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Social Media and Interstate Rivalry: investigating public sentiment as a catalyst for intensified hostility

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Introduction

In writing that "Wars of rivalry are not decided upon by a unitary rational calculator, but by the inexorable movement of an entire society"(2009:216), Vasquez succinctly captures that which this dissertation will endeavor to explore - the importance of the role domestic level politics play in the escalation of interstate rivalry. Whilst Vasquez' research aimed toward establishing criteria for the domestic political conditions most predictive of war, this dissertation is, in comparison, limited to only examining the role of public sentiment expressed on social media and how it may influence the escalation of hostilities between interstate rivals. At the core of both studies however, is the assertion that domestic politics constitute a vital part of the complex casual factors which drive and entrench interstate rivalry, the importance of which is underlined by Valeriano, when he observes that "rivalries are almost impossible to terminate if both the public and leadership do not agree to end the hostile relationship… Domestic opinion can either force the continuation of a rivalry or induce peace"(2013:28-9). Considering the advances in recent years in new internet based social media technologies which have seen the increasing integration of the internet into day-to-day political activity, allowing public expression and interaction in a more instant and open forum than ever before(Farrell,2012:36), it is thus possible to argue that further research into the opportunities facilitated by these new social media platforms for expressing public sentiment, is an area of paramount importance which merits further investigation.

The value of this research thus lies in the both the originality of this study and in its overall aim. As Valeriano notes, there is in an intrinsic importance in studying the causes of interstate rivalries, as rival states are "likely to fight wars and engage in frequent conflict, and they tend to avoid dealing with internal problems and reform. Solving the dilemma of rivalry will remove many

obstacles that impede international progress and domestic harmony. Ending the scourge of rivalry will be an important step towards international peace"(2013:50). Surprisingly, given the importance of this area of research, there remains little research into what Vasquez terms the 'domestic prerequisites for war'(2009:216). As early as 2005 Colaresi suggested that research of "the interaction between domestic and international politics calls for new measures, data, and historical research that capture these concepts"(2005:236), and despite subsequent technological advances enabling the systematic capture of online communications which allow research of this nature, there has not been much further research investigating the role domestic sentiment, facilitated by new social media, may play in dispute escalation.

The central research question of this dissertation therefore seeks to ask how public sentiment expressed on the social media platform Twitter may contribute to the inflammation or escalation of interstate rivalry. In pursuing this question, I aim to establish how the emergence of this new forum for public discussion may feed into existing academic research concerning domestic public opinion and its role in the entrenchment or escalation of interstate rivalries, arguing that negative and hostile sentiment espoused on Twitter can be linked to dispute escalation in the wake of a crisis event within an interstate rivalry. To this end, I draw on cultural theory to examine how the collective motives and identities of a given society may determine its behavior in the international arena, re-contextualizing interstate rivalry within cultural theory's conceptual parameters in order to understand more fully the relationship between the domestic and interstate levels of analysis.

With regards to the structure of this research, I aim to develop my argument across five main sections, conducting in chapter one a review of literature to identify the key themes and issues which will affect my own research, before introducing the theoretical concepts from cultural theory upon which my analysis will hinge in chapter two, whilst developing in chapter three a methodological framework which allows me to explore more rigorously my research question, along with the use of an opinion mining program - SentiStrength - to determine the strength of

sentiment expressed on Twitter. Chapters four and five detail my main analysis of the two cases of interstate rivalry selected in order to test my hypotheses - that of the upsurge in tension arising between People's Republic of China and Japan regarding the purchase of the disputed Senkaku(also known as Diaoyu) Islands in September 2012, followed by the hostilities enacted by the Russian Federation and Ukraine during the annexation of Crimea in late February and early March 2014. Finally, I conclude by examining the wider implications and limitations of my research for the field as a whole.

Chapter One - Literature Review

There are three main bodies of literature which this dissertation draws from in order to address the question of how public sentiment expressed on social media may inflame interstate rivalry - literature surrounding the interstate rivalry concept itself overall, research specific to the domestic level and effects of public opinion on foreign policy decision making processes, and lastly the vast body of work devoted to documenting the rise of new social media platforms, analyzing what effects they may have on citizen participation and engagement with politics, as well as the potential they may provide for homophilous sorting and polarization. This literature review will provide an introduction to the issues and themes presented in past and current academic works which are particularly relevant to my own research, concluding with a more comprehensive exploration of cultural theory and the theoretical parameters which it affords my analysis.

Whilst there are many definitions or categorizations of interstate rivalry - whether strategic, issue based, complex or great power rivalries, as put forth by scholars including Colaresi and Thompson(2002), Diehl and Goertz(2000), McLaughlin Mitchell and Thies(2011), Thompson(2001) and Valeriano(2013) - there exists some common ground in terms of how we may define the intense periods of hostility which characterize these patterns of conflict. Essentially, as Valeriano writes, "Rivalry is defined as constant competition and struggle between two or more actors over some stake or issue with a high degree of salience, but the issues at stake may vary over time"(2013:5). Of all the issues studied within the literature which lead to perceived hostility and enmity with a rival state, the most intractable and conflict prone type of issue are those concerning territory, with states involved in territorial disputes more likely to have intermittent

conflicts(Vasquez and Henehan,2001:134), and as such, are more likely to become rivals(Vasquez and Leskiw,2001:307). This can be attributed to the intransigence of territorial disputes, which if heavily imbued with symbolic or historical cultural qualities, can become highly salient issues over which no party is prepared to concede ground(Vasquez and Valeriano, in Bercovitch et al.,2008:194-5). In such cases as these, the domestic public arguably plays an integral role in sustaining rivalrous sentiment, with the emotive nature of the issues at stake magnified, as Stinnet and Diehl observe, through the symbolic value placed on territories, no matter how small, by politicians and "the domestic audiences they serve", which results not only in full escalation to warfare but also contributes to "the occurrence and escalation of lower levels of conflict"(2001:724). This is an area of particular relevance to the case studies selected for this research, both of which are fuelled, in part at least, by territorial disputes, and will bear further investigation in chapters four and five.

As alluded to within the general overview, hostile public sentiment is regarded as an integral part of the causal mechanisms which drive rivalries between states. Amongst scholars of rivalry research, consensus tends towards acknowledging that domestic structures, support for policy and public opinion are pivotal in the sustenance, escalation or de-escalation of interstate rivals: Diehl and Goertz, for example, incorporate incidences of domestic level political change or 'shocks', to their model of punctuate equilibrium as causal explanations for the possible termination of rivalries(2000:222-5). Rasler et al. emphasize the constraints domestic actors and public opinion place on the actions of a government leader, in conducting policy within interstate rivalries, especially if the leader wishes to retain power(2013:17), whilst Valeriano reports that a shift in the nature of domestic opinion may "either force the continuation of a rivalry or induce peace", since collective sentiments of dissatisfaction, suspicion and hostility are among causal factors which enable rivalries to lock in and fester(2013:28-9).

Interestingly, Colaresi argues that information asymmetries between decision makers in government and the general public play a significant role in determining whether the domestic public affects the continuation or de-escalation of interstate rivalries, writing that "An informed populace is more likely to hold a complex view of a rival because they will be able to draw on information from multiple sources, as opposed to holding simple enemy images"(2005:28). This line of argumentation is particularly relevant to my own research: as I am proposing that whilst social media platforms such as Twitter facilitate the flow of more information from diverse sources that traditional outlets, their use still gives voice to hostile or rivalrous sentiment, and so it would seem at first reading that I am in direct contradiction of Colaresi's stance. However, an issue throughout the rivalry literature reviewed for this research concerns the lack of investigation of how the rise of new social media platforms might affect the generation of public opinion. Conceivably the rise of social media platforms such as twitter, and the rapid decentralization of information they facilitate, has the potential to change this process, and is of huge import to the manner in which domestic public's access information and form opinion or sentiment. The distinction I am making, thus, rests not with the theoretical basis of the work of scholars such as Colaresi, or Vasquez, but with the changing way in which information is obtained, consumed and feeds into the formation of collective public sentiment.

The next key area of literature to review, however, is that of the domestic level of interstate rivalry and wider international relations research, which provides several valuable areas of exploration. A plethora of studies in this field consider the dynamics between domestic regime type, the personality and decision making process of the state leader, the actions of elites and the effect of public opinion, analyzing how each of these factors may interact to shape the course of an interstate rivalry or non-rivalrous conflict. Both Hagan and Mor find that the domestic public play a key role in constraining state policy and the choices or actions of state leaders, acting either as an impetus for conflict or de-escalation(Hagan,1994:191-2; Mor,1997:204-6). Putnam captures the dynamics of

these pressures in his two-level game theory, demonstrating how decision makers are faced with strategic dilemmas brought about by domestic audience demands and international pressures, and therefore must "strive to reconcile domestic and international imperatives simultaneously"(1988:460). This is in line with the works of Fearon, whose 1994 analysis of the role of domestic audiences in escalating international disputes demonstrated that audience costs are critical to the continuation or resolution of interstate conflicts(1994:586-7), and James and Oneal, who quantitatively analyze presidential decision making processes with regards to the use of force across the international, domestic and political level, finding domestic considerations predominant in decisions to use force short of war(1991:321-5).

Hensel too determines the significance of public opinion and sentiment in contributing to the lifespan of an interstate rivalry through his evolutionary model, which builds a theory of rivalry based on the longer historical pattern of conflict, and the cumulative effect this has on the dyad involved(in Thompson[Ed],2001:182-3). By testing this model on a case study - the Bolivia-Paraguay rivalry which culminated in the Chaco war of 1932-5 - he finds that an active segment of both societies simultaneously constrained the actions of the state leaders as well as further complicating the decision making process and diplomatic interaction of both states by adding domestic pressures to the wider pressures felt at the international level(in Thompson[Ed],2001:205-6).

Such studies pose challenging questions around the mobilization of public opinion and sentiment - the first of which relates to the interplay of various domestic factors(for example regime type, societal structures or the openness of the media and accessibility of information) which may make the strength or even existence of public opinion context dependent. Risse Kappen addresses this issue head on, conducting analysis of the role of the domestic public in foreign policy formation across four different states - The United States of America, Japan, France and Germany - each with differing domestic systems and structures, to conclude that in every case, albeit to differing extents, mass public opinion did matter in terms of policy outcomes, despite the differing political and

societal structures(1991:510-11), a result in line with Jervis' study of perceptions and misperceptions in international politics, across differing domestic and international contexts(1967:15).

Indeed, as Mor writes, "Of course, other domestic factors play an important role as well, at times interacting with public opinion and at times overshadowing it"(1997:199), what is essential, however, to my own research is disentangling the role which public sentiment does play in escalating interstate rivalries. Mor himself points out that given the all-encompassing nature of rivalries, particularly enduring rivalries, which require the participation of entire populations, public opinion can be expected to wield significant influence in the rivalry process(1997:199). As such, it is possible to contend that alongside the influence of other factors within the domestic level of analysis, the effect of public opinion and sentiment on interstate disputes remains significant, and worthy of further research.

The second critical issue arising from domestic level research queries the role of the media or news press, politicians and the decision making establishment in the formation of public opinion, and consequently challenges whether or not public sentiment becomes merely a justification for dispute escalation in line with state or domestic opposition party interests(for example Colaresi,2005:237; Risse Kappen,1991:479-80). However, I contend that the rise of information sharing tools provided by new online social media merit a reinvestigation of these concerns - the speed at which news of events can be conveyed through communication platforms such as Twitter may serve, to an extent, to cut out some of the more traditional news or information sources, allowing virtually instantaneous reaction and a forum for discourse to those social media users online. Whether or not this represents an accurate or unconstrained form of public opinion and discourse is a separate and well studied question in itself, bringing into focus the next main area of literature relevant to this analysis - that which concerns the rise of new online social media platforms.

Recent research conducted by Reuter and Szakonyi found, in a case study of the 2011 Russian parliamentary elections, that social media platforms such as Twitter, function as a form of "'collaborative ecosystem' where user-submitted information can spread quickly and compete with official news narratives about fraud"(2015:34). Thus it is possible to argue that in analyzing sentiment generated on a social media platform such as Twitter, I will be able to access a form of public sentiment which is less at risk of the sort of biased mobilization which concerned Colaresi and Risse Kappen, for as Zhou and Moy observe in their study of the interplay between public opinion expressed on online social networks and media framing, though news-based media may act as a source of information for social media users, "it does not set frames for online discourse"(2007:79). In addition, as Sheafer and Shenhav argue, the growth of social media platforms also makes warfare more visible to the domestic public, engaging the users of social media in identity or culturally oriented conflict, such that dispute resolution hinges not simply on traditional diplomacy, but mediated public diplomacy also(2009:276), thereby underlining the importance of domestic sentiment in escalating or calming interstate conflict.

Within the academic discourse surrounding this rise of internet based social media platforms there are several other issues which ought to be addressed when examining the role, and by extension formation of public sentiment. Amongst these, one of the larger challenges for this research proposal is the question of how accurately social media based discourse reflects actual public opinion - for example, concerns have been raised about the ease with which new online communication platforms allow users to find those of similar opinion, and thus generate a process of homophilous sorting which could lead to group entrenchment, an intensification of sentiment or beliefs, and subsequently create a polarization within online discourse which does not represent accurately national public opinion. Whilst studies carried out by Farrell(2012), Lawrence et al.(2010) and Garrett(2009) concerning this phenomenon do not claim to prove that online

communication on social media solely cause this polarization of discourse and associated effects, their results do suggest that these platforms exacerbate the process.

Similarly, in a study based in Northern Ireland, Reilly also found that despite the potential for cross-group contact, online social media communication platforms were being used as a forum for continued in-group communication and out-group stereotyping, such that rather than providing a potential solution to community tensions between Protestant and Catholic groups in Belfast, negative perceptions of the rival community were reinforced rather than challenged, perpetuating sectarian beliefs(2012:386-92; see also Cho and Lee,2008:559-63). The processes of homophilous sorting and group entrenchment or polarization which underlie the results of these studies are thus highly important to my own research - presenting rather stark implications for the generation and intensification of sentiment on social media platforms such as twitter, and subsequent escalation of hostility in interstate rivalries, which will be investigated more fully in my case study analysis.

In short, my area of research sits at the interface between three pivotal bodies of literature represented by; the interstate rivalry cannon, domestic level analysis which examines the roles of public opinion in foreign policy and decision making, and studies concerning the rise and effects of online social media. As the next chapter will detail, engaging cultural theory as an analytical lens for my research allows me to investigate the issues outlined over the course of this literature review in a more integrated manner, examining with precision how public sentiment feeds into collective societal identity and thus influences the decisions and behavior of states involved in an interstate rivalry at the international level.

Chapter Two - Theoretical Overview

Where, then, does the theoretical perspective I have chosen to employ - cultural theory - sit in relation to the literatures reviewed in chapter one? Lebow argues that in order to understand international processes and relations, theorists must understand political processes at all other levels, as "International relations is at the apex of multiple levels of social aggregation, and is significantly influenced, if not shaped, by what happens at other levels"(2008:1). I have endeavored to explore this interrelatedness in my work thus far, highlighting the role of domestic level pressures in international disputes, yet in applying Lebow's cultural theory to my study of the role domestic sentiment plays in the escalation of interstate rivalries, a more nuanced explanation can be distilled which encompasses all three areas of research in one overarching theoretical concept.

Fundamentally, Lebow's cultural theory draws on constructivist perspectives to offer an explanation of order in international relations based on the interplay of motives and identities, influenced at every level by the human need for self esteem, such that fundamental human drives such as spirit, appetite and reason "give rise to distinctive forms of behavior that have different implications for cooperation, conflict and risk-taking. They also require, and help generate, distinct forms of hierarchy based on different principles of justice"(Lebow,2008:26). These hierarchies sustain order at all levels, from the individual to the international, with order rendered unstable should actors' behavior diverge greatly from the principles which underpin these conceptions of justice, giving rise to conflict(Lebow,2008:26).

Most pertinent to this study, is Lebow's paradigm of spirit based worlds, in which people, collectively or individually, seek self esteem or a sense of self-worth which is based on the established values of the society and is thus best described as a form of standing(Lebow,2008:61).

When driven by motives of honor, and unconstrained by reason, these societies can become "inherently unstable" as actors compete for standing and recognition, with strong incentive to act outwith the rules which govern their acquisition owing to "the relational nature of honor and standing, which makes it a zero sum game"(Lebow,2008:82). Internationally, Lebow observes, this competition for status and recognition translates into repetitive patterns of conflict in which states violate accepted norms or rules in order to attain honor and standing, manifesting as warfare over "substantive issues such as control over disputed territory, but can also arise from symbolic disputes"(2008,66, 71). In writing thus, Lebow in effect hits on the core basis of interstate rivalry, but crucially for this research, both international and domestic processes are regarded symbiotically with feedback existing between every level so that changes "can be dampened or amplified as they work their way through society" because in Lebow's theoretical framework "Order is an open system. None of its key components can be studied in isolation from the rest of the social world, because important sources of instability and change for the components in question can emanate from any of them"(Lebow,2008:55).

Consequently, the formation of collective sentiment and perception has grave implications for the behavioral processes, stability, and propensity for conflict of a society, when understood through the cultural theory lens. Closely related work from Ross, which focuses on the transmission of collective emotion through society, finds the process of group sentiment generation to be exacerbated by new technology and social media platforms, and highlights the pivotal role of new communications technologies in intensifying collective sentiment - which he terms 'affect' - arguing that its generation is enhanced and diffused through communications technologies with consequences for "various issue-areas and at national, subnational, and transnational levels"(Ross,2014:4-5; See also Mercer,2014:524). Research from Cho and Lee vindicates this statement: while assessing the communication potential new social media platforms allow, Cho and Lee found in a study of intercultural group communication online, that although geographical barriers are no longer a problem for communication, cultural and social boundaries remain, such

that flows of information were greatly constrained between intercultural groups in comparison to pre-existing social in-groupings(2008:559-63).

As such, drawing these conclusions together through the overarching conceptual framework provided by cultural theory, it is possible to surmise that collective national sentiment expressed on online social media platforms is susceptible to a form of group think which intensifies hostility towards the out-group or 'other' - in this case the rival state and its citizenry - while inflaming the sense of national identity felt by the social media users - the in-group. Thus, as the need for self-esteem and desire for recognition of national standing or honor solidifies at the group societal level, it has the potential to influence the society's behavior internationally - for example in facilitating the continuation of interstate rivalry. I therefore intend to use Lebow's societal based model of cultural theory to guide my analysis, making sense of the linkages between interstate rivalry at the international level and the expression of collective societal sentiment, as documented on the social media platform Twitter.

Chapter Three - Methodological Overview

This chapter outlines the processes and rationale associated with the main methodology employed in my research. Consequently, I begin with a recap of my research aims and central question, before elaborating on the reasoning behind my hypotheses and methodological approach. The case-study-specific details of this methodology will be discussed alongside research findings in my main analysis sections in chapters four and five.

Research Aims and Question

Following the assertion made in the existing literature that domestic public support is an integral component in prolonging interstate rivalries, I intend to investigate whether there is an intensification of public sentiment(as expressed on social media) towards rival states during rivalry events or crises and if so, what effect this has on government responses within these crises. As such, I intend to measure the strength of rivalry sentiment displayed in specific rivalry case studies on the social media platform of Twitter, and subsequently, attempt to map this sentiment escalation on to the actual government or official state response(operationalized in line with the Correlates of War Project as ranging from: a threat of the use of force; a display of force; actual use of force; or lastly, war) in order to evaluate what, if any, effect it has. Thus, my research question is as follows:

RQ Does domestic public sentiment expressed on the social media platform Twitter, play a role in escalating interstate rivalry?

Rationale and Hypotheses

In following Lebow's argument that all levels of society are interconnected, and change at one level will affect the rest(2008:55), it is possible to assume that any change or inflammation of domestic collective sentiment would in turn have some influence or bearing on the escalation of rivalries at the international level around crisis events. Therefore, during the aftermath of a rivalry event, I anticipate an increase in the volume of tweets discussing the incident. These tweets are expected to exhibit mainly negative sentiment towards the rival state and clamor for an escalatory, retributive response. Further, I would expect to find that as sentiment becomes more negative towards the rival state, and increases in volume, this hardening of attitude is reflected in the stance or action taken by the government in response to the event, perhaps leading to an escalation of hostilities. Ergo:

H1. There will be an increase in the volume and negative sentiment of tweets among the citizens of states involved in an interstate rivalry in response to an event.

H2. Increasing negative sentiment espoused by citizens towards the rival state will act as a push factor for the governing state authority to initiate a hostile and escalatory response [whereby a hostile action, as defined by the Correlates of War Project, may range from: a threat of the use of force; a display of force; actual use of force; or lastly, war].

Method

In order to test these hypotheses I have established a methodological framework which employs social and content analysis software to gauge collective sentiment expressed on the social

media platform Twitter, alongside more traditional methods of policy and literature analysis based on material collected from news outlets and state sponsored websites, with the aim of grounding the social media sentiment analysis within the context of my two interstate rivalry case studies. In combining these methods of analysis I have endeavored to present a fuller examination of the interaction between public sentiment and state policy responses, thereby determining how the two may serve to escalate hostility within an interstate rivalry.

As such, with regards to the actual content sentiment analysis itself, my process of tracing discourse in relation to specific events within my selected interstate rivalries conforms to the following basic framework. The first step in my methodology was to identify a timeline of the rivalry case study focusing on the contentious event selected for analysis, and subsequent pattern of interaction between the rival states[named hereafter, for the sake of clarity, as Rival A and Rival B]. Using the advanced search facilities on Twitter, I then isolated and grabbed all related tweets from within the identified timeframes and relevant rival populations, by searching for tweets containing keywords specific to the rivalry event in the state's official national language, before compiling these tweets into datasets and removing those tweets from news networks and corporations, as these expressed the views of broadcasting organizations, rather than the public.

Next I applied statistical analysis to the datasets to work out the modal baseline number of tweets concerning the issues at the heart of the rivalry uptick and compared the rise in the number of tweets against this baseline and the rivalry event timeline, to establish if number of Twitter users and volume of tweets discussing rivalry incident did increase in the aftermath of the initial rivalry event - instigated by Rival A - prior to a formal response by the opposing state, Rival B. In doing so, I was also able to determine the key phases in which the chain of events played out on Twitter, with the volume and topics of the tweets within the dataset changing as news of the actions taken by Rival A or B authorities flowed through the network. Thus the first analysis phase covered the aftermath of the initial rivalry event and the instigative actions of Rival A, the second phase the response from Rival B, and so on. Overall content sentiment was subsequently measured within
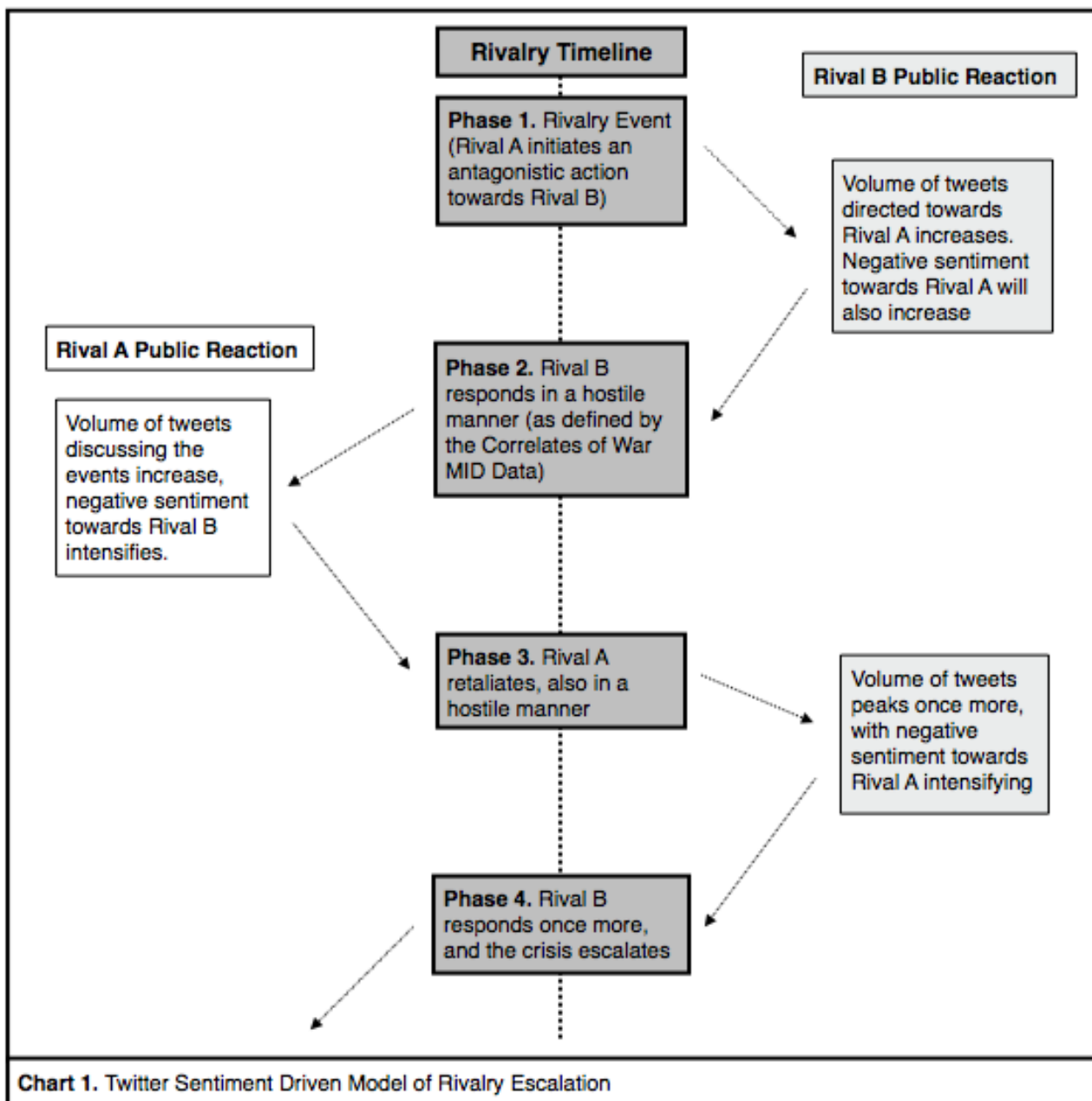
these timeframes by reformatting the relevant tweets for use by SentiStrength software[which is described in more detail below], and running the data through the opinion mining program for analysis.

I then compared the overall sentiment expressed by the hour and collectively in phase 1 towards Rival B's response, utilizing the criteria set out in the Correlates of War Project Militarized Interstate Dispute(MID) Dataset to assess if negative sentiment was indicative of hostile action [where there was: (1)No hostile response; (2)A threat of the use of force; (3)A display of force; (4)Actual use of force; or (5)Escalation to war(Kenwick et al.,2013)]. Following this, I established if there was a further increase in twitter activity during phase 2 - after Rival B's government response - and further hardening of attitudes and rivalrous sentiment on either side by measuring overall tweet volume and content sentiment in the timeframe directly after Rival B's response and prior to any official reply from Rival A(which would then constitute phase 3). The final step was to map any further rise in hostile sentiment to the ongoing rivalry timeline in order to ascertain if state responses mirrored citizen hostility, thus demonstrating a correlation between the intensification of public sentiment and escalation of interstate rivalry. Chart 1, overleaf, demonstrates visually how this pattern of interaction between rival states and publics may operate.

Justification

Case Studies

In selecting the Sino-Japanese and Russo-Ukrainian interstate rivalries as the two case studies for analysis, this dissertation research aims to determine more specifically the role public sentiment played in escalating hostilities by comparing two cases in which conflict manifested in dispute over territories laden with historic connotations, yet which had very different patterns of escalation - one which, at first reading, conforms to the expected model of escalating hostility(China, Japan, and the Senkaku/Diaoyu Islands), and one which did not(Russia, Ukraine

Rivalry Timeline

Rival B Public Reaction

Phase 1. Rivalry Event (Rival A initiates an antagonistic action towards Rival B)

Volume of tweets directed towards Rival A increases. Negative sentiment towards Rival A will also increase

Rival A Public Reaction

Volume of tweets discussing the events increase, negative sentiment towards Rival B intensifies.

Phase 2. Rival B responds in a hostile manner (as defined by the Correlates of War MID Data)

Phase 3. Rival A retaliates, also in a hostile manner

Volume of tweets peaks once more, with negative sentiment towards Rival A intensifying

Phase 4. Rival B responds once more, and the crisis escalates

Chart 1. Twitter Sentiment Driven Model of Rivalry Escalation

and the Crimean Peninsula), thereby gaining a better understanding of what casual factors were at play in regulating these patterns(or lack) of escalation.

These cases are intended to provide some insight into the relatively new role of social media in facilitating collective public sentiment as well as examining its associated effect on rivalry escalation. Many recent academic works highlight the importance of internet based sentiment and opinion on pressuring governmental policy even in states with repressive regimes - for example, King et al.(2013) detail the vast lengths the Chinese authorities go to, in censoring not just government-critical expression on social media, but any comments which have the potential for

social mobilization, whilst Oates argues that the persecution of prominent online activist Alexis Navalny by the Russian Government, demonstrates how seriously online discourse challenges the state actions(2014:288) - thereby suggesting that the effects of nation-wide communication and group opinion formation does indeed have some bearing on governmental decision-making processes, and is applicable for study across differing state and regional contexts.

Thus, despite a differences in the domestic state context and, indeed, number of Twitter users(particularly in the China case, for which estimates of the number of active and regular Twitter users fluctuates around 18,000 on the mainland, due to technical difficulties these users encounter in trying to bypass the government firewall, which has blocked Twitter in China since 2009(Ng, 2013)), these disparities should not impair comparative analysis, as the critical measurement of sentiment focuses not on cumulative, but mean sentiment scores per hour, in order to build a picture of roughly how collective sentiment varies across the states' Twitter users. Further information elaborating on the history and current dynamics of both rivalries, however, is detailed in Chapters four and five.

Twitter

Twitter features in a number of sentiment analysis studies, not simply due to the vast number of active users worldwide - which currently stands at around 284 million monthly active users(Statista, 2014:online) - but attributable also to the potential for greater accuracy in sentiment analysis research in comparison to sentiment analysis conducted in other social media platforms. As Abassi et al. note in their recent study of sentiment analysis measurement, "Interestingly, errors pertaining to mixed sentiments were very rare," on Twitter "despite constituting a major problem in other social media channels such as web forums and blogs. This finding suggests that the 140-character limit presents some limitations on users' abilities to articulate complex opinions encompassing multiple opposing sentiments"(2014:828). As a result, it is possible to argue Twitter

represents the most accurate social media platform on which to carry out sentiment analysis research.

Software

In using a Twitter's own advanced search archive, there are immense benefits in that preparing a sample set of tweets for analysis can be carried out across several languages, within very specific time frames, geographic areas, and pertaining to key phrases. As such, isolating twitter content to analyze only relevant domestic public discourse allows for more accurate findings and renders feasible the methodology as described above.

The opinion mining program I have selected - SentiStrength - is a standalone tool which allows translation and accurate measurement of sentiment in short text statements, as well as large quantities of data. SentiStrength measures the strength or depth of sentiment against set topics or keywords, and can be adapted to operate in several languages, so that I can, for example, analyze strength of sentiment in tweets written in Japanese pertaining to the Senkakus, specifically measured against key phrases or words such as Senkaku nationalization.

Sentiment is then operationalized on a scale ranging from -1(not negative) to -5(extremely negative) and 1(not positive) to 5(extremely positive). Statements are measured on both scales for maximum accuracy, with the final measurements combined to give an overall sentiment score consisting of:

4: extremely positive **-1**: slightly positive
3: strongly positive **-2**: positive
2: positive **-3**: strongly positive
1: slightly positive **-4**: extremely positive
0: neutral

SentiStrength has been peer-reviewed in many academic journals, and favorably received with consistently high accuracy levels(Abassi et al.,2014:825; Lai,2010:4-5; Saif et al.,2013; and

Thelwall et al.,2012:168) which makes it an appropriate choice for my research. Lai, in particular,

highlights the advantages of using SentiStrength as unlike many other opinion mining programs, it

is lexicon based software originally designed around MySpace "a social-networking service with a

demographic similar to Twitter," which thus renders it the most suitable program for analysis of the

kind of informal language and text commonly used on a social media platform such as

Twitter(Lai,2010:2).

Chapter Four - Sino-Japanese Case Study

Introduction and Rivalry Overview

Klein et al, in their updated dataset of interstate rivalries, define China and Japan as having two pronounced periods of enduring interstate rivalry [whereby states are involved in upwards of 6 MIDs within 20 years] producing between 1873 and 1958 34 MIDs, with a further 7 MIDs between 1978-1999(Klein et al.,2006). This long and often fraught relationship has been the subject of much study, in recent years with a note of urgency, as academics warn of the grave implications for world-wide stability, should the world's second and third largest economies escalate to full warfare(Calder,2006:129; Fravel,2010:41; and Hollihan,2014:245). Indeed, it is this legacy of negativity and conflict which He suggests must be resolved if future Sino-Japanese cooperation is to be secured(2008), whilst scholars such as Koo(2009) argue, more optimistically, that increasing economic interdependence restricts the scope of both states for any serious military escalation, and will continue to do so.

Although there have been many contentious issues between China and Japan throughout their long history of rivalry, this dissertation focuses on the manifestation of the Sino-Japanese rivalry in conflict over the disputed Senkaku/Diaoyu Island territories during September 2012. The Islands themselves, as Hollihan notes, consist of a "chain of eight small unpopulated islands in the East China Sea," located "about 200 nautical miles east of mainland China, and about 200 miles southwest of the Japanese islands of Okinawa," and claimed by both states(2014:1). While the control of the Islands has long been a source of contention, Smith argues that the issue has become more charged in recent years, as China's military and political power grows(2013:28). Certainly, in the year preceding the Japanese Government's purchase of the Islands alone there was a number of

incidents which stoked tensions, including various attempts by Chinese and Japanese citizens to swim to the Islands and raise their national flags in protest; an appeal which was launched by the Tokyo Governor, Ishihara, to buy the Senkakus from the owners to establish fully Japanese sovereignty over the Islands, causing the Chinese Government to lodge an official complaint with Japan; and finally culminating in the decision to nationalize the territory, at a cost of 2.05 billion yen(Hollihan,2014:1-2). This decision sparked a period of sharp escalation in hostilities between the 11th and 18th of September, with several displays of Chinese military force as military surveillance vessels sailed through the Japanese waters surrounding the Islands, in addition to large scale anti-Japanese protests across the nation, during which Japanese businesses and embassies were attacked(Hollihan,2014:1-2; Smith,2013:27-8).

Of particular relevance to this research, however, and detailed more fully below, are the three key days surrounding the incident which instigated this rivalry upsurge; the 10th of September - the day upon which Japan announced it was to nationalize the Senkaku/Diaoyu Islands, the 11th of September - when the purchase order officially came into effect, and the 12th of September - when the pattern of retaliatory escalation was broken on the Japanese side, despite ongoing acts of hostility from the Chinese authorities.

Case Specific Methodology

To aid my analysis I have divided the period between the 10th and 12th of September into seven key phases, as shown below in Table 1, the timings of which run in hourly accordance with news of the rivalry events breaking on Twitter, so as to best analyze sentiment towards each specific event.

Table 1. Sino-Japanese Rivalry Event Chronology	
Phase 1 [00:00-17:00 10 September]	This is the period in which the rivalry upsurge was instigated, as Twitter users reacted to the news that the Japanese Government intended to nationalise the Senkaku/Diaoyu Islands(BBC news,2012:online).
Phase 2 [17:00-23:00 10 September]	Phase 2 marks the initial Chinese retaliation - as China announces it is to send two surveillance ships to the waters off the Senkaku/Diaoyu Islands (constituting a threat of military force as per MID data) and issues a statement insisting it will denouncing the planned nationalisation of ancient Chinese territory (BBC news,2012:online).
Phase 3 [23:00-06:00 10-11 September]	The Japanese Government do not halt the purchase process, and the nationalization of the Senkaku/Diaoyu Islands comes into effect, constituting the third phase of escalation (New York Times,2012:online).
Phase 4 [06:00-19:00 11 September]	China further escalates hostility with a display of military force, as two Chinese surveillance ships arrive in Japanese maritime territory, and sail through the waters surround the Senkaku/Diaoyu Islands (BBC news,2012:online).
Phase 5 [19:00-04:00 11-12 September]	Japan's coastguard sends vessels to patrol the area, in its own display of force, and issue a statement which denies the presence of Chinese ships in its territorial waters(BBC news,2012:online).
Phase 6 [04:00-18:00 12 September]	Chinese military surveillance ships re-enter the waters surrounding the Senkaku/Diaoyu Islands, signifying a further display of military force, and bipartisan delegation visits between China and Japan are called off (BBC news,2012:online)
Phase 7 [18:00-00:00 12 September]	The US Secretary of State releases a statement urging calm and deescalation, while news breaks of anti-Japanese protests in Hong Kong and mainland China (BBC news,2012:online). However, as there is no further Japanese retaliation or escalation, I define this pattern of mutual rivalry escalation as broken.

Alongside this, the only further case-specific-methodologies to report on concern the keywords and search parameters used to isolate the relevant tweets, in addition to detailing the baseline volume of tweets for both datasets. To generate the Japanese twitter dataset I used

'Senkaku' as my Twitter search keyword, setting the search location to Japan, and language as Japanese. This generated a dataset of 1212 tweets between the 10th and 12th of September 2012, which I then reformatted for SentiStrength use, altering the SentiStrength sentiment classification data to measure these tweets against the issue's subject – Senkaku nationalization – as well as China, Chinese, and the Chinese Government. Chinese tweets were more difficult to collect, given the use of foreign servers by Chinese twitter users in order to bypass the block on Twitter within China, thus my Chinese dataset is much smaller, containing only tweets which I could verify as from Chinese Twitter users - which contained the search-word, Diaoyu, and were written mainly in Chinese, generating an overall dataset of only 119 tweets. Classification measurements on SentiStrength were altered to measure against Diaoyu nationalization, Japan, Japanese and Japanese Government.

In order to calculate the twitter activity baselines, I determined the modal lower-range numbers of tweets for each dataset, establishing the baseline for China(29 hours of the 72 in the period analyzed) as ranging between 1-3 tweets per hour[henceforth t.p.h] with between 2-6 t.p.h(26 hours of 72) for Japan.
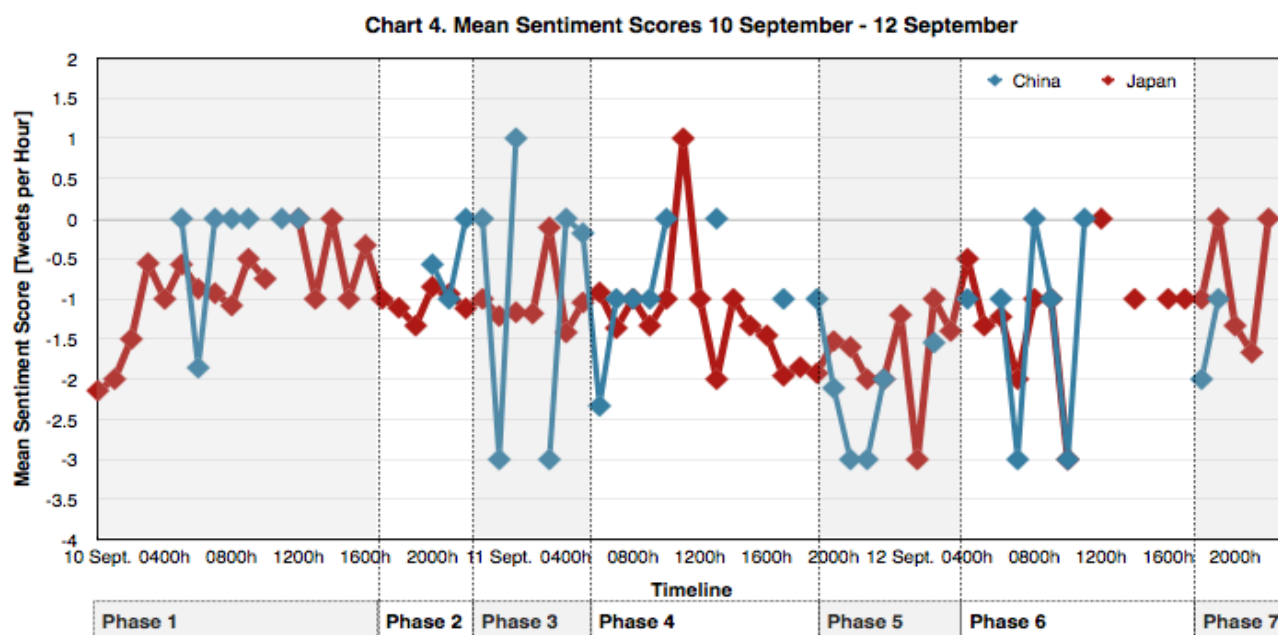
Findings

As predicted by Hypothesis 1, both Chinese and Japanese tweets increased in volume in response to the event that triggered the crisis which is the focus of this study - the nationalization of the disputed Senkaku/Diaoyu territories by the Japanese Government. As is illustrated in Chart 2 overleaf, the volume of Chinese tweets increased most prominently from the baseline level of between 1-3 t.p.h. in phases 1, 3 and 5 - namely the periods in which the Japanese Government was active; firstly in revealing plans to nationalize the Senkaku/Diaoyu Islands(7 t.p.h. at peak levels), then in finalizing the purchase(11 t.p.h.), and again in denying the presence of two Chinese surveillance ships in Japanese maritime territory(12 t.p.h.).

Chart 2 - Volume of Tweets 10 - 12 September 2012

Conversely, the volume of Japanese tweets(shown in Chart 3 below), increased substantially

mainly in the periods in which the Chinese authorities issued hostile responses; in phase 2, where

China threatened the use of force - announcing it was to send two surveillance ships to the

Islands(tweets rose from the baseline of between 2-6 t.p.h. to 57); phase 4, when the Chinese ships

arrived in Japanese territorial waters(123 t.p.h.); and in phase 6 where Chinese ships re-entered

Japanese territorial waters in a further display of force(66 t.p.h.). Across these phases of the rivalry

a pattern emerges of both Chinese and Japanese citizens' twitter reactions increasing in response to

the actions taken by the rival, thus fulfilling the first requirement of the first hypothesis.

Chart 3. Volume of Tweets 10 - 12 September

Hypothesis 1 also, however, predicts an increase in negative sentiment in response to the events surrounding a period of crisis within the rivalry. Analysis of the mean collective sentiment expressed hourly on twitter for both China and Japan found the sentiment expressed towards the rival state over the contested issue to be negative for the majority of the timeframe studied as demonstrated below in chart 4.

As with volume of twitter activity, however, sentiment can be seen to increase in negativity towards the rival state at key points in the timeline: Chinese negative sentiment intensifying to -2(negative) in phase 1, peaking more sharply at -3(strongly negative) in phases 3 and 5.

Japanese negative sentiment towards China did not, on the whole, intensify as strongly as Chinese sentiment did, maintaining a more constant level of -1(slightly negative) and increasing generally only to -2(negative) in response to actions taken by rivals China in phases 2, 4 and 6. A further peak of -3(strongly negative) took place in phase 5 shortly after the intensification of Chinese negative sentiment, with a similar pattern emerging in phase 7. Overall, though the level of sentiment between publics varied, these findings also vindicate hypothesis 1, with both volume and negativity increasing in response to the events following the nationalization of the Senkaku/Diaoyu Islands.

Chart 4. Mean Sentiment Scores 10 September - 12 September

Hypothesis 2, which predicts that increasing negative sentiment will act as a push factor in favor of dispute escalation, is merely partially fulfilled by the findings presented above. Chinese negative sentiment increases consistently prior to each move made by the Chinese Government, from the announcement of the deployment of military force to the actual displays in phases 4 and 6 themselves, indicating that it is conceivably a push factor in the decision making process. Japanese sentiment, on the other hand, largely remains only slightly negative, hovering around the level of -1 throughout much of the period studied, thus failing to account for the lack of Japanese escalation after the second display of force by China in phase 6, and further news of anti-Japanese protests in phase 7. However, by reexamining mean sentiment as a measure of each phase instead of each hour, a more compressive picture emerges which highlights the trend of decreasing Japanese negative sentiment from phase 5 onwards.
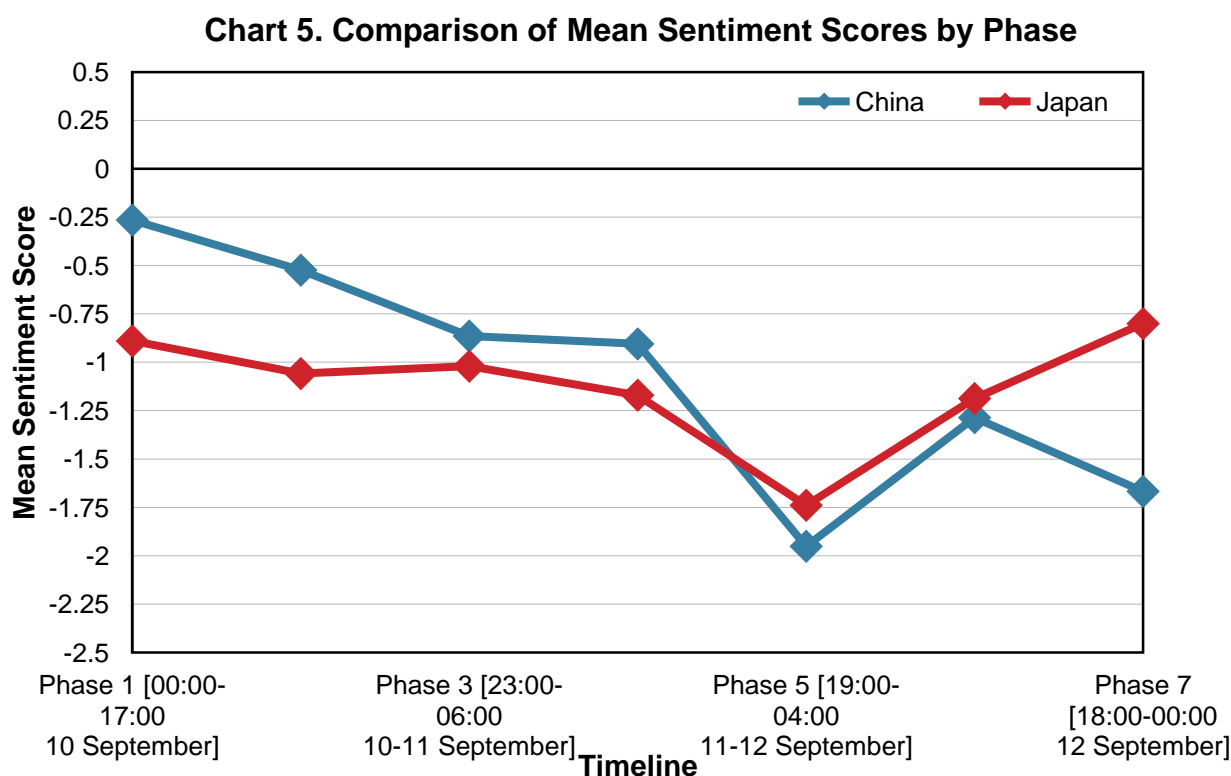
Chart 5. Comparison of Mean Sentiment Scores by Phase

Table 2. Comparison of Mean Sentiment Scores*

	China	Japan
Phase 1 [00:00-17:00 **10 September**]	-0.265	-0.890
Phase 2 [17:00-23:00 **10 September**]	-0.524	-1.058
Phase 3 [23:00-06:00 **10-11 September**]	-0.722	-1.020
Phase 4 [06:00-19:00 **11 September**]	-0.905	-1.170
Phase 5 [19:00-04:00 **11-12 September**]	-1.951	-1.739
Phase 6 [04:00-18:00 **12 September**]	-1.286	-1.187
Phase 7 [18:00-00:00 **12 September**]	-1.667	-0.8
Mean Sentiment Scores between 10-12 September	**-1.046**	**-1.123**
[Data based on Mean Hourly Sentiment Scores - see Appendices 2 and 3 for full breakdown]		

Thus, in light of this trend it is possible to assume that as collective sentiment becomes less negative, it is also hugely reduced as push factor for further hostile escalation on the Japanese Government's behalf, whereas collective Chinese sentiment, which began less negatively, trends downwards overall, continuing to favor further dispute escalation. As such these results can loosely be described as conforming to hypothesis 2.

Discussion

How, then has the collective sentiment expressed on twitter influenced or been indicative of the patterns of escalation established by the above analysis in the Senkaku/Diaoyu Island dispute? Returning to the conceptual framework provided by cultural theory, it is significant that both China and Japan are cited by Lebow as examples of spirit-based societies, which are driven by the need for self-esteem to seek national standing and honor(2008,490,503). This pursuit of standing and honor leads to competition, as these concepts are inherently relational, and consequently

competition along these lines has a propensity to be manifested at the international level in disputes over something tangible such as the control of contested territory(Lebow, 2008:69), as in this case - the Sino-Japanese interstate rivalry upsurge triggered by renewed dispute over the Senkaku/Diaoyu island territories.

Thus, the continued pattern of escalation and negative sentiment expressed in Chinese tweets can be better understood in terms of a slight to national conceptions of honor and standing - as Lebow observes, "Loss of honor is intolerable" to spirit-driven actors and societies, such that "even certain death is unlikely to deter them from action intended to avoid it"(2008:538). Moreover, as Muarai and Suzuki point out, often "the Chinese view the Japanese claims on the islands as a legacy of the Sino-Japan Wars, and thus they are constant reminders of a bitter history of conquest"(in Hollihan[Ed],2014:170). The loss of this territory is therefore all the more potent, and with reference to the research examined in the literature review, more difficult to resolve and more prone to escalation(Vasquez and Valeriano in Bercovitch et. al.,2008:194-5; Stinnet and Diehl,2001:724). Consequently, for Chinese society, and by extension China itself as a state actor, the loss of territory and prestige constitutes a national humiliation to be avenged, while for Japan, on the other hand, in gaining the disputed territories desired by their rivals, the drive for standing and honor can be seen to be fulfilled, accounting in part for a less pressing desire for dispute escalation.

The second major insight to be gained from cultural theory concerns order, which is central to understanding behavior in the international sphere, with disorder at any one level - whether state or societal - influencing actions at the other levels(Lebow,2008:55) and, as such, rendering domestic sentiment and audience costs hugely important to dispute escalation or resolution. Faced with the kind of national humiliation imbued by symbolic historical connotations, as described above, research indicates that responses from citizens can actually be more powerful when expressing group sentiment, especially when a perceived insult or attack is aimed towards the in-

group- in this case the nation- rather than the individual(Mercer,2014:526). Scholars such as He(2008) write along similar lines, arguing that the flare up of disputes of this kind, with such strong historical links, enhances mutual threat perceptions in addition to creating collective emotional pressure for escalatory, hard-line government policies. This fits almost perfectly to the Sino-Japanese case, where, as Smith notes, the legitimacy of the Chinese Government "is bound up with its perceived role as the stalwart defender of national interests" particularly, historically, against Japan(2013:133), which makes it extremely difficult for any sort of conciliatory approach to relations to take place.

Not only is this process of collective sentiment formation exacerbated by historical legacies and the dynamics of group thinking, it can be further intensified, both in terms of the number of participants and strength of sentiment expressed, as Ross notes, by surges in emotion "where public events intensify interaction among large numbers of people" becoming "emotionally significant because they intensify social interaction and concentrate emotional energy across an audience of coparticipants"(2014:47; see also Lebow,2008:55), a phenomenon which is facilitated by the increasing ease of communication provided by social media platforms such as Twitter. Indeed, Feng and Yuan, and Murain and Suzuki, in their respective studies of online sentiment and nationalism in China and Japan, argue that online social media platforms provide a space for strongly nationalistic and hostile perspectives not always available in the mainstream media, triggering homophilous sorting, and assisting intense group opinion and sentiment formation(in Hollihan[Ed],2014:134;181). Fravel too cites the impact of domestic audience costs on the continued hostility of Sino-Japanese relations, significantly emphasizing the role of Chinese social media users in applying pressure by branding as traitors any who advocate a rethink in Japanese relations(2010:158-9).

Consequently, it can be argued that these studies lend credence to the likes of Hagan and Mor whose work, as discussed in the literature review, highlights the constraints of domestic public in state-level decision-making, whilst at the same time address the acceleration and intensification

social media platforms engender in these processes of collective expression. As a result, it is possible to conclude that in comparison to Japan, China could not afford not to act, and despite the costs associated with escalating the dispute, most notably in undermining the work the Chinese Government has thus far put in to presenting itself as a benign and peaceable rising power(Fravel,2010:151), this escalation still represented overall the least costly option.

Chapter Five - Russo-Ukrainian Case Study

Introduction and Rivalry Overview

According to the Klein et al. updated rivalry dataset(2006), interstate rivalry between Russian and Ukraine began in 1992 and lasted until 1996, with a total of 5 MIDs, thus rendering it a proto, or developing rivalry. Events surrounding the annexation of Crimea in 2014, and the wider ongoing conflict in other regions thereafter, however, can be seen to constitute a rivalry resurgence, and as such, form the area of study for this research.

Although this case study, similarly to the Sino-Japanese rivalry uptick examined in the previous chapter, concerns a manifestation of interstate hostility in conflict over a disputed territory, the conditions and context of this conflict are very different. Unlike the Sino-Japanese case, this rivalry upsurge was instigated not by an event solely concerning the disputed territory, but by the removal of the pro-Russian Ukrainian Government led by Viktor Yanukovych after several months of anti-government protests, dating from November 2013 and culminating in the establishment of a new Ukrainian Government intent on distancing relations with Russia in favor of moving to join the European Union(Reuters,2014:online), whilst angering large segments of Russian society for whom Ukraine was perceived as 'Little Russia' an historic part of Russian territories, not an independent state in its own right(Kappeler,2014:49).

Secondly, the Crimean peninsula is a populated territory, with the ethnic composition of its population only adding to the complexity of the territorial claims - census data from 2001 shows that although across Ukraine only 22 per cent of the population were ethnic Russians, in Crimea the proportion was much higher, with approximately 58 percent ethnic Russians, 24 percent ethnic Ukrainians and 12 percent Crimean Tatars(Kappeler,2014:78; Sasse,2007:6). As Sasse notes,

the "multiethnicity of Crimea is reinforced by deeply rooted symbolic, literary, and historical memories that provide ample material for ethnopolitical mobilization and exclusive claims to the territory"(2007:6). Indeed, as Kappeler argues, attempts to strengthen independence from Russia, is often viewed as an exogenous threat to Russian culture and history, not to mention the Russian populations within Ukrainian territory(2014:48-9), which could therefore account for Russia's willingness to escalate rapidly towards the use of military force in what it perceives as its own immediate area of interest.

In short, my analysis will seek to examine if collective public sentiment explains any of the differences of this case study to the last, where despite the initial covert invasion of Crimea on the 27th of February and subsequent open occupation by Russian forces from the 1st of March, both the Ukrainian forces stationed in Crimea and Kiev Government, did not resist this act with any hostile retaliation or escalation, instead eventually withdrawing from the Peninsula on the 24th of March 2014(Reuters,2014:online).

Case Specific Methodology

The period of analysis for this case-study is shorter(detailed overleaf in table 3), consisting of only three phases which cover the main periods of (1)event initiation, (2)first escalation, and (3)second escalation, from which point hence, the Ukrainian government fielded no military opposition to the Russian invasion of Crimea, breaking the pattern in this cycle(although it is worthwhile noting that subsequent armed clashes did break out in other eastern regions of Ukraine, these are beyond the remit of this dissertation and will be discussed subsequently).

| Table 3. Russo-Ukrainian Rivalry Event Chronology	
Phase 1 [00:00-15:00 26 February]	Ukraine announces its new pro-western Government, after removing Yanukovych from office(Reuters,2014:online), initiating a period of rivalry escalation.
Phase 2 [15:00-04:00 26-27 February]	Russia denounces the new Ukrainian Government as illegitimate and retaliates, escalating the level of hostility by placing 150,000 troops stationed along the border on high alert, in a display of military force (Reuters,2014:online).
Phase 3 [04:00-17:00 27 February]	The second escalation of hostility occurs, again instigated by Russia, as armed militia bearing Russian military insignia and weaponry occupy Crimea, establishing roadblocks at all entry points to the Peninsula, taking over the airports and Crimean Parliament, over which the Russian flag is raised (Reuters,2014:online). As there is no further hostile escalation initiated by the Ukrainian Government in Crimea, I define this period of escalation as broken.

To generate the Russian dataset, tweets were isolates by a keyword search pertaining to Crimea - "Крым" - specifically in the Russian geographical region, and in the Russian language, culminating in a dataset of 1424 tweets across 41 hours between the 26th and 27th of February. These tweets were then reformatted and run through SentiStrength, with sentiment classification altered to include Crimea, Ukraine, Ukranian, and Ukrainian Government in the lists of measurement criteria. Ukrainian tweets were isolated also by searching for Crimea - "Крим" - within Ukraine and in Ukrainian, in both Russian and Ukrainian, as both are spoken commonly across the state, with the final number of tweets in the dataset reaching 940. These were then measured with a fresh set of sentiment classification measurements which included Crimea, Russia, Russian and Russian Government.

The baselines of low Twitter activity for these datasets fell, for Russia, at between 11-18(4 of 41 hours), and 3-8 t.p.h.(7 of 41 hours) for Ukraine.

Findings

As shown in charts 6 and 7, Russian and Ukrainian tweets both increased in volume in response to the events all phases, from their respective baselines of between 11-18, and 3-8 t.p.h.. However, it should also be noted that the periods in which each state's twitter activity was highest was the period in which the actions of the rival state were inflammatory - such that Russian tweet volume peaked in phase 1(62 t.p.h.), in response to the formation of a new Ukrainian Government, which was largely hostile to what it perceived as Russian Imperialism, and was viewed itself in Russia as illegitimate. Ukranian tweets, on the other hand, tended to peak more highly during the periods in which Russian actions were predominate and escalatory - in phase 2(42 t.p.h.) where Russian troops amassed on the border in a display of force, and during phase 3(50 t.p.h.), the period in which militia forces entered Crimea in uniforms bearing Russian insignia - thereby fulfilling the first requirements of hypotheses 1.

Chart 6. Volume of Tweets 26-27 February 2014

Chart 7. Volume of Tweets 26-27 February 2014
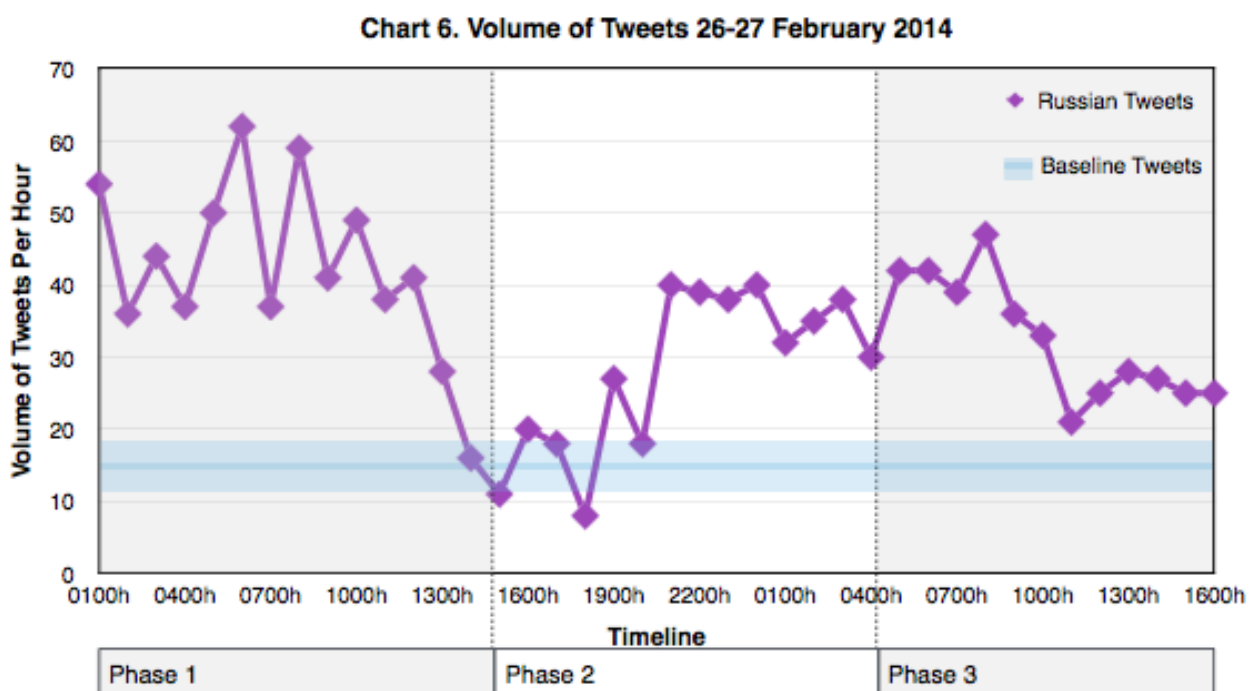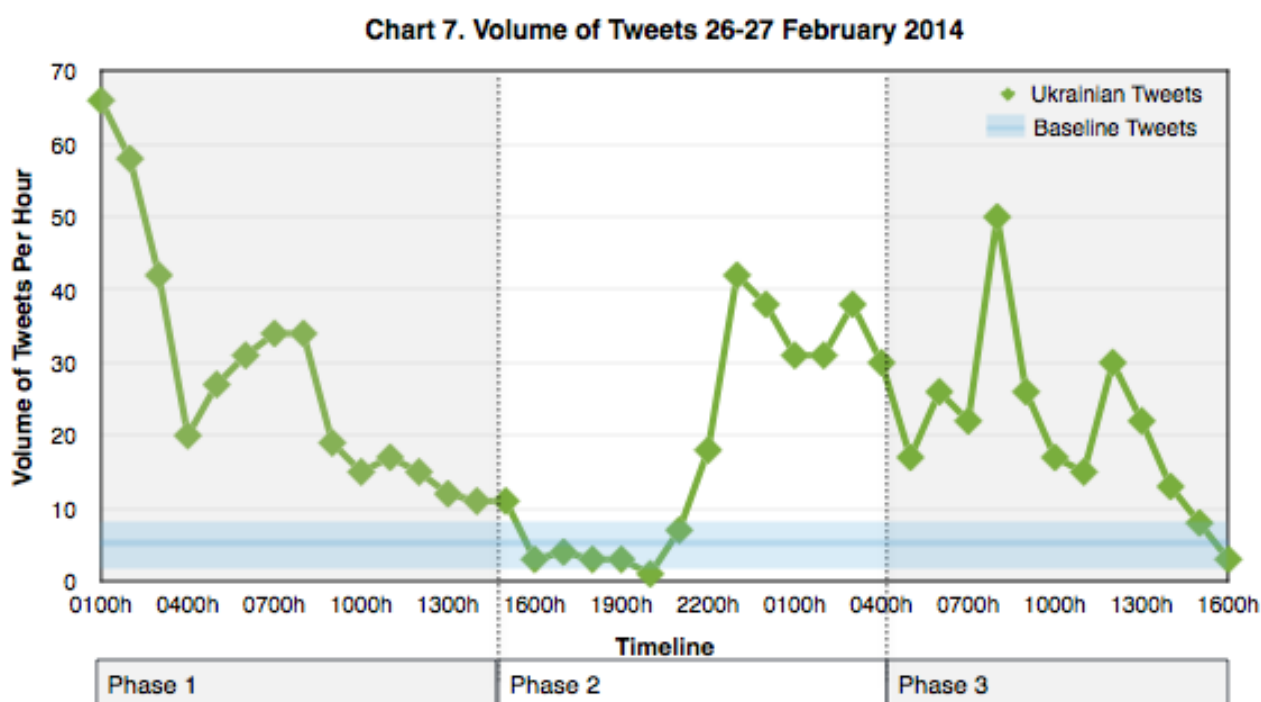
In terms of increasingly negative sentiment, the picture is, as shown overleaf in chart 8, more mixed. Both Ukrainian and Russian tweets responded negatively towards the events in all three phases, with only phase 3 conforming in a clear cut fashion to the prediction that negative sentiment towards the rival state would peak in response to a provocative or hostile act - as evidenced by the Ukrainian tweets' greater overall negativity, moving twice past a score of -2(negative), yet curiously not reaching the level of negative sentiment(-3, strongly negative) found in the Sino-Japanese case study. Across the other two phases sentiment levels remain largely comparable, with merely one exceptional peak each in phase 1 for Ukraine and phase 2 for Russia(also still within the -2.5 and therefore classified as negative). As such, Hypothesis 1 is only partially fulfilled - in that whilst the volume of tweets did increase in response to events instigated by the rival state, negative sentiment did not intensify correspondingly to this increased twitter activity.

Chart 8. Comparison of Mean Sentiment Scores 26 - 27 Feb
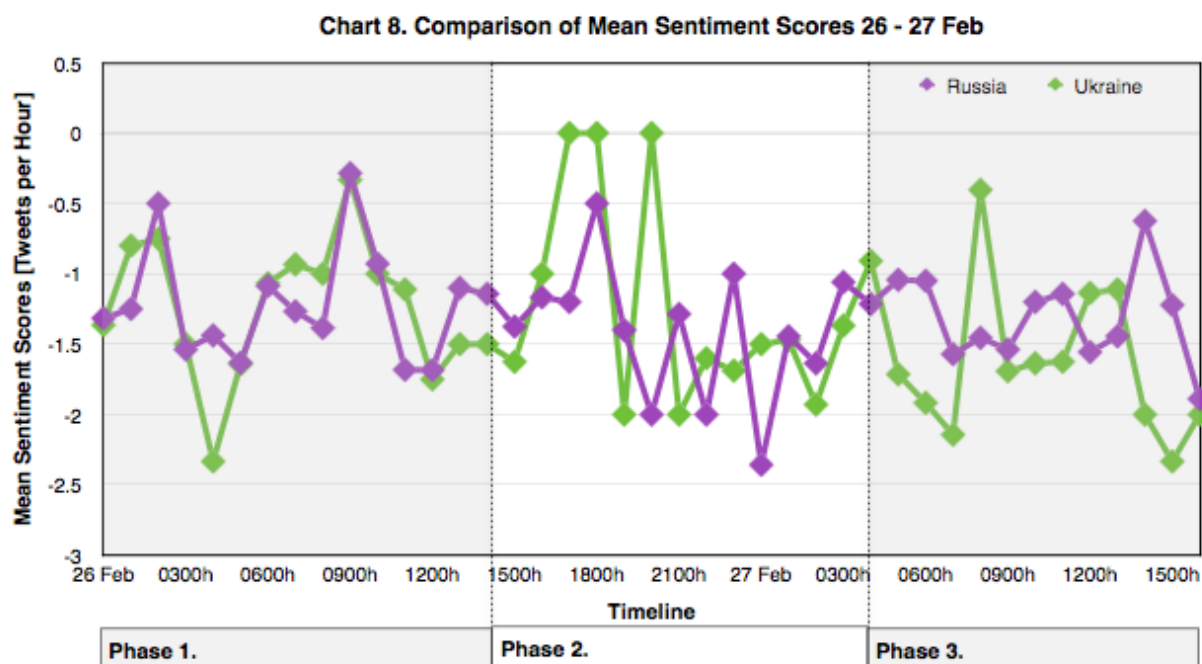
In respect to Hypothesis 2 which predicts that increased negative sentiment will act as a push factor towards escalating hostility levels between states, as displayed overleaf in Table 4 and Chart 9, in calculating the mean sentiment across the three phases it becomes apparent that sentiment levels remain only slightly negative overall, with closely comparable mean scores of -1.31 for Russia and -1.36 for Ukraine. Moreover, mean sentiment scores, despite the disparity in volume of tweets, are very nearly equal for both states in phase 1(with Russia scoring -1.22, Ukraine -1.24), before negative Russian sentiment narrowly outstrips Ukrainian sentiment scores in phase 2(-1.42 to -1.25) and the pattern reverses in phase 3(-1.30 to -1.59), such that Russian sentiment remains at a relatively stable level, whilst Ukrainian sentiment intensifies. Consequently, these results do not conform to Hypothesis 2, as despite the increase(albeit slight) in Ukrainian negative sentiment, no Ukrainian retaliation in Crimea took place.

Chart 9. Comparison of Mean Sentiment Scores by Phase
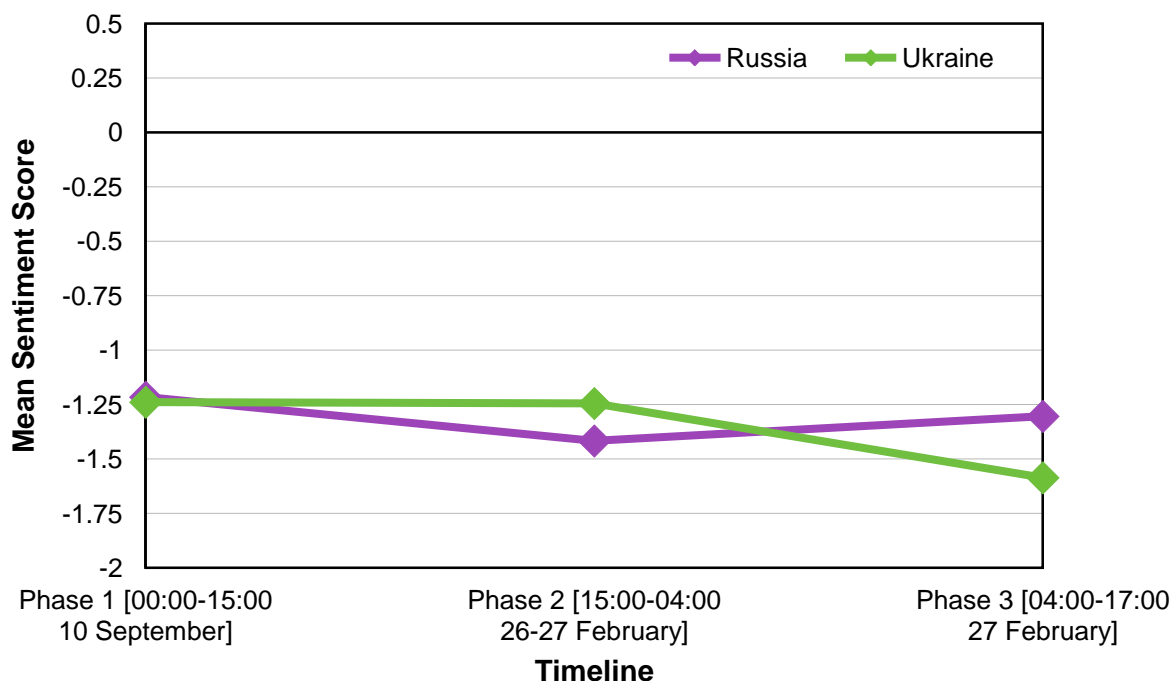
Table 4. Comparison of Mean Sentiment Scores*

	Russia	Ukraine
Phase 1 [00:00-15:00 **10 September]**	-1.22	-1.24
Phase 2 [15:00-04:00 **26-27 February]**	-1.42	-1.25
Phase 3 [04:00-17:00 **27 February]**	-1.30	-1.59
Mean sentiment scores between 26-27 February	**-1.31**	**-1.36**
[Data based on Mean Hourly Sentiment Scores - see Appendices 4 and 5 for full breakdown]		

Discussion

These results, on first interpretation, seem to undermine the main argument of this research -

that collective public sentiment facilitated by social media plays a role in determining dispute

escalation between rivals. Despite the negative sentiment expressed by the citizenry of both rival

states on the social media platform twitter, only Russia continued the pattern of hostile escalation,

as defined by the Correlates of War Project, with firstly a display of military force and then use of

force to achieve its goal. Even more surprisingly, and unlike the Sino-Japanese rivalry upsurge, it was the victorious state, the state which reclaimed the contested territory - Russia - which continued the pattern of hostile escalation.

However, this hardly considers the wider dynamics of the conflict between these states. The rejection of close, subordinate relations with the Russian Federation by the Ukrainian people arguably constitutes an even more profound national humiliation than a loss of historic territory: writing of his paradigm of honor societies, Lebow argues that "status is an actor's most precious possession, and challenges to status or to the privileges it confers are unacceptable when they come from equals or inferiors"(2008:71). Moreover, hostile or aggressive policies or actions are rendered more likely when "leaders or peoples have been previously ostracized or otherwise humiliated by the dominant powers of the system"(Lebow,2008:539). Seen in this light, Russian perceptions of their national standing and honor would be severely wounded by the rejection of a smaller, even inferior state, whose traditions and cultures founded upon their own. Furthermore, in rejecting the influence of Russia in favor of closer ties with Russia's old western enemies, with whom the Cold War had been fought for almost half a century, and who had ostracized and eventually beaten the Russian state in its previous incarnation as dominant power the Soviet Union(Larrabee,2010:33-4), the prevailing context was ripe for aggressive behavior by historical legacies of animosity - indeed, as discussed previously, the erosion of Russian culture in Ukraine was already perceived as a threat in Russia from the beginning of Ukraine's independent statehood(Kappeler,2014:49). Ergo, this more recent rejection of Ukraine's historic Russian cultural ties could thus be viewed as an even larger betrayal.

Ross argues that fear of erosion of identity serves as a focal point for emotional mobilization, facilitated by communication, citing the case of ethnic mobilization in the former Yugoslavia(2014:8). Again, the ease of communication via modern technology can be seen to exacerbate this phenomenon alongside group entrenchment, as pointed at by Reilly(2012) and Farrell(2012) amongst others. It is especially relevant to this case - the annexation of Crimea - as

noted, for example, by Oates, who warns that the online collective sentiment was so strongly in favor of Russian intervention in Crimea that the networks of social and digital medias in Russia were "overwhelmed by waves of patriotism during the armed conflict" such that very few, if any, dissenting views could be heard amidst the inflamed nationalistic sentiment(2014:278). Indeed, although negative sentiment did not peak as sharply, contrary to the Sino-Japanese case, at no point did it move towards a positive score in the Russian or, for that matter, Ukrainian dataset.

None of this, however, answers the question of why Ukraine, despite the presence of negative sentiment scores, did not respond with equal hostile retaliation to Russian escalation. Once more, cultural theory points toward some solutions, for as a theoretical model which highlights the role of a culture, or society, in influencing state behavior it is possible to use Lebow's paradigm to show why Ukraine would not respond to the negative sentiment in a similar fashion as both China and Russia did. To elaborate, cultural theory logic is based on the idea of cohesive societies which have a common or overriding characteristic and hierarchical structure which defines them - in practice they may be a mix of various types of worlds - Spirit, Fear or Appetite - but order remains the central principle which determines how the society acts, as a change in order at one level - individual, societal or state - has implications for behavior at all levels(Lebow,2008:95, 115). Ukraine, arguably, in this period was not functioning as cohesive society, and therefore unable to operate as Lebow's cultural theory would predict - the divergent goals of ethnic Russian citizens desirous of session were not compatible with the cultural characteristics of those Ukrainians whose protests led to governmental change and a move towards closer links with organizations as the EU and NATO. While, as Mizrokhi observes, it is not as clear cut as arguing that ethic Russians living in Ukraine are "exclusively antagonistic to Ukrainian national interests, there is some truth in arguing that the minority envisions the country's national goals differently. The fact that Crimea is the only region in modern Ukraine to enjoy the status of an Autonomous Republic speaks volumes about the idiosyncrasy of its political climate"(2009:1).

Indeed, this is echoed in the works of Solchanyk(1994), Pirie(1996) and Sasse(2007), who variously argue that with its finely balanced multi-ethnicity Crimea is something of a separate entity rather than part of the larger Ukrainian nation. Pirie, for example, proposes that with gradual inter-ethnic marriages and language uses, the south eastern region of Ukraine was, even almost a decade ago, slowly developing a mixed identity with a propensity for ambivalence and instability in the political life of the region(1996:1079). This might go some way towards explaining why Ukrainian collective sentiment was still negative Russia and intensified with the loss of Crimea, yet no counter-action was taken by the days-old new government - the same form of society was not present in Crimea, there was not the same level of group or national thinking and emotional generation, feeding into state processes of decision-making, as in other the other societies in this study, which have less fragmented perceptions of identity and societal interests.

To pose an example, Ukraine is, at the time of writing, embroiled in militarized conflict with Russian-backed separatist in its eastern mainland regions Donetsk and Luhansk, who wish to follow Crimea in seceding to rejoin the Russian Federation and are - for the moment - operating partially under cease-fire conditions(Reuters, 2015:online). Ukraine is, thus, on the mainland at least, willing to escalate to the use of military force to preserve its eastern territories, yet did not do so in Crimea, which perhaps because of its cultural and societal divergence with greater Ukraine, may be explained almost in anomalous terms - collective sentiment generated towards Russia in the wake of the Peninsula's annexation was not acted upon because the linkages between the levels of state and society, even in society itself between the Ukrainian majority mainland and ethnic Russian dominated Crimean peninsula were disrupted. As such, these results suggest that whilst the model of sentiment driven escalation formed by Hypotheses 1 and 2, is not wholly correct in this case study, neither is it entirely incorrect, and is rather better described as not nuanced enough to take into consideration some of the wider factors and contextual dynamics at play.

Conclusion, Limitations and Policy Implications

In summary, this dissertation has attempted to establish if domestic public sentiment expressed on the social media platform Twitter plays a role in exacerbating hostility during disputes between interstate rivals. To do so, it has drawn on existing academic literature from three main bodies of research concerning interstate rivalry, the effects of domestic level politics on state decision making processes, and lastly the rise of internet based social media; before utilizing Lebow's cultural theory to guide analysis of two comparable yet contrasting case studies - the Sino-Japanese and Russo-Ukrainian interstate rivalries - in which hostilities were manifested in disputes over historically contested territories. The results of this analysis have proven mixed, with the Sino-Japanese case conforming largely to my hypotheses, whilst the Russo-Ukrainian case was less clear cut, indicating that a great deal of further research is required in this area if the processes which link domestic collective sentiment to state behavior are to be fully understood.

Consequently, the main limitations of this dissertation centre around problems of scale, both in terms of the scope of the research - the analysis, for example, would have benefited hugely with the addition of further case studies, and wider ranges of social media platforms within these case studies(in the Chinese case, for example, widening my remit to include the domestic networking site Weibo which would generate a much larger, and thus more representative dataset), in order to test the model of sentiment driven escalation more robustly across a broader forum of rival states and forms of social media - and in addition the length of the periods which were studied; longitudinal research over time would perhaps hold more nuanced answers as to how collective sentiment intensifies and dissipates in a variety of contexts.

As such, I would advocate further study of the mechanisms behind this process - especially widening the research parameters, as suggested above. In terms of wider policy implication, over the course of this research it has become clear that successful dispute resolution rests with finding a way to de-link the issues of contention from wider negative historical connotations and legacies, which only serve to inflame further public hostility and complicate state relations. Short of curbing the freedom of expression of the general public and freedom of press and news media at large, a viable alternative would be to encourage governments and politicians, on whom the responsibility to protect national interests lie, to:(1) cease describing the subject at the heart of disputes in terms with historically sensitive or provocative connotations;(2) stop arranging and participating in provocative events or symbolic gestures - for example the continued visits by high ranking Japanese officials to the controversial Yasukuni shrine, which includes in its commemoration of the Japanese fallen in WWII 14 convicted war criminals(Calder,2006:139); and(3) combat intense negative sentiment with official spokesperson accounts on social media platforms to disrupt collective sentiment formation and provide an alternative viewpoint which can, as Oates described in the context of the Russian occupation of Crimea, be lost or overwhelmed in surges of sentiment(2014:278).

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