scope while those involving private industries are excluded. Compellent coercive cyber operations are considered. This restriction to compellent activity is in place as compellence is generally thought of as being more difficult. If the arguments of the prevailing explanation are valid, then the use of highly mobile and damaging operations should make such threats more credible. Finally, cases are selected such that they are representative of the prevailing framework rooted in increased dependence and overall vulnerability of

cyberspace. Should this argument suffice, there ought to be little that the proposed alternative may add to the analysis of the case.

Selection and Analysis

With respect to the requirements for mobility and damage potential, the case of Stuxnet in 2010 is illustrative. Stuxnet – dubbed as the first “weaponized” malware – employed six (6) different vulnerabilities, had the ability to jump the air gap, and could inflict physical damage. Its employment to disrupt Iran’s nuclear programme fits into the narrative of cyberspace as a threat to an adversary’s strategic interests. However, Stuxnet had done little to disrupt Iran’s nuclear ambitions. Later analysis revealed that while its unique feature-set endowed it with significant potential, the actual damage inflicted had not exceeded that of normal operational breakdown (De Falco, 2012; Iasiello, 2013; Lindsay, 2013).

While the post-incident analysis concluded that the overall physical damage caused by Stuxnet was minimal, it is unlikely that Iranian authorities would have concluded with absolute certainty that no other operation was presently threatening the remainder of its cyber infrastructure. Although details regarding the decision-making process at the time is unavailable, this argument is supported by subsequent actions of the regime. First, it is doubtful that Iranian authorities overestimated their own defensive capabilities as well as underestimated the capabilities of the suspected aggressors – later to be attributed to the United States and Israel. The fact that external expertise had been sought out to contain Stuxnet suggests limited capabilities on the part of the regime (De Falco, 2012). Furthermore, despite significant investment in the development of their own cyber capabilities (Ward, 2008), the need for external assistance hints at not only Stuxnet’s complexity, but also surfaces the vulnerability of Iranian cyberspace. Second, if the authorities had indeed felt the attack to be inconsequential, then what need would there have been for their aggressive pursuit of cyber capabilities post 2010?

This rationale suggests that Iran, despite the outcome of Stuxnet, still viewed the operation as significant enough to cause a reassessment of its capabilities. However, not so crucial as to alter its behavior with respect to its nuclear programme. If coercion aims to influence behavior by threatening costs, then it appears that the consequences of Stuxnet had not crossed a threshold. This casts doubt on the validity of the prevailing arguments calling for the use of highly mobile and damaging cyber operations. At the time, Stuxnet represented an advancement in cyber capabilities. One must inquire as to what activities that threaten cyberspace would have been significant enough to compel Iran to change its behavior. The key to answering this question rests on an understanding of how the Iranian regime perceives the domain.

In March 2012, Ayatollah Ali Khamenei issued a call for the creation of a Supreme Council of Cyberspace noting that “dramatic effects” that the growing use of these technologies has had on the social dimension of human life (Khamenei, 2012). After some time, General Behrouz Esbati of the Islamic Revolutionary Guard Corp noted in an interview that cyberspace is composed of three layer: hardware, software, and “brainware”. While the former two are self-explanatory, the later, he argues, refers to the “establishment of goals in cyberspace, activity related to meaning and content, and types of analysis occurring in the cyber domain” (Bucala & Pendelton, 2015). This definition allows the notion of “brainware” to be equated with that of the Semantic layer. Moreover, the general’s views relative to his position suggests the importance of this component with respect to Iranian cyberspace.

Esbati later notes that “the creation and engineering of communications in the Internet can be turned into a threat; for example it is possible for you to Google something and for another individual to manage the meaning of the search results.” The need to manage information cannot be attributed solely to the general as other elements of the Supreme Cyberspace Council are also required to exercise similar tasks (Bucala & Pendelton, 2015). Furthermore, this suggests the presence of a Negative-CSO in effect within Iran. This is not entirely surprising given the level of Socio-Political Cohesion within Iran and the nature of the regime itself.

The preceding arguments suggest the possibility that loss of control over information reflected by the Semantic layer challenges the objectives of the regime. With respect to the paper’s propositions, the coercion of Iran through cyberspace would likely succeed if aimed at hindering their ability to meet their N-CSO through operations aimed at the disrupting control of the Semantic layer. This vulnerability is further reinforced by events prior to Stuxnet reflected by the establishment of Internet censorship in response to political dissent in the early years of the 21st century and in the initiative to develop its own internal network that emerged after the 2009 Green/Twitter Revolution (Golkar, 2011; Rahimi, 2003). These examples support the argument that an understanding of the adversary’s perception of cyberspace and its critical components provides insight with respect to the nature of cyber operations required to achieve coercive success in the domain.

Consequently, it is important to note that predicating the success of coercion on an understanding of the adversary’s vulnerability based on their objectives is not unique to this man-made domain. Pape stresses the necessity of matching coercive threats with an adversary’s actions and objectives. Skillful technical execution does not guarantee success if it does not introduce risk for the target. In the case of Vietnam, Operations Rolling Thunder and Linebacker I and II were properly executed and maximized the full technological potential of the US Airforce. However, the former failed to achieve its coercive goals as it was directed at assets of little value given the objectives of the adversary at the time. In contrast, the latter proved fruitful as it placed pressure on the adversary by threatening assets that it had deemed important at the time relative to its goals – conventional warfare directed at South Vietnam (Pape, 1996).

Conclusion

The adoption of cyber capabilities as an instrument of national policy is well underway. More importantly, the increasing use of cyber operations as a coercive tool is manifesting itself in several long standing and emergent inter-state disputes. Unfortunately, the conceptualization of the dynamics of cyber coercion has yet to mature beyond speculations built on a sense of fear and dread that is encouraged by increasing societal dependencies on these technologies. While there may be some merit in the execution of coercive cyber operations that are fully able to exploit the interdependence between technology and strategic interests, the threat of systemic collapse, on its own, does not result in success. Interestingly, it appears that operations that are simpler and constrain the amount of damage they cause have proven to be the most fruitful.

This deviation from the expectations of the “cyber revolution” thesis calls for the need to further assess the strategic utility of coercive cyber operations. To this end, the paper presents an alternative account built on both the unique geography of cyberspace and varying perceptions of its importance. The paper argues that careful consideration of these features is

more likely to lead to coercive success rather than outright force that is manifested by highly mobile and damaging actions.

While the results presented herein are by no means definitive, this study does raise the need to reassess events in cyberspace in a more theoretical light and emphasizes the necessity of evaluating the applicability of existing theories to study events in this domain. Despite its novelty, the study of cyberspace and its uses should not be built on hype over its characteristics, but rather informed by empirical evidence framed through the lens of applicable theory.

References

- Arquilla, J., & Ronfeldt, D. (1993). Cyberwar is coming! *Comparative Strategy*, 12(2), 141–165. <https://doi.org/10.1080/01495939308402915>
- Bucala, P., & Pendelton, C. (2015). Iranian cyber strategy: A view from the Iranian military. Retrieved from <http://www.irantracker.org/analysis/bucala-pendleton-iranian-cyber-strategy-esbati-interview-november-24-2015>
- De Falco, M. (2012). *Stuxnet facts report: A technical and strategi analysis*. Tallinn. Retrieved from https://ccdcoe.org/sites/default/files/multimedia/pdf/Falco2012_StuxnetFactsReport.pdf
- Dunn-Cavelty, M. (2013). From cyber-bombs to political fallout: Threat representations with an impact in the cyber-security discourse. *International Studies Review*, 15(1), 105–122. <https://doi.org/10.1111/misr.12023>
- Gandhi, R., Sharma, A., Mahoney, W., Sousan, W., Zhu, Q., & Laplante, P. (2011). Dimensions of Cyber-Attacks: Cultural, Social, Economic, and Political. *IEEE Technology and Society Magazine*, 30(1), 28–38. <https://doi.org/10.1109/MTS.2011.940293>
- Golkar, S. (2011). Liberation or suppression technologies? The internet, the green movement and the regime in Iran. *Australian Journal of Emerging Technologies and Society*, 9(1), 50–70.
- Hansen, L., & Nissenbaum, H. (2009). Digital disaster, cyber security, and the Copenhagen School. *International Studies Quarterly*, 53(4), 1155–1175. <https://doi.org/10.1111/j.1468-2478.2009.00572.x>
- Hare, F. (2010). The cyber threat to national security: Why can't we agree? In *Conference on Cyber Conflict* (pp. 211–225). Tallinn: CCS COE Publications.
- Healey, J. (2016). Winning and losing in cyberspace. In *8th International Conference on Cyber Conflict*. Tallinn: NATO CCD COE. <https://doi.org/10.1109/cycon.2016.7529425>
- Iasiello, E. (2013). Cyber attack: A dull tool to shape foreign policy. In *5th International Conference on Cyber Conflict* (pp. 451–468). Tallinn: NATO CCD COE.
- Khamenei, A. (2012). The formation and appointment of members of the Ruling Supreme Council of Cyberspace. Retrieved from <http://farsi.khamenei.ir/message-content?id=19225>
- Libicki, M. (2010). *Cyberdeterrence and cyberwar. Distribution*. <https://doi.org/RAND>
- Lindsay, J. R. (2013). Stuxnet and the Limits of Cyber Warfare. *Security Studies*, 22(3), 365–404. <https://doi.org/10.1080/09636412.2013.816122>
- NATO CCDCOE. (2016). Cyber definitions. Retrieved from <https://ccdcoe.org/cyber-definitions.html>
- Pape, R. A. (1996). *Bombing to win: Air power and coercion in war* (1st ed.). Cornell University Press.
- Rahimi, B. (2003). Cyberdissent: The internet in revolutionary Iran. *Middle East Review of International Affairs*, 7(3), 101–115.
- Rivera, J. (2015). Achieving cyberdeterrence and the ability of small states to hold large states at risk. *2015 7th International Conference on Cyber Conflict*, 7–24. <https://doi.org/10.1109/cycon.2015.7158465>
- Saltzman, I. (2013). Cyber posturing and the offense-defense balance. *Contemporary Security Policy*, 34(1), 40–63. <https://doi.org/10.1080/13523260.2013.771031>
- Schaub, G. (2004). Deterrence, compellence, and prospect theory. *Political Psychology*, 25(3), 389–411. <https://doi.org/10.1111/j.1467-9221.2004.00377.x>
- Schelling, T. (2008). *Arms and influence*. Yale University Press.

- Starr, S. (2009). Toward a preliminary theory of cyberpower. In F. Kramer, S. Starr, & L. Wentz (Eds.), *Cyberpower and national security* (pp. 43–88). Washington, D.C.
- Valeriano, B., & Maness, R. C. (2014). The dynamics of cyber conflict between rival antagonists, 2001–11. *Journal of Peace Research*, 51(3), 347–360.
<https://doi.org/10.1177/0022343313518940>
- Ward, C. (2008). Iranian cyber warfare threat assessment. Retrieved from
<http://www.defensetech.org/2008/09/23/iranian-cyber-warfare-threat-assessment>

Corresponding author: Miguel Alberto Gomez

Contact email: miguel.gomez@sipo.gess.ethz.ch

