

The Security Dilemma in US-China Relations: Uncertainty and Perception Formation

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Abstract

How do the interstate perceptions that drive the security dilemma form? This paper explores the role of uncertainty in perception formation and conflict in US-China relations over 1969-1981 using two new datasets. The first measures internal perceptions: time series valence of the internal discussions and memoranda of US and Chinese policymakers. The text corpora were constructed through digitization of Chinese leader papers and the *Foreign Relations of the United States* series. Positive, negative, and uncertain valence is measured with dictionary-based semantic analysis. The second dataset measures external actions: diplomatic events in the bilateral relationship, as auto-coded from my new corpus of 1.3 million *New York Times* articles on interstate affairs, 1851-2011. I find that uncertainty plays a very different role in the formation of US versus Chinese perceptions. For the United States, uncertainty encourages positive perceptions of China. For China, uncertainty contributes to negative perceptions of the United States.

Key Words: international relations, security dilemma, China

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1 Introduction

This paper focuses on one element of the security dilemma in US-China relations: the role of uncertainty in the formation of interstate perceptions. Perceptions, of course, underlie the security dilemma. In the classic spiral failure, one state incorrectly attributes aggressive intent to a status quo power, while in the classic deterrence failure, one state incorrectly attributes pacific intent to a revisionist power. The textbook example of the first is World War I; of the second, Neville Chamberlain's belief that Nazi territorial aims were limited to lands inhabited by Germans. In the first case, British foreign secretary Lord Edward Grey wrote that "Fear begets suspicion and distrust and evil imaginings of all sorts, till each Government feels it would be criminal and a betrayal of its own country not to take every precaution, while every Government regards every precaution of every other Government as evidence of hostile intent."¹ In the second, Chamberlain was not alone in concluding that German aggressiveness was understandable given the harsh penalties of the Versailles Treaty.

Statesmen spend much of their intellectual energy trying to ascertain the true intent of their counterparts. Pushed along as it is by the security dilemma, the enterprise is often unsuccessful. US-China relations---perhaps even in particular---have been dogged by misperception. The classic case is the Korean War, in which China sent what it believed to be clear messages that it would fight if the United States crossed the 38th parallel---which the United States roundly failed to recognize. A more recent case is President Barack Obama's post-election decision to delay Taiwan arms sales and to not meet with the Dalai Lama---which Obama saw as extending the olive branch, but which Beijing interpreted as a sign of weakness and followed up upon with a series of aggressive moves.

¹Edward Grey, *Twenty-Five Years*, vol. 1 (London: Hodder and Staughton, 1925), 92. Quoted in Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976), 65.

How do states form perceptions in an international system characterized by anarchy, uncertainty, and noise? The study of uncertainty has a lengthy theoretical pedigree in international relations (Morrow, 1999; Schultz, 1998; Sartori, 2002; Guisinger and Smith, 2002; Danilovic, 2001).² However, studies to date have failed to convincingly quantify uncertainty. This paper uses relatively new computer science techniques, combined with China area studies knowledge and archival work, to measure uncertainty and to examine its impact in the bilateral relationship. Policymakers form perceptions through a process of internal conversations and debates that are recorded in voluminous memoranda, reports, and transcripts. Where these records have been declassified, they represent ideal corpora on perception formation. Using semantic analysis based on three dictionaries---positive words, negative words, and words associated with uncertainty---I generate time series data on the level of subjective uncertainty in the bilateral relationship, as well as attitudes towards the other. This is, to my knowledge, the first study that develops a rigorous quantitative estimate of uncertainty between states.

The paper also measures interstate interactions at a more fine grained level than previously possible. The quantitative study of the security dilemma has been limited by data availability. Diplomatic signals are generally fine grained, fall into distinct but subtle categories such as urges, warnings, and promises, and appear at the day level. Therefore studies of interstate interaction tend to fall into either the qualitative case study approach or the Correlates of War-type large-N approach. Event data is in a sense the golden mean: permissive of generalizable quantitative inference and also great detail (see e.g. Schrodtt and Donald (1990); ?. For this paper, a new dataset of US-Chinese diplomatic interactions is created from automated coding of my new dataset of *New York Times* articles on the

²Existing debates on the role of uncertainty in international relations remain provocative but inconclusive (Waltz, 1979; Blainey, 1988; Jervis, 1976; Kydd, 1997; Gartzke, 1999). On one side, scholars including Waltz and Mearsheimer have argued that "uncertainty and miscalculations cause wars" (Waltz, 1979, 168). Others suggest the opposite: that uncertainty can encourage peace by making states more cautious (Deutsch and Singer 1964, Singer 1989).

United States and China, drawn from a corpus of 1.3 million news articles on interstate affairs, 1851-2011.

Developing this micro-level data is necessary because it enables theoretical inferences that macro-level data do not permit. The security dilemma is fundamentally an issue that evolves in a tit-for-tat manner, and current measures miss the "diplomacy in the weeds" that is the currency of reciprocation and retaliation. Events are classified into 20 specific types (such as praise, threaten, or coerce) and 4 aggregate categories (material cooperation, verbal cooperation, verbal conflict, and material conflict). Verbal actions are those that occur in speech only (such as appeals or rejections) while material actions are those that involve physical action (such as the provision of aid or the exhibition of force posture). This dataset's granularity allows for a better examination of the micro-evolution of the security dilemma. While other day-level international relations event datasets exist, most notably King and Lowe (2003), they lack historical breadth, with most extending back only into the 1990s. And though other datasets like Militarized Interstate Disputes 3.0 under the Correlates of War project³ have greater historical range, they are censored in the sense that they only contain major events. As Fordham and Sarver (2001, 455) comment, "the MID data are not appropriate for analyses of U.S. decisions to use force... The MID data set excludes several categories of incidents relevant to major theoretical arguments about the use of force and includes many irrelevant incidents." Perceiving this problem, scholars such as Pickering and Kisangani (2005) have used the International Military Intervention dataset coded by Pearson and Baumann (1993). This dataset is limited insofar as it captures only the most severe episodes of international conflict, interstate territorial incursions. Other papers such as DeRouen and Peake (2002) use quarterly force levels as a metric of US aggression abroad. This is arguably a poor measure, as periods characterized by arms buildups (e.g. the Cold War) sometimes experience little actual conflict. Still other

³Ghosn, Palmer and Bremer 2004.

datasets such as Blechman and Kaplan (1978) on US political uses of force used by Clark (2003) and Howell and Pevehouse (2005) are similarly coarse.

A fundamental problem with all these datasets is the range of incidents that are theoretically relevant. The granularity of the data is significant because perceptions might respond to saber rattling behavior below the outright invasion level. MID event types are limited to very aggressive military actions, starting with threats to use force and rising in aggressiveness through 21 categories, including threats to blockade, occupy territory, or declare war; shows of force; military alerts; troop mobilizations; territorial occupations; attacks; and war initiations. The bias towards explicit military action is even more pronounced with the International Military Intervention and political uses of force datasets.

If we recall Lord Edward Grey's missive that fear begets "evil imaginings of all sorts," perceptions are likely shaped by minor actions and statements far more subtle and in advance of the brute use of force. More precisely, perceptions are likely to be formed by two event types entirely absent from these datasets: less severe material actions and the full range of verbal statements. Less severe material provocations might take the form of obstructing another state's initiatives, reducing economic, military, or humanitarian assistance, expelling representatives of another state, or coercion. Verbal provocations might take the form of criticism, blame, disapproval, or the condemnation of other nations. Verbal provocation, including cheap talk, is a prevalent and theoretically important form of international diplomacy.

Having justified the need for new datasets on internal perceptions and external actions, as well as having noted the lacuna of empirical studies on the impact of uncertainty on conflict in the international relations literature, this study proceeds as follows. Section 2 introduces the data, Section 3 presents the results, and Section 4 discusses and concludes.

2 Data

2.1 Internal Perceptions

2.1.1 United States

On the US side, the internal perceptions dataset is drawn from the *Foreign Relations of the United States* (FRUS) series. Three volumes were digitized: Volume XVII on China, 1969-1972 (Nixon administration); Volume XVIII on China (Ford administration), 1973-1976; and Volume XIII on China, 1977-1980 (Carter administration). These three volumes represent 3,492 pages of text on US internal (then-classified) material on China. Prepared by the Office of the Historian at the Department of State, the series is the "official documentary historical record of major foreign policy decisions and significant diplomatic activity of the United States Government." The first volume contains materials related to Nixon's decision to open high-level discussions with China, relations with Taiwan, and triangular diplomacy between Moscow, Beijing, and Washington. The second volume contains materials related to the devolution of China policy from the White House to the Department of State due to the Watergate crisis, the establishment of unofficial liaison offices in Washington and Beijing, and US efforts to formalize the US-China relationship and to cut formal relations with Taiwan. The third volume contains materials related to the formal establishment of US-China diplomatic relations on December 15, 1978 and the concomitant deterioration of US-Taiwan and US-Soviet relations.

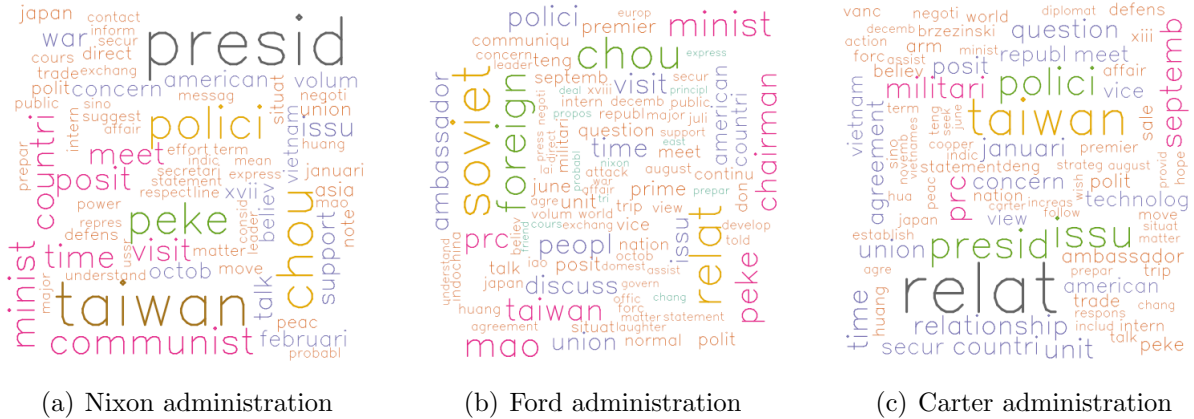
Table 1 describes the content of these volumes. Memoranda and conversations are the most frequent documents. The vast majority of documents are strictly internal---except for 59 telegrams, 18 backchannel messages, 18 letters, one oral presentation, and one record of discussion between US and Chinese leaders, but these were excluded from the analysis as the intent was to build a dataset of purely internal assessments. The documents represent

the views of each administration's top one or two dozen foreign policy officials, including Presidents Nixon, Ford, and Carter; Secretaries of State Kissinger, Vance, and Brown; National Security Affairs Assistant Brzezinski; National Security Council senior members; and high ranking Department of Defense and Central Intelligence Agency representatives. In short, the views of the highest officials responsible for China policy are represented in FRUS. The written materials (memoranda, summaries, estimates, and papers) are formal in tone and present situational assessments and recommendations. The conversational transcripts cover high level meetings at which policy options were debated. Wordclouds of US policy documents on China by administration appear in Figure 1.

Table 1: FRUS Documents (* are external)

Document Type	No.
memorandum	345
conversation	197
telegram*	59
backchannel message*	18
letter*	18
message*	17
summary	15
estimate	12
minutes	11
paper	8
assessment	8
report	7
note	6
appraisal	1
directive	1
oral presentation*	1
record	1
record of discussion*	1
joint statement	1
response	1

Figure 1: US Policymakers on China



2.1.2 China

China does not publish a series similar to FRUS, however, I have constructed as close a comparison as possible through archival research and digitization at the Chinese Ministry of Foreign Affairs archive and the Peking University collections in Beijing.

Since imperial times, Chinese leaders have adhered to a custom of recording their daily activities in impressive detail. While the Cultural Revolution overturned many traditional customs, this was not one of them. Mao remains famous in China for the volume of his written output as well as the artistry of the calligraphy with which he recorded this output. Other Chinese leaders since Mao's rise to prominence in the 1930s have followed suit. I digitized the written collections of several Chinese political figures, including Mao Zedong (paramount leader, 1949-1976), Deng Xiaoping (paramount leader, 1978-1992), Zhou Enlai (premier, 1949-1976), Chen Yun (civil war leader, later influential leader of the 1980s and 1990s), and Hu Qiaomu (1930s revolutionary, later 1980s reform opponent).⁴ This corpus totals tens of thousands of pages and represents the highest levels of Chinese foreign policy thought. The documents in the collections are much like those in FRUS: memoranda,

⁴Specifically: The Writings of Mao Zedong, Volume 13 (建国以来毛泽东文稿), The Diplomatic Selections of Mao Zedong (毛泽东外交文选), The Diplomatic Selections of Zhou Enlai (周恩来外交文选), The Writings of Chen Yun (陈云文选), and The Annals of Hu Qiaomu (胡乔木文集).

reports, and conversations between high ranking foreign policy officials. The entire corpus includes 2,729 documents over 1938-1992: the portion for this study is limited to 1969-1981 in order to ensure comparability with the US documents. Wordclouds of documents by Chinese leader appear in Figure 2.⁵

⁵Term document matrices were generated in Chinese and then translated into English in the final step.

Figure 2: Chinese Policymakers on US



2.1.3 Valence

For both the US and Chinese documents, dictionary based semantic analysis was used to measure trends in perception of the other state on three dimensions: positivity, negativity, and uncertainty. First, dictionaries were constructed of words characteristic of a certain sentiment. For the English documents, I use the well established Harvard General Inquirer dictionaries. *Positiv* includes 1,915 words of positive outlook; *Negativ* includes 2,291 words of negative outlook; and *If* includes 132 words "denoting feelings of uncertainty, doubt and vagueness."⁶

For the Chinese documents, I use the HowNet Chinese-language dictionaries developed by Dong Zhendong and Dong Qiang.⁷ The positive dictionary contains 4,566 words and the negative dictionary 4,370 words. A dictionary of uncertain Chinese terms does not exist, so I translated the General Inquirer *If* dictionary into Chinese.

For greater precision, the concordance technique was used.⁸ Rather than use the full documents---which are lengthy and sometimes deal with foreign policy topics other than China (particularly true of the Chinese documents)---I used the computer programming language Python to pull out the 30 words on either side of "United States (美国)" or "China/Chinese." This technique yields a 60-word segment of speech which directly refers to the other state.

I then computed the percentage of positive, negative, and uncertain words in each concordance segment, yielding time series data on valence. Descriptive statistics appear in Table 2. The average length of US documents exceeds that of Chinese documents; however, this is to be expected as the same content is conveyed in fewer words in Chinese. For the US, on average, 5.5% of words in each document were positive, 2.9% of words in each document were negative, and 1.9% of words in each document were uncertain. For

⁶See <http://www.wjh.harvard.edu/inquirer/homecat.htm>.

⁷See: http://www.keenage.com/html/e_index.html.

⁸See e.g. Krippendorff (2013) and Lowe (2003).

China, on average, 1.2% of words in each document were positive, 2.1% of words in each document were negative, and 2.5% of words in each document were uncertain. Standard deviations on each valence variable were small, ranging from at least slightly less than one percentage point to at most slightly less than four percentage points.

Time series day-level internal sentiment data is shown in Figure 3. Loess smoothing is applied and 95% confidence intervals are shown. Aggregate annual sentiment data is shown in Figure 4. Both figures pass the eyeball test. The daily figure shows a great deal of short term variation in sentiment---both across time and across policymakers. The annual figure corresponds to what we would expect from the qualitative historical record. The United States warmed towards China as the Sino-Soviet split emerged in 1969 and the early 1970s, cooled in the two years prior to Mao's death in 1976, and warmed as the two sides approached normalization in 1978 and thereafter as the reformist Deng gained power. Chinese sentiment toward the US rose rapidly after Mao's death---likely as an artefact of the leadership transition.

Table 2: Descriptive Statistics for Internal Documents

	USA				China			
	Min	Mean	Max	σ	Min	Mean	Max	σ
Wordcount	29.000	1832.686	17286.000	2596.725	5.000	842.676	10606.000	1205.793
% Positive	0.015	0.055	0.200	0.015	0.000	0.115	0.286	0.035
% Negative	0.000	0.029	0.064	0.011	0.000	0.021	0.200	0.017
% Uncertain	0.000	0.019	0.071	0.008	0.000	0.025	0.103	0.017

2.2 Diplomatic Events

The diplomatic events dataset consists of 1,767 interactions between the US and China over 1949-2011. It is drawn from my larger dataset of approximately 150,000 global interstate interactions, 1851-2011. The events are drawn from my new corpus of all 1.3 million *New York Times* articles with nation states in the title published since the

Figure 3: Daily Sentiment Data

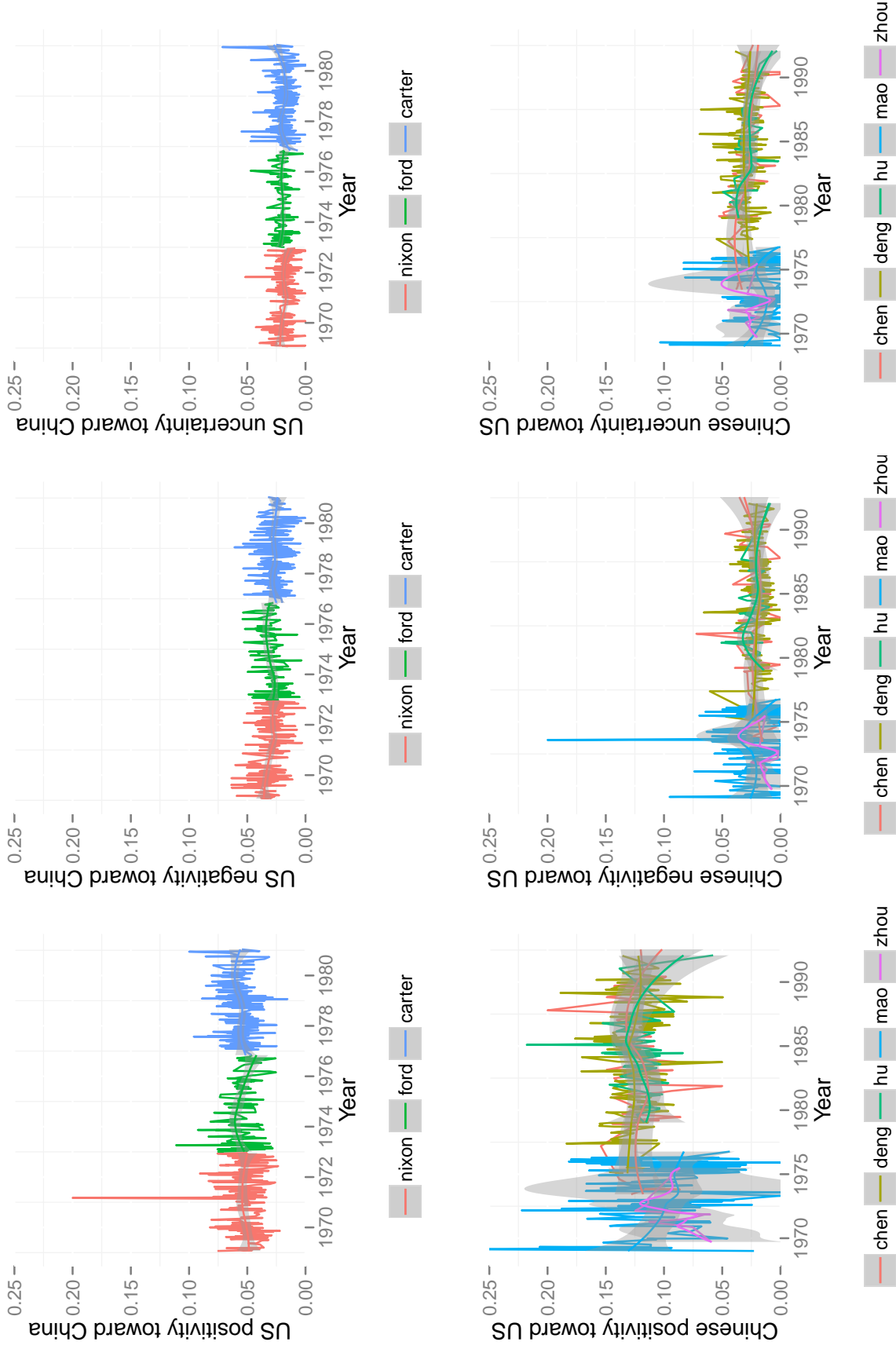
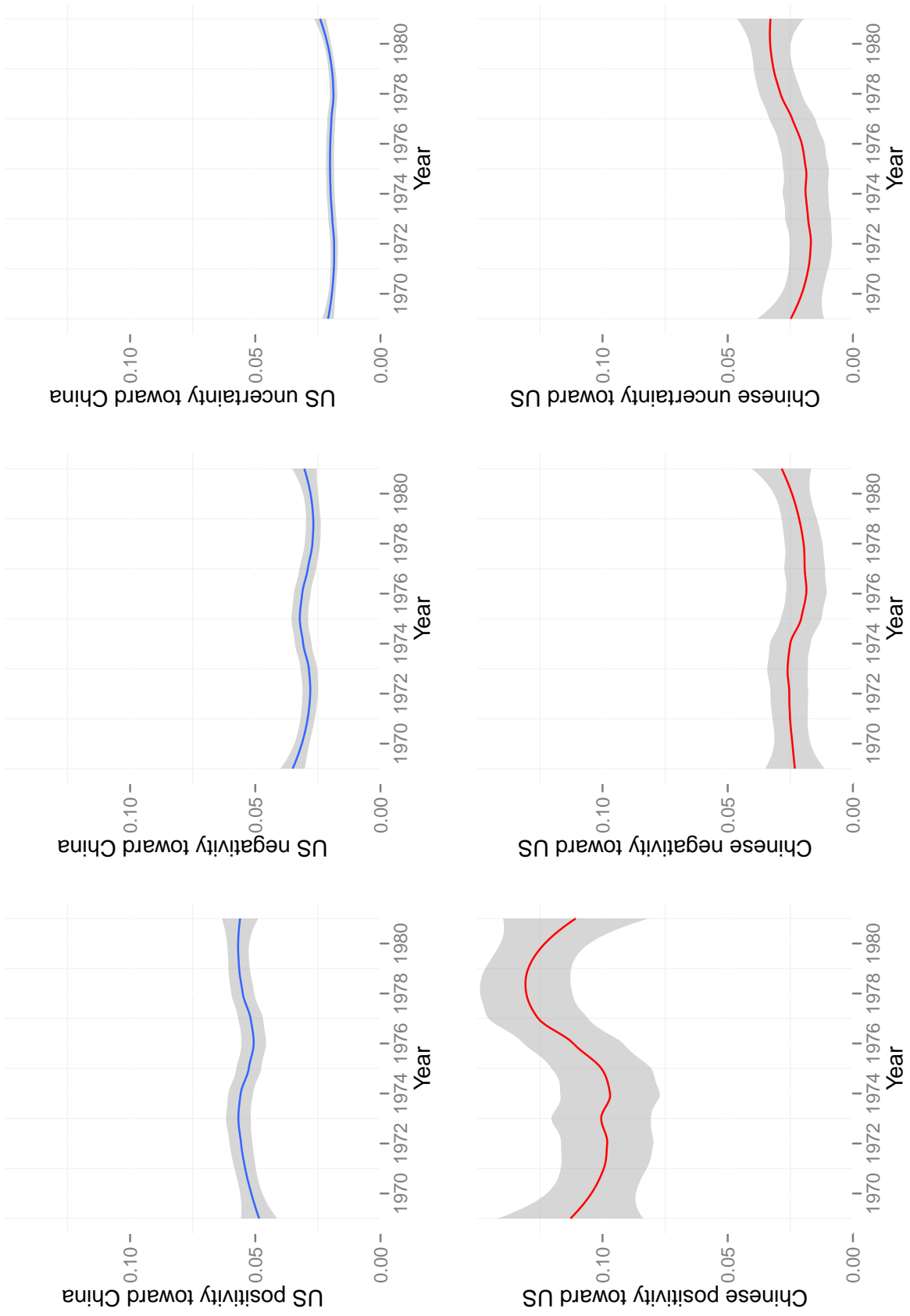


Figure 4: Annual Sentiment Data



founding of the newspaper in 1851---for the subset used in this article, either ``United States/US/USA/America'' in the title, or ``China/Chinese'' in the title.⁹ The corpus was scraped from the internet using the computer programming language Python. A core script was distributed over 50 Condor servers and took 12 hours to complete. Each document in the corpus is an abstract consisting of a two to four sentence summary of the news article.¹⁰

After the 1.3 million documents were downloaded, events were extracted from the text using Textual Analysis By Augmented Replacement Instructions (TABARI) 0.8.3b1 software (Schrodt, 2012c) operationalized with the Conflict and Mediation Event Observations (CAMEO) ontology (Gerner, Schrodt and Yilmaz, 2009).¹¹ A typical event consists of two nations and a directional verb, e.g. `US praises China` or `China condemns US`. The CAMEO ontology was chosen because it is state of the art in terms of linguistic parsing and because it focuses on interstate behavior (Schrodt, 2012a). CAMEO is chosen over the earlier WEIS coding scheme because it combines WEIS event categories that cannot be systematically distinguished in machine coding, including `promise/agree`; `propose/request`; `grant/reward`; `deny/reject`; and `warn/threaten` (Gerner, Schrodt and Yilmaz, 2009). CAMEO is chosen over the IDEA coding scheme because the former focuses on interstate behavior while the latter contains event codes for a wider range of behaviors, such as citizen direct action, strikes, and protests (Schrodt, 2012a). Illustrative news stories and the events generated from them selected from the larger global corpus are shown in Table 3.

I adopt Schrodt's -10 to 10 index ratings for CAMEO codes, representing the most conflictual to most cooperative events. Also following Schrodt, events are aggregated into

⁹For a general discussion of the merits and limitations of text as data, see Grimmer and Stewart 2013, Schrodt 2012b, and Schrodt and Brackle 2013.

¹⁰Article abstracts are used because full text articles are not available back to 1851. Moreover, the vast majority of event coding systems take lead sentences or titles as input. A full article is not necessary and indeed may create noise, as similar sentences tend to generate duplicate events. Abstracts that get to the pith of the news story are preferable.

¹¹This analysis made use of several workhorse software packages including *kountry* by Raciborski (2008).

material cooperation, verbal cooperation, verbal conflict, and material conflict. An event is defined as materially cooperative if it involves a cooperative *action*, such as providing aid or yielding on a disputed issue. An event is defined verbally cooperative if it involves a cooperative *speech act* but no action, such as appeals and consultations. An event is defined as materially conflictual if it involves an aggressive *action*, such as coercion, displays of military force, and assaults. An event is defined as verbally conflictual if it involves an aggressive *speech act* but no action, such as disapproval, rejection, demands, threats, and protestations. The only event that is not assigned to one of these four categories is making a public statement, as this is a neutral event. Event categories, scale values, and groupings appear in Table 4.

While event observations are at the day level, the data is aggregated into monthly averages. For each month, there is data on the mean conflict score, as well as count data on the number of materially conflictual, verbally conflictual, verbally cooperative, and materially cooperative events.

3 Empirics

How do US and Chinese perceptions form? The empirical section turns to this question. I expect two main factors to play a role in the formation of perceptions. First, uncertainty: the degree to which one side is uncertain about the intentions and capabilities of the other, as measured by the percentage of uncertain words in internal assessments. Second, the current and recent actions of the other state. Here, I include variables for the other's level of verbal cooperation, material cooperation, verbal conflict, and material conflict. In different specifications, I use the current value of these variables, the one month lag of these variables, and the six-month moving average. OLS models are used. Due to the "swiss cheese" nature of this dataset---diplomatic events do not occur every month---I believe the

Table 3: Illustrative Events

News Story	Source	Event(s)	Target
United States trade with China this year is surging tenfold from the 1972 level. Exports to China will reach \$840 million by year end while imports from China will total \$60 million.	US	cooperates economically	China
Chile's military Government has named a former finance minister to negotiate with United States copper companies over compensation for property nationalized by the previous Marxist Government.	US Chile	cooperates diplomatically cooperates diplomatically	Chile US
Canada Upset Over US Investments: The Canadian Government is increasingly concerned about American corporations.	Canada	makes pessimistic comment	US
Cuba Indicates Interest in Talks If US Ends Economic Blockade.	Cuba	expresses intent to meet or negotiate	US
Iran Due to Buy 30 Jet Fighters: Total Cost of the Grumman Planes Is 900 Million... Iran has reportedly accepted a United States offer.	Iran	agrees to cooperate materially	US
Foreign Minister Andrei A. Gromyko arrives in Washington tomorrow for the first broad Soviet American talks in nearly eight months.	US Russia	cooperates diplomatically cooperates diplomatically	Russia US
Saudi Arabia and Kuwait Give Syria Pledge on Oil Embargo... Saudi Arabia and Kuwait have given President Hafez al-Assad of Syria firm pledges to continue the oil embargo against the United States.	SA Kuwait	imposes embargo, boycott, or sanctions imposes embargo, boycott, or sanctions	US US

Table 4: CAMEO General Event Codes

Scale Value	Event Description	
7.0	Provide aid	} Material cooperation
6.0	Engage in material cooperation	
5.0	Yield	
4.0	Express intent to cooperate	} Verbal cooperation
3.5	Engage in diplomatic cooperation	
3.0	Appeal	
1.0	Consult	
0.0	Make public statement	
-2.0	Investigate	} Verbal conflict
-2.0	Disapprove	
-4.0	Reject	
-4.0	Reduce relations*	
-5.0	Demand	
-6.0	Threaten	
-6.5	Protest	
-7.0	Coerce	} Material conflict
-7.2	Exhibit force posture	
-9.0	Assault	
-10.0	Fight	
-10.0	Engage in unconventional mass violence	

six-month moving average is the best measure of the nature of the bilateral relationship.

Controls employed in the analysis include: relative military strength, ongoing crisis involvement, and administration or paramount leader. The Correlates of War Composite Indicator of National Capabilities (CINC) index is used to measure relative military strength (Singer, Bremer and Stuckey, 1972). This data is annual, but is assigned to constituent months.¹² Data on ongoing crises is drawn from the International Crisis Behavior dataset (Brecher and Wilkenfeld, 1997). This data is coded as a binary variable indicating whether or not the country is involved in an ongoing international crisis in a given month. A binary variable measures administration (Nixon, Ford, or Carter) and paramount leader (Mao, Deng).

¹²I expect this not to introduce much post-treatment bias, as military capabilities move slowly. It is unlikely that they move in any significant way at the monthly level. Major US assessments of defense capabilities, after all, are quadrennial.

Table 5 presents a variety of specifications exploring the determinants of US perceptions. The outcome variable is the level of positivity in US sentiment towards China. Specification 1 models current period actions without controls. Specification 2 models the same, with controls. Specification 3 uses one month lags, with controls. Specification 4 uses current actions and one month lags, with controls. Specification 5 models six-month moving averages, with controls.

One thing that is clear is that across specifications, material but not verbal actions influence the other's perceptions. And in particular, conflictual material actions influence perceptions. For the United States, an additional materially conflictual act per month is significantly associated with a decrease in positive perceptions of nearly one percentage point --- which is quite a large shift considering that on average 5.5% of the words in any given US policy document are positive. Therefore, talk appears cheap, and aggressive actions influence perceptions more significantly than cooperative actions.

The second interesting finding to emerge from Table 5 concerns uncertainty. For the United States, uncertainty about China is associated with more positive assessments of China. That is, ambiguity about Chinese intentions and capabilities leads to friendly sentiment.

Table 6 presents several specifications exploring the determinants of Chinese uncertainty. Current period actions and six-month moving averages of actions are possible, however, one-month lags are not possible because of the greater sparsity of internal assessment data on the Chinese side. Unlike the United States, China does not respond systematically or significantly to any genre of interaction--verbal or material, friendly or hostile, current or recent. However, there are clear findings on uncertainty. For China, uncertainty is associated with more negative perceptions of the United States.

4 Discussion and Conclusion

The core finding of this paper is that uncertainty plays a different role in US and Chinese assessments of the other. While this finding is preliminary, it begs several theoretical questions. Is power status an intervening variable between uncertainty and perceptions--do stronger powers have the luxury of seeing uncertainty as opportunity rather than threat? Is this finding an artefact of the Sino-Soviet split, or does it characterize a broader period of Sino-US relations? The impact of differences of opinion among foreign policy officials (factionalism) will also be explored. And of course, the link between perceptions and subsequent actions must be made. The Chinese and US datasets contain a majority of internal documents but a minority of external (now excluded) communications---does strategic misrepresentation occur, and what is its effect on interaction? *People's Daily* editorials on the United States have also been digitized, 1949-2011---are there differences in how Chinese foreign policy leaders think about their own foreign policy versus how they represent it to their people?

Future research will proceed down several avenues. The primary endeavor at this point is data collection. The text corpus will be greatly expanded. On the Chinese side, additional leader works will be digitized, including those of Bo Yibo, Jiang Zemin, Li Xiannian, Liu Shaoqi, Nie Rongzhen, Peng Dehuai, Peng Zhen, Song Renqiong, Wang Jiaxiang, Wang Zhen, Yang Shangkun, Zhang Wentian, and Zhao Ziyang. This larger leader group will allow for a larger sample size and a more accurate representation of currents of thought within the (often factional) Chinese foreign policy leadership group. On the US side, the 1949-1969 FRUS China volumes will be digitized. Documents since 1980 have not yet been declassified; so 1980-2000 documents will be gathered through Freedom of Information Act Requests from the Reagan, Clinton, and Bush presidential libraries.

Table 5: Determinants of US Perceptions (% *Positiv*/Doc)

	Model 1	Model 2	Model 3	Model 4	Model 5
(Intercept)	0.0448*	0.0298	0.0139	-0.0027	0.0175
	(0.0036)	(0.0198)	(0.0191)	(0.0198)	(0.0277)
US uncertainty	0.3360*	0.3449*		0.1815	
	(0.1617)	(0.1630)		(0.1496)	
Chinese verbal cooperation	0.0004	-0.0002		0.0000	
	(0.0007)	(0.0008)		(0.0007)	
Chinese material cooperation	0.0036	0.0038		0.0041	
	(0.0033)	(0.0033)		(0.0029)	
Chinese verbal conflict	-0.0014	-0.0013		-0.0005	
	(0.0024)	(0.0024)		(0.0022)	
Chinese material conflict	-0.0069*	-0.0073*		-0.0077*	
	(0.0027)	(0.0028)		(0.0024)	
US uncertainty _{t-1}			0.1367	0.1978	
			(0.1509)	(0.1494)	
Chinese verbal cooperation _{t-1}			-0.0014*	-0.0016*	
			(0.0007)	(0.0007)	
Chinese material cooperation _{t-1}			0.0037	0.0040	
			(0.0030)	(0.0029)	
Chinese verbal conflict _{t-1}			0.0042	0.0035	
			(0.0022)	(0.0022)	
Chinese material conflict _{t-1}			-0.0021	-0.0019	
			(0.0026)	(0.0025)	
US uncertainty _{6moav}					0.9662*
					(0.4126)
Chinese verbal cooperation _{6moav}					0.0004
					(0.0018)
Chinese material cooperation _{6moav}					0.0060
					(0.0097)
Chinese verbal conflict _{6moav}					0.0025
					(0.0069)
Chinese material conflict _{6moav}					0.0044
					(0.0085)
US crisis involvement		0.0012	0.0001	0.0013	-0.0019
		(0.0022)	(0.0020)	(0.0020)	(0.0026)
Chinese relative power		0.0150	0.0390	0.0544*	0.0142
		(0.0241)	(0.0231)	(0.0234)	(0.0304)
Nixon		0.0038	0.0071	0.0096	0.0017
		(0.0050)	(0.0048)	(0.0049)	(0.0063)
Carter		0.0060	0.0065*	0.0054	0.0058
		(0.0033)	(0.0031)	(0.0031)	(0.0038)
<i>N</i>	137	137	131	131	137
<i>R</i> ²	0.0815	0.1318	0.1568	0.2361	0.1078
adj. <i>R</i> ²	0.0464	0.0702	0.0941	0.1439	0.0445
Resid. sd	0.0123	0.0121	0.0109	0.0106	0.0123

Standard errors in parentheses

* indicates significance at $p < 0.05$

Table 6: Determinants of Chinese Perceptions (% *Positiv*/Doc)

	Model 1	Model 2	Model 3
(Intercept)	0.1271*	0.1608*	0.1633*
	(0.0054)	(0.0236)	(0.0237)
Chinese uncertainty	-0.5278*	-0.4006*	
	(0.1639)	(0.1665)	
US verbal cooperation	0.0003	-0.0020	
	(0.0033)	(0.0034)	
US material cooperation	-0.0007	0.0022	
	(0.0153)	(0.0153)	
US verbal conflict	0.0013	-0.0083	
	(0.0099)	(0.0104)	
US material conflict	0.0111	0.0122	
	(0.0085)	(0.0104)	
Chinese uncertainty _{6moav}			-0.7502*
			(0.2399)
US verbal cooperation _{6moav}			0.0047
			(0.0070)
US material cooperation _{6moav}			0.0043
			(0.0304)
US verbal conflict _{6moav}			-0.0050
			(0.0223)
US material conflict _{6moav}			-0.0344
			(0.0224)
Chinese crisis involvement		0.0042	0.0007
		(0.0120)	(0.0118)
Chinese relative power		-0.0171	-0.0144
		(0.0260)	(0.0273)
Mao		-0.0351*	-0.0287*
		(0.0127)	(0.0130)
Deng		-0.0183*	-0.0129
		(0.0092)	(0.0094)
<i>N</i>	204	195	195
<i>R</i> ²	0.0633	0.1218	0.1417
adj. <i>R</i> ²	0.0397	0.0791	0.0999
Resid. sd	0.0363	0.0353	0.0349

Standard errors in parentheses

* indicates significance at $p < 0.05$

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