Making a Case for Quantitative Research in the Study of Modern Chinese History: The New China News Agency and Chinese Policy Views of Vietnam, 1977-1993

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Abstract

Scholarly appraisals of China's post-1949 foreign policy have been largely shaped by qualitative research, using techniques such as "Beijingology" and the selective citations of primary and secondary sources. While helpful in conducting inquiries into certain historical trends and policy issues, qualitative methodologies are susceptible to researcher bias, and can lead to disagreement over the relative importance of different factors in shaping Chinese policy. This thesis asks whether a rigorous quantitative methodology can more effectively highlight trends and answer questions relating to modern Chinese history and government policy. Specifically, can a computer content analysis (CCA) based on news published by the state-run New China News Agency (NCNA) provide an accurate gauge of the international outlook of the Chinese leadership? This study establishes the reliability and effectiveness of quantitative, computer-driven historical research by undertaking a three-stage CCA of NCNA content concerning a specific topic: Beijing's official views of Vietnam during the Deng Xiaoping era. The data from the CCA also answers an academic question framed by the qualitative research of Robert S. Ross and Charles McGregor: During the 1980s, was China's central leadership primarily concerned with Hanoi's military and economic alliance with Moscow, and the potential for Soviet encirclement of China? Or was Beijing more worried about Vietnam's regional ambitions in Southeast Asia? The CCA results clearly support the regionally themed thesis outlined by McGregor, while casting doubt upon the Soviet-focused findings of Ross. Not only was NCNA coverage of

Vietnam overwhelmingly oriented toward issues touching Kampuchea and the brutal war there, but also NCNA reports about Vietnam's interactions with other counties in Southeast Asia were far more negative than NCNA articles about Hanoi and Moscow, even when sampled news reports excluded references to the dire situation in Kampuchea. The CCA methodology, which counted the frequency of country references in NCNA articles and gauged the positive and negative tone of NCNA coverage throughout the Deng era, serves as a template for further inquiry into China's views of the world. It also establishes the advantages of using quantitative research to explore certain issues relating to modern Chinese history and foreign policy.

Biography

Ian Lamont is the senior online projects editor at Computerworld, a trade publication covering the computer industry. From 1993 to 1999 he lived in Taiwan, where he studied Mandarin and worked as a reporter and editor for the China Television Company, the Central News Agency, and the *China News*, an English-language daily newspaper. He has also written about Chinese business, media, and technology trends for the *South China Morning Post*, *The American*, and the Economist Intelligence Unit.

Acknowledgements

Using content analysis techniques to research modern Chinese history has been, more often than not, a solitary pursuit. Most of the time I have been alone, browsing the stacks at Harvard's Widener, Lamont, and Yenching libraries, reading books and journal articles, writing précis and outlines, taking notes, searching databases, building spreadsheets and graphs, drafting proposals, and writing the thesis.

However, the research process has occasionally brought me into contact with others, and it has been these encounters that have proved to be the most rewarding aspects of the learning experience. I would like to thank the people who touched this project and gave me encouragement over the past four years at the Harvard Extension School. In my graduate proseminar, the lively classroom discussions led by Drs. Doug and Joe Bond of the Weatherhead Center for International Affairs introduced me to the techniques and technologies used to conduct quantitative research based on mass media content. Sally Hadden, Associate Professor of History and Law at Florida State University and a Harvard Summer School instructor in the history of the Old South, taught me how to prepare high-quality précis that have been instrumental in keeping track of China-related research cited in this paper. Philip Kuhn, the Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations, taught my first Extension School seminar on modern Chinese history in 2003, and two years later helped guide my initial quantitative research experiment, a computer content analysis that

examined Beijing's policies toward overseas Chinese communities in Vietnam and Kampuchea in the late 1970s.

Starting my thesis research in 2005 gave me an opportunity to take my history and technology interests to the next level. Professor Donald Ostrowski of the Harvard Extension School gave me early guidance on shaping my research proposal. I am not formally trained in statistics, but my father, Dr. John Thomas Lamont, introduced me to some useful statistical techniques that he has applied to his own medical research over the past three decades. The ALM thesis writers' group was a superb forum for exchanging writing and research tips with my peers. I also received a great deal of online support through my blogging efforts on Harvard Extended, the Internet journal that I created to track my thesis progress and research interests. This website allowed me to engage other Extension School students and Chinese media professionals, and hone my writing and analysis skills. Also through Harvard Extended, I was able to start an online discussion with Will Lowe, formerly of the Weatherhead Institute's Identity Project and the creator of the Yoshikoder content analysis program, who patiently answered my questions about the software tool.

I must give special thanks to Dr. Alastair Iain Johnston, the Governor James Albert Noe and Linda Noe Laine Professor of China in World Affairs. He graciously agreed to serve as my thesis director, and, as one of Harvard's resident experts on China's foreign policy in modern times, was a valuable source of information and advice that proved crucial in developing my research questions. Over the past ten months, he has helped me focus my hypotheses, and suggested new lines of inquiry using the technology and sources at my disposal.

Lastly, I would like to thank my wife Nicole, who has been the most patient and supportive witness to my academic journey over the past four years. There have been hundreds of nights and weekends that I have spent in my study, conducting research or writing, time that I otherwise could have spent with her and our two small children, yet she never once protested. I hope that I can reciprocate some day, but in the meantime, I would like to dedicate this thesis to her.

I.L.
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Chapter I

Qualitative vs. Quantitative Research and the Study of Sino-Vietnamese Relations

Technology has transformed the study of modern Chinese history over the past two decades. Most in the field now use computers to write papers, communicate with colleagues, and browse the Internet for articles and other references. However, as scholars have embraced 21st-century communications and publication technologies, the research methodologies they use still follow techniques developed in the 20th century and earlier. Traditional, qualitative methodologies have certainly led to broad understanding of China and its recent history, but they have occasionally resulted in disagreements over important historical incidents and trends.

This thesis proposes that a computer-assisted quantitative methodology based on state-run media content can provide a new window of understanding into a specific area of modern Chinese history and government studies: the foreign policy views of China's core leadership since the death of paramount leader Mao Zedong. In doing so, these data-driven techniques can help resolve academic debates and more precisely measure Beijing's official priorities during the past three decades. They also enable observers to analyze vast amounts of electronic data now being posted to online databases and websites in a relatively short period of time, something that would be impossible for a researcher to do using traditional methods.

To demonstrate the potential of quantitative methodologies to conduct historical research, I will use a multistage computer content analysis (CCA) of English-language

news produced by the New China News Agency (NCNA) to test the conclusions of Charles McGregor and Robert S. Ross, whose research addressed Chinese policy views of Vietnam in the late 1970s and 1980s. Both authors approached the Sino-Vietnamese relationship from a realist perspective, and both used selective citations of primary and secondary source material to ascertain whether China during this period was more concerned with Soviet encirclement or Vietnam's regional ambitions. Both agreed that China was chiefly concerned with Moscow's intentions in the late 1970s. However, the two authors came to quite different conclusions relating to China's views of Vietnam during the 1980s. Ross determined that China remained fixated on Moscow's alliance with Hanoi, while McGregor concluded China's paramount worry during this period was Vietnam's expansionist aims in Southeast Asia. The CCA not only confirmed the two author's findings relating to the late 1970s, but also clearly backed McGregor's thesis that China was most worried about Vietnam's regional ambitions in the 1980s.

Limitations of Qualitative Research

Before exploring the advantages of using quantitative methodologies to study modern Chinese history, it is necessary to review why traditional qualitative methodologies are lacking. Some readers of this thesis may be surprised to see traditional research techniques called into question. After all, qualitative research has been instrumental in understanding China, its people, and its government. It is extremely flexible — in the study of China's recent history and foreign relations, researchers have been able to draw upon a multitude of primary and secondary sources to build their arguments and resolve conflicting evidence. They can work within different theoretical

frameworks. They can use specialized methodologies — such as counterfactual reasoning and "Beijingology" — to study how single events can impact history, or make appraisals of domestic Chinese political trends.

But this degree of flexibility has its downside. Consider the application of theory. Attempting to identify the causes of a specific event or trend from a Marxist perspective may lead to a completely different conclusion from one if a realist perspective is used. For instance, explaining Chinese military and logistical support for North Vietnam in the 1960s from a Marxist perspective would emphasize the two countries shared Communist ideals, and a desire to drive the forces of imperialism from Indochina. However, from a realist perspective, Beijing's rivalry with Moscow and its ongoing efforts to sway Hanoi away from Moscow's sphere of influence would receive more weight.

Qualitative research has several major limitations relating to the use of sources. The sheer volume of sources presents a huge challenge. For many issues that concern modern Chinese history and foreign policy, no one is capable of reading all of the available and relevant primary documents, journal articles, books, websites, and news accounts, or interviewing all of the living witnesses and participants. This situation forces researchers to selectively and sometimes haphazardly incorporate a relatively small number of sources into their research. This in turn creates opportunities for bias at crucial stages of a research project, from formulating hypotheses to interpreting data. Besides overlooking important sources, researchers can dismiss or underweight those sources that do not agree with their hypotheses, or do not match their ideological or theoretical perspectives.

For these reasons, academics using qualitative methodologies sometimes arrive at very different conclusions about what makes China react to external stimuli, why senior cadres change an important policy, or how China views key foreign relationships. Consider Beijing's views and policies relating to Sino-Vietnamese relations while Deng Xiaoping led China (1977-1993). During this period, China had a complex relationship with its southern neighbor. In the late 1970s, bilateral relations were marred by war and a refugee crisis, but by the early 1990s the situation had resolved to a state of détente. On many points, the qualitative evidence is overwhelming and experts are largely in agreement. However, when Western academics have looked at Beijing's underlying views of Vietnam during the middle of the Deng era, there is a dispute over whether China was more concerned about Hanoi's close relationship with Moscow (Ross' stance), or Vietnam's regional ambitions (McGregor's claim).

The fact that there is fundamental disagreement over what most concerned China, and therefore influenced Chinese policy and behavior toward Vietnam, should greatly concern anyone who has attempted to understand Chinese foreign policy in the decades following the death of Mao. If two well-argued qualitative analyses by top-notch researchers, each supported by convincing primary and secondary source citations, lead to vastly different conclusions on this single issue, what does that say about other qualitative analyses that have attempted to describe and understand Chinese foreign policy? Based on qualitative analyses, our understanding of what has made China behave in the way that it has in the international arena may be incomplete, and requires a more rigorous methodology to more fully comprehend the factors that influenced China.

Using a quantitative methodology, this paper will attempt to resolve the debate relating to official Chinese views of Vietnam during the 1980s and provide a template for future research involving Chinese foreign policy in the post-Mao era. The results described in Chapter III are based on a multistage CCA[1] of the English-language wire service operated by the state-run New China News Agency, the official news service of the People's Republic of China.

News-based CCAs have been used for decades to study mass media, politics, and society, but their use in the study of modern Chinese history is uncommon. There are many reasons why this is so. Most of the existing literature is based on qualitative research, so there are relatively few CCAs to serve as references and examples for new studies. Moreover, "content analysis" carries with it a strong negative connotation, borne of the tedious and error-prone manual coding processes that were required in early content analysis schemes, as well as a lack of easy-to-use software tools. Another problem: A dearth of readily available Chinese content in structured, digital format, a basic requirement for computer-assisted text analysis. For instance, LexisNexis, the online news and legal database, did not begin to archive important Chinese-language news content until the beginning of this decade. Scholars interested in performing CCAs on earlier Chinese-language content would have to manually enter text into a database, or "scrape" text samples from unstructured digital sources, such as websites, or documents in Microsoft Word or Adobe PDF format.

Quantitative analyses have additional limitations. CCAs cannot answer certain types of historical questions — for instance, the quantitative methodologies described in this paper would be ill suited to conducting research into Mao's family life. And, as

[1] Also called computer-assisted text analysis, computer-assisted content analysis, or text mining.

everyone who follows politics knows, statistical data can be twisted to serve a party platform or ideological agenda — that is, the data from academic CCAs can be selectively referenced, or interpreted to fit a hypothetical or theoretical disposition. With these limitations, it should come as no surprise that many researchers, professors, and other university faculty are unfamiliar with CCA techniques, and are not inclined to include them in their curricula to teach to the next generation of scholars.

But there are benefits to using a well-designed CCA. Rigorous sampling methods and analysis can minimize researcher bias at the hypothesis and data collection stages. They can be used to confirm other qualitative and quantitative research. They enable researchers to analyze massive amounts of data — including recently created online databases of historical records, news websites and blogs — in a relatively short period of time. They can suggest conclusions that go against the prevailing academic discourse, and force a reconsideration of existing hypotheses. And, as we shall see later in this paper, longitudinal studies based on CCAs can reveal trends that are not apparent using traditional qualitative research.

Literature Review

There is a large body of research relating to Chinese media outlets and how they serve the state. For this study, it is particularly important to establish the connection between China's foreign policy bureaucracy and the mission of the NCNA.

The Role of State-Run Media in Disseminating Official Views

Lu Ning's analysis of China's foreign policy bureaucracy noted the multiple agencies involved in carrying out foreign policy. However, he found a top-down control structure in which "ultimate decision-making power has been retained by the paramount leader or the leading nucleus." This leading nucleus is responsible for determining the basic orientation of Chinese foreign policy, as well as decisions relating to military operations that involve actual or potential conflict with other countries, decisions regarding regional and national policies toward key world powers, and decisions concerning "sensitive" countries and issues.[2]

Who was in the leading nucleus in the late 1970s and 1980s? By Lu's logic, certainly Deng and a handful of top-level ministers, Communist Party leaders, and PLA commanders. However, the Foreign Ministry, Politburo, and PLA had limited power over foreign policy, according to Lu.[3]

How does the NCNA fit into this centralized power structure? There is a very direct line of communication. The NCNA during the Deng era reported to the Chinese Communist Party Department of Propaganda, which in turn reported to the CCP Central Committee,[4] and, by extension, the select Standing Committee of the Politburo, the key decision-making leadership group that included Deng. This is a crucial connection: This thesis assumes that the NCNA English service has an important mouthpiece role

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[2] Ning Lu, "The Central Leadership, Supraministry Coordinating Bodies, State Council, Ministries, and Party Departments," in David M. Lampton, ed., *The Making of Chinese Foreign and Security Policy in the Era of Reform, 1978-2000* (Stanford, CA: Stanford University Press, 2001), 44.

[3] Lu, 52-61.

[4] Chang Won Ho, *Mass Media in China: The History and the Future* (Ames: Iowa State University Press, 1989), 195.

propagating the policies and positions of China's leading nucleus to other countries. As noted by Robin Porter, a former editor for the NCNA's English service in the late 1970s:

> Occasional errors of syntax in English translation would get through [the editing] process, but errors of line almost never did; the [NCNA External Department] carried responsibility for ensuring that China's policies were understood overseas, and political errors were unacceptable.[5]

The news, reports, communiqués, and editorials published by the NCNA can therefore be seen as a reliable barometer of official views on many issues that China wants communicated to the outside world.

The foreign policy/NCNA connection aside, using state-run media to better understand PRC policy is not a new concept. Nor should it be surprising, considering the close relationship between Chinese media and the Chinese Communist Party. Lenin articulated the three purposes of journalism, namely, to disseminate propaganda, agitate the people, and further the goals of party organization.[6] These ideas were held very dear by Mao Zedong himself: Much of his early party work involved writing articles for party-affiliated publications.

Among Western scholars, the use of the Chinese press has long been recognized as an authoritative source of the policies and attitudes of the Chinese leadership. Roger Garside recognized this in the crucial transition period following the 1976 death of Mao Zedong, noting that Beijing residents — Chinese and foreign — paid close attention to official press reports:

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[5] Robin Porter, *Reporting the News from China* (London: Royal Institute of International Affairs, 1992), 6.

[6] J. Herbert Altschull, *Agents of Power: The Media and Public Policy* (White Plains, NY: Longman Publishing USA, 1995), 211.

> Small changes in emphasis, the reformulation of a set phrase, the appearance of a new slogan or the quiet dropping of an old one occurred only by design and reflected a political development whose meaning one must search for.[7]

Robert Ross, whose qualitative research on Sino-Vietnamese relations will be tested in this paper, noted that Chinese media are the "most valuable" research available to those studying Chinese foreign policy. Unlike interviews with Chinese officials, who may feel pressured to toe the current official line for fear of revealing state secrets or suffering reprisals, Chinese media reports serve as statements of policy and evaluations of other countries from a specific point in time. To interpret Chinese news coverage, Ross said that other sources and factors need to be taken into consideration: Known events and relationships, an understanding of the "arcane and specialized vocabulary" used by the Party and diplomats, and hypotheses to guide researchers through "ambiguous" news reports.[8]

While both Garside and Ross selectively and qualitatively used Chinese media to support their arguments, there exists a significant body of quantitative research — mostly hand-coded and machine-tabulated content analyses — relating to Chinese press outlets. It tends to focus on journalism and media theory as it relates to current affairs, as opposed to historical research. Still, the methods used in such studies are instructive. Lu Xinlu (1996) performed a content analysis on English-language reports submitted by Chinese state-run television to CNN before and after the 1989 Tiananmen Square demonstrations. Yu found an increase in political news and a decrease in negative news in the Chinese television reports immediately after the crackdown, but by 1994 the tone and subject

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[7] Roger Garside, *Coming Alive: China after Mao* (New York: McGraw Hill, 1981), 3.

[8] Robert S. Ross, *The Indochina Tangle: China's Vietnam Policy 1975 – 1979* (New York: Columbia University Press, 1988), 273

matter of the reports had largely returned to pre-1989 levels.[9] Hugh Culbertson (1997) conducted content analysis of coverage in the English-language China Daily newspaper relating to rural development in the mid-1990s and found it closely adhered to the official line on rural development policies.[10] Note that these studies are not CCAs; both Yu and Culbertson used manual coding techniques rather than computer programs in their content analyses.

Content Analyses of Political Texts

This brings us to the literature pertaining to content analysis. Manual and automated content analysis of media sources has been a staple of media studies and international relations for decades. A groundbreaking content analysis was carried out by Harold Laswell, Daniel Lerner, and Ithiel de Sola Pool (1954) at Stanford University. They were interested in analyzing phrases (which they called "themes") in political communications as a tool to understand the factors at work in international relations:

> When it is desired to survey politically significant communications for any historical period on a global scale, the most practicable method is that of counting the occurrence of key symbols and clichés. Only in this way can the overwhelming mass of material be reliably and briefly summarized. By charting the distributions in space and time, it is possible to show the principle contours of … political history.[11]

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[9] Lu Xinlu, "What Does China Want the World to Know: A Content Analysis of CNN World Report Sent by the People's Republic of China," *Gazette: The International Journal for Communications Studies* (Leiden, Netherlands) 58 (1996): 17.

[10] Hugh M. Culbertson, "'China Daily' Coverage of Rural Development: A Broad Window, or a Small Peep-Hole? *Gazette: The International Journal for Communications Studies* (Leiden, Netherlands) 59 no. 2 (1997): 106.

[11] Harold D. Laswell, Daniel Lerner, and Ithiel de Sola Pool, *The Comparative Study of Symbols: An Introduction*. Hoover Institute Studies, Series C, No. 1 (Stanford, CA: Stanford University Press, 1954), 16.

To carry out their study, they employed a rigorous manual coding regimen and statistical techniques (using primitive machine tabulation) to gather data and perform their analyses. In the 1960s, researchers began experimenting with using computers to automatically code linguistic information found in texts.

More recently, researchers have employed CCAs that greatly speed data collection and analysis, and reduce human error and coder bias. Michael Laver and John Garry employed a dual-stage content analysis using hand-coded and computer-coded schemes to examine party manifestoes and other political texts from British and Irish political parties. The authors not only concluded that their methodology could be used to derive "reliable and valid estimates of policy positions from political texts," but could also be used to check the results of surveys and analyses conducted by others.[12]

Qualitative Research into Sino-Vietnamese Relations during the Deng Era

English-language research relating to Sino-Vietnamese relations during the Deng era is overwhelmingly qualitative in nature. Much of the literature concerns specific, bilateral issues, especially the "Boat People" crisis and the two countries' overlapping territorial claims in the South China Sea. Such research will not be described here, as those issues are tangential to the example used in this paper. Instead, I will describe some recent historical background and how McGregor and Ross approached the question of whether China was more worried about Soviet encirclement or Vietnamese expansion during the late 1970s and 1980s.

[12] Michael Laver and John Garry, "Estimating Policy Positions from Political Texts," *American Journal of Political Science* 44, no. 3 (July 2000): 619.

Although China and Vietnam have a long shared history that has often been marred by war, the sharp deterioration in bilateral relations in the late 1970s and the fierce border war of 1979 were rooted in a number of relatively recent domestic, regional, and international developments.

Hanoi and Beijing had been nominal allies during the Vietnam War. Both governments were Communist, and China had sent a great deal of military aid to North Vietnam. Overshadowing this alliance, however, was the Soviet Union. Beijing had experienced an intense global rivalry with Moscow following the Sino-Soviet split in 1960, as the two Communist giants tried to sway smaller Communist states into their respective orbits, often using economic or military aid. For instance, China and the Soviet Union both supplied North Vietnam with arms and other military assistance. Still, as the war progressed and the U.S. involvement became deeper, Hanoi began to tilt more toward Moscow's axis, partially as a result of China's contributions to political turmoil in Indonesia in the mid-1960s; and partially the result of the excesses of the Cultural Revolution, which Vietnam not only viewed as excessive and deviating from Marxist-Leninist orthodoxy, but also interfered with the delivery of Soviet war materiel to Vietnam via overland routes in China.[13]

The mid-1970s was a period of political and social transition for both countries. In China, the Cultural Revolution and the old political order headed by paramount leader Mao Zedong ended in 1976, the year Mao died. There was a period of political turmoil that faded as Deng Xiaoping returned from political isolation in 1977, and ended when he took the reins of power following the December 1978 meeting of the Chinese Communist

[13] Stephen Morris, *Why Vietnam Invaded Cambodia: Political Culture and the Causes of War* (Stanford, CA: Stanford University Press, 1999), 130-139.

Party Central Committee. Simultaneously, Vietnam was undergoing its own transition. In 1975, the U.S. had withdrawn from Indochina, and Communist North Vietnam had forced reunification with the South. For the remainder of the decade, Vietnam attempted to rebuild itself while shutting down the capitalist system that had dominated the South.

Ross, whose analysis of post-1975 Sino-Vietnamese relations were discussed in his 1988 book, *The Indochina Tangle: China's Vietnam Policy 1975–1979*, as well as in two papers published in the early 1990s ("China and Post-Cambodia Southeast Asia: Coping With Success," and "Tripolarity and Policy Making") stated that Hanoi's continuing shift toward Moscow in the 1970s, as well as the United States' disengagement from Southeast Asia and resulting power vacuum, led to a critical erosion in Sino-Vietnamese relations in the second half of the 1970s. As for Vietnam's invasion of Kampuchea, its persecution of overseas Chinese, and overlapping territorial disputes, these were either "catalysts or symptoms" of the larger dispute involving China's concerns over Hanoi's dance with Moscow.[14]

According to Ross, the fear of Soviet encirclement extended into the following decade. Throughout the 1980s China's "major objective" in Vietnam was reducing Soviet influence.[15] Ross' thesis mirrored the views of other Western observers such as Richard Evans, the former British ambassador to China, who saw Soviet military expansion in Vietnam and military aggression in Afghanistan as manifestations of Moscow's

[14] Ross, *Tangle*, 10.

[15] Robert S. Ross, "China and Post-Cambodia Southeast Asia: Coping With Success." *Annals*, American Academy of Political and Social Science, 519 (January 1992): 54.

hegemonist plan to make the USSR the dominant power in Asia, thereby neutralizing Chinese and American strengths.[16]

There was an abrupt shift in Sino-Vietnamese relations following the momentous events of 1989, including Vietnam's withdrawal from Kampuchea, and the collapse of the Soviet support system for smaller Communist states. Following these developments, Ross said relations between Beijing and Hanoi were characterized by détente.[17]

At about the same time Ross' *The Indochina Tangle* was released, Charles McGregor wrote a 90-page analysis of the trilateral relationship between China, Vietnam, and the Soviet Union, entitled *The Sino-Vietnamese Relationship and the Soviet Union*. Their assessments of Sino-Vietnamese relations in the late 1970s were similar. Both agreed that China mainly feared the Hanoi/Moscow axis because of the potential for Soviet encirclement.[18]

However, McGregor came to a different conclusion regarding China's views of Vietnam in the 1980s. He stated that the USSR's restraint in the 1979 Sino-Vietnamese border war convinced China that the Soviet-Vietnamese alliance was not as significant a threat as had been originally supposed.[19] Thereafter, China was most concerned with Vietnamese military strength and expansion in Indochina and Southeast Asia, as opposed to worries over Soviet encirclement. This does not mean McGregor dismissed the Soviet threat. In fact, he noted that China saw the Soviet Union in the 1980s as its "principle

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[16] Richard Evans, *Deng Xiaoping and the Making of Modern China* (New York: Penguin Books, 1997), 260.

[17] Ross, *Annals*, 58

[18] Charles McGregor, *The Sino-Vietnamese Relationship and the Soviet Union,* Adelphi Papers 232 (London: International Institute for Strategic Studies, 1988) 61; Ross, *Tangle*, 3.

[19] McGregor, 62

strategic threat" on the world stage.[20] But in Vietnam, McGregor said the Soviet presence combined with other factors to take on a distinctly regional threat for China:

> The [Soviet military bases in Vietnam] are not seen by the PRC as the most dangerous aspect of the Soviet-Vietnamese alliance. It is a strong Vietnam armed by the Soviet Union, rather than Soviet strength itself in Vietnam, that China sees as the greater danger to its security and regional policies. The Soviet Union strengthens Vietnam in two ways: by deterring a Chinese attack in Vietnam, and by giving Vietnam military aid.[21]

How could McGregor and Ross be in such agreement over China's official views of Vietnam in the late 1970s, yet have such fundamental differences over the situation in the 1980s? After all, the two researchers used similar qualitative methodologies to reach their respective conclusions. They worked within the same realist framework, and paid close attention to the roles of the Soviet Union and the United States in influencing Chinese policy in Vietnam, Kampuchea, and Southeast Asia. They used techniques associated with Beijingology, carefully examining official appointments and statements for evidence in policy or personnel shifts. They referenced the same types of evidence — events, references to diplomatic meetings, details of Soviet military and economic assistance, recent history, and individual NCNA and *People's Daily* news articles. Indeed, they sometimes cited the exact same evidence, such as specific events and meetings, Chinese media articles, and books by other researchers.

But there are some notable differences in their approaches. For instance, while there is some overlap in the sources used, most of the primary and secondary references appear only in one author's work. In other words, they are using different data in their

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[20] McGregor, 33

[21] McGregor, 67

interpretations, which leads to different lines of enquiry and sometimes different conclusions (including many not discussed in this paper).

Their respective backgrounds must be considered as well. Ross has a traditional American academic background, and *The Indochina Triangle* is based on his Columbia University PhD dissertation. McGregor has a journalism background, serving as a writer on Asian affairs for the BBC before taking post-graduate work at Oxford. He was an analyst at Global Analysis Systems when he wrote *The Sino-Vietnamese Relationship and the Soviet Union*. These varied academic and professional experiences had a major impact upon the respective sources they used. McGregor relied heavily upon translated Chinese and Vietnamese media reports appearing in the BBC Summary of World Broadcasts (Far East), and the Foreign Broadcast Information Service's *Daily Report: PRC*. Ross did not use the BBC, but frequently referenced FBIS reports, as well as NCNA dispatches, the *People's Daily*, the *New York Times*, and the Vietnam News Agency. Ross' bibliography for *The Indochina Tangle* includes more than 250 books and journal articles, compared to less than 100 for McGregor's tract. Additionally, while Ross interviewed U.S. officials such as former National Security Adviser Zbigniew Brzezinski and Secretary of State Cyrus Vance, he felt interviews with Chinese officials on classified subjects were of "limited value," because they were reluctant to reveal sensitive information, and tended to repeat Beijing's official line.[22] McGregor seems to have taken the opposite approach to interviews — his bibliography cites several interviews with Chinese officials and experts, as well as with Thai and Japanese observers, but does not mention any such exchanges with Western experts, scholars, or diplomats.

[22] Ross, *Tangle*, 267.

Besides using different kinds of sources, Ross and McGregor also gave different weightings to the sources. One notable example was references to China and Vietnam's shared history. Ross examined the evolution of Sino-Vietnamese interactions in the context of superpower relations and conflict in Indochina, but only going back to the 1960s. He additionally mentioned Vietnam's traditional role as a tributary state to China, but did not cite this as a major factor in the Deng-era relationship. McGregor, on the other hand, repeatedly referred to the complex and long shared history of China, Vietnam, and Kampuchea. For instance, he noted a 1979 propaganda pamphlet written by a Vietnamese politburo member that highlighted a Chinese-Kampuchean axis going back 900 years — the document noted that conflict on Vietnam's northern border are almost always related to existing conflict between Vietnam and its southern neighbors.[23]

Collectively, these differences highlight the selective nature of qualitative research into modern Chinese history and foreign policy, and the potential for researcher bias to impact hypotheses, research processes, and analysis. Aside from the interviews, McGregor and Ross ultimately had access to the same wealth of primary and secondary source materials. They were able to choose and highlight the sources — including authoritative Chinese sources, such as official statements and NCNA articles — that were most convenient, relevant, useful, or complementary to their respective theses.

This does not mean Ross and McGregor were wrong, or their sources were flawed. They convincingly and expertly cite evidence and argue their respective points of view. And, as we shall see in Chapter III, quantitative methodologies support their shared Soviet-focused findings for the late 1970s, McGregor's conclusion that China in the 1980s was more worried about Vietnam as a regional rival, and Ross observation about

[23] McGregor, 39.

Sino-Vietnamese détente in the early 1990s. Still, the fact that Ross' Soviet-themed thesis for the 1980s is not supported by a rigorous CCA of China's official mouthpiece press outlet suggests that qualitative methodologies can create opportunities for researcher bias, or lead researchers astray. Furthermore, such flaws can be extremely hard to detect — for instance, Ross cited numerous official sources that indicated China was indeed extremely concerned about the Soviet-Vietnamese alliance in the 1980s. However, he failed to give as much credence to official Chinese sources that reflected worries over Vietnam's regional designs. And neither Ross nor McGregor attempted to quantify the sentiment expressed by Beijing, other than to note increases and decreases in Chinese military and economic assistance.

Significance

The CCA techniques described in this paper are designed to promote the use of quantitative research in the study of modern Chinese history, and to enable a better understanding of China's foreign policy outlook toward Vietnam from the late 1970s to the early 1990s.

Unlike the qualitative approaches taken by McGregor and Ross, which selectively referenced official documents and statements, the CCA schemes used in this paper examined the entire output of the NCNA during the period under study. This involved thousands of focused searches in an online database, the creation of topic-specific samples that were analyzed by text-analysis software, and the creation of a large spreadsheet to store, calculate, and compare all of the results. A great deal of planning and data-entry tasks were required to undertake this quantitative research, but the results

are worth it: They provide precise measurements of the types of Vietnam-related issues that concerned Beijing most, and a gauge of positive and negative sentiment relating to Vietnam's alliance with the Soviet Union and Hanoi's regional intentions. The results confirm McGregor's and Ross' shared finding that China was most concerned about Vietnam's strengthening relationship with the Soviet Union in the late 1970s. The quantitative data also solidly backs McGregor's regional-focused thesis for the 1980s — i.e., China was most worried about Vietnam's regional intentions — while rejecting Ross' supposition that China was still most concerned with the idea that Vietnam was a pawn in Soviet scheme to encircle China. Lastly, the CCA provides metrics that illustrate the reduction of Sino-Vietnamese tensions in the early 1990s, following Vietnam's military withdrawal from Kampuchea and the disintegration of Soviet power in the region.

Outside of this topic area, the findings from the CCA also hint that Beijing may not have been as concerned about Soviet involvement in other contemporary disputes taking place on the Chinese frontier in the 1980s as has been commonly assumed. More research would be required to gauge official Chinese sentiment regarding specific, regional issues, but this NCNA-based CCA provides a template for future inquiry. Indeed, this paper demonstrates that computer- and data-driven quantitative research can play an important role in understanding modern Chinese history, by helping to confirm, reject, or clarify existing research findings.

Chapter II

Methodology

Scholars attempting to understand China's views of and policies toward Vietnam during the Deng era are greatly aided by a wealth of primary source materials. Events and actions, such as diplomatic missions, military deployments, or war, are one type of evidence. Official statements are another type of primary source material. They might include interviews or press conference transcripts, treaties, press releases, or other types of government documents.

The NCNA has proven to be an extremely reliable source of official statements. Ross, McGregor, and many other Western scholars have regularly turned to the Chinese news agency to illustrate Chinese policy or thinking regarding foreign affairs, and no wonder: The articles and other content published by the NCNA are often *de facto* press releases and policy statements. They highlight events, developments, and official statements that China wants to promote or thinks are significant. They never criticize or question the government's handling of foreign affairs. They frequently editorialize, but always in line with official policies and goals.

The NCNA is also consistent. Senior officials and government spokesmen may come and go, but the NCNA has been the official mouthpiece of the People's Republic of China since its inception, publishing nearly every day since 1949. The NCNA's English-language electronic record goes back 30 years, and includes hundreds of thousands of articles and other pieces of content. This consistency — and the online availability of

NCNA archives — makes it ideal for a longitudinal content analysis. For this research paper, NCNA content was accessed from the searchable online database of the LexisNexis Academic service, which contains a complete archive of NCNA English-language news items (articles, briefs, communiqués, and other text content) going back to January 1, 1977.

Using LexisNexis, Microsoft Excel, and an open-source text analysis program called Yoshikoder, the NCNA content was analyzed in three ways: raw frequency counts of certain kinds of news items; "dictionary reports," which took sampled news items and counted the proportion of words that matched custom, NCNA-specific positive and negative dictionaries; and "concordance reports," which used the same samples and dictionaries to gauge the positive and negative tone of the language used around "Vietnam" and related terms. The three content analysis protocols are described in complete detail below, followed by a description of the research limitations. Definitions, lists of search terms, variables, and other values are included in the appendices.

Stage 1: NCNA News Item Frequency Counts

The purpose of this CCA technique was to establish the frequency of NCNA news items that mentioned certain countries and organizations, either alone or in combination with other countries and organizations. How often the NCNA published news items about or related to a specific country can serve as a gauge of how important Beijing regarded that country. This is not a new concept. Using sampled *China Daily* articles from January 1989 to June 1993, Robert Stone counted the frequency of references to policy pronouncements relating to certain countries, regions, and international organizations. He

concluded that China's most important bilateral relationship during this period was with the United States, because 12.23% of sampled articles contained foreign policy pronouncements dealing with the U.S., more than any other country. Moreover, the fact that 48.49% of all sampled articles dealing with foreign policy matters related to the Pacific Rim led Stone to conclude that China saw itself as a regional power, as opposed to a global power. He also interpreted the high number of policy references to Hong Kong (17.2%), Taiwan (10.53%), Tibet (4.25%), and Macau (1.44%) as an indication that "China's principle foreign policy goal seems to be the recovery of its national integrity."[24]

To measure the frequency of NCNA news items about a specific country during the Deng era, a census of all NCNA news items was gathered. The first step involved counting every NCNA news item by month from January 1977 to December 1993, using the search form of the LexisNexis Academic website, and searching for "item no" (item number), which appears in every NCNA news item in the LexisNexis database. The monthly totals were copied and pasted into an Excel spreadsheet.

Next, I built lists of terms corresponding to five countries (Vietnam, Kampuchea, Laos, the Soviet Union, and the United States) and two international organizations (the United Nations and the Association of Southeast Asian Nations). The terms were created by visual inspection of NCNA news items, and by performing test searches to determine any alternate terms for each country/organization and terms to exclude. The lists can be reviewed in Appendix 2, "Search Terms Used in Stage 1 Frequency Counts."

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[24] Robert Stone, "Speaking to the Foreign Audience: Chinese Foreign Policy Concerns as Expressed in *China Daily*, January 1989-June 1993," *Gazette: The International Journal for Communications Studies* (Leiden, Netherlands) 53 (1994): 46

The ultimate goal of building these lists was to create as accurate a tally as possible of all news items relating to each country and organization. Terms included names of countries and capitals, alternate spellings, the names of senior officials, acronyms, UN agencies, and other words that would be included in NCNA news items to describe the five countries and two international organizations. For instance, the following list was used to search LexisNexis for NCNA news items about Vietnam:

vietnamese or vietnam or "viet nam" or hanoi

"Viet nam" was the spelling used by the NCNA for much of the period under study; placing the term in quotation marks ensured that the LexisNexis search engine looked for this exact phrase.

There were some problems building the seven lists, however. LexisNexis searches are not case sensitive. Searches strip out punctuation, and do not distinguish between singular and plural forms. For several countries, wildcard characters or a list of excluded terms were incorporated into the LexisNexis searches, to eliminate unwanted news items that had nothing to do with the five countries or two international organizations.[25] For terms relating to the United States, there were a host of problems that could not be overcome by exclusions and wildcard characters. These problems and the impact on the dataset are explained in Appendix 6.

The Vietnam (V), Kampuchea (K) and Laos (L) lists were input into the LexisNexis database alone, with each other (e.g., V+L), and with the other superpower lists (Soviet Union/Russia [S] and the United States [U]) and international organization

[25] See "Additional notes," Appendix 2.

lists (United Nations [I] and ASEAN [A]). There were 22 permutations in all (e.g., V, V+K, V+K+U, V+K+A, etc.). Excel's basic math functions revealed an additional two-dozen combinations based on exclusions (e.g., V+K-S).

I performed full-text searches on articles, as opposed to searches based on just the headline or the headline and first paragraph. There is a reason for this: Full-text searches cast a wide net, capturing references to both major and minor issues relating to a particular country or organization. For instance, an NCNA news item may have mentioned a country in an insignificant and neutral context (e.g., in a news item about a diplomatic banquet, the Kampuchean ambassador is mentioned in the fifth paragraph) or an important and critical context (e.g., a news item about the United Nations debating the Vietnamese occupation of Kampuchea). But regardless of the importance of the reference, its inclusion in an NCNA news item was not by accident, or NCNA journalists simply writing about the events of the day. The fact that an issue was mentioned reflects the concerns of the Chinese leadership to some degree, regardless of whether the reference was significant or in passing, or was described in a positive, negative, or neutral tone. Measured in aggregate by using full-text searches, these collective references serve as indicators of China's views and priorities regarding Vietnam, other countries in Indochina, the two superpowers, and the two international organizations.

Approximately 5,000 full-text searches were performed, to build a census of NCNA news items, and to determine the monthly tallies for the lists of terms and combinations of lists. Appendix 3 describes the individual country/organization lists and combinations of lists used in stage 1 frequency counts.

Stage 2: Yoshikoder Dictionary Reports of Sampled NCNA News Items

This stage of the CCA was designed to measure the tone of NCNA coverage using custom positive and negative dictionaries of terms commonly used by the state-run media outlet. This involved inputting yearly samples of NCNA news items into Yoshikoder, an open-source content analysis program, which then tested the samples against the custom NCNA positive and negative dictionaries. By measuring the negative/positive tone of different types of samples, the attitude of the Chinese leadership toward Vietnam and certain related issues could be ascertained.

Key to this stage of the CCA were the dictionaries used to gauge positive and negative tone. Although positive and negative dictionaries from the General Inquirer[26] content analysis program were readily available, these were not very effective in analyzing the tone of sampled NCNA news items. GI dictionaries have been used to analyze English-language political texts in the past, but they are relatively tame — they do not include many of the terms regularly used in NCNA coverage, which are characterized by flowery terms and invective at either end of the positive/negative spectrum. Therefore, I constructed custom NCNA dictionaries. This was done by taking a random sample of 21 NCNA news items from 1977 to 1993 and saving them into a single text file, where they could be subjected to Yoshikoder's word count function. A manual review of the resulting list of words identified hundreds of positive and negative terms and variations.[27] These were copied and pasted into two separate text files that became

[26] The General Inquirer is another dictionary-based content analysis program that can assess emotion, cognitive orientation, and word patterns in text samples. See the Inquirer Home Page at http://www.wjh.harvard.edu/~inquirer/ for more information.

[27] Certain words, such as "secured," can have positive, negative, or neutral associations depending on the context in which they are used. Such terms were assigned to positive or negative dictionaries — or

the NCNA negative and positive dictionaries. Further, words in the NCNA negative dictionary with obvious military connotations (ambush, bases, regiment, etc.) were entered in an NCNA military dictionary that was used to measure military tone in the NCNA samples. Appendix 4 lists all of the words used in the three dictionaries.

The yearly samples were based on five types of NCNA news items, which can be further divided into two categories corresponding to the McGregor/Ross research divide: Sampled items that covered issues relating to Vietnam and the Soviet Union, and sampled items that explored issues relating to Vietnam and other countries in the Southeast Asian region. Within these two broad categories of samples, there were subsets based on exclusions of certain countries, or groups of countries, which helped isolate factors such as Vietnam's Kampuchean war and occupation. The Vietnam-Soviet focused news item samples included the following two types:

> I - Vietnam, the Soviet Union and associated terms were used in the headline, but those terms relating to Kampuchea, the United States, and other Southeast Asian countries were not mentioned in the full text
>
> II - Vietnam, the Soviet Union and Kampuchea and associated terms were used in the headline, but those terms relating to the United States and other Southeast Asian countries were not mentioned in the full text
>
> The regionally focused samples included three types of news items:
>
> III - Vietnam, Kampuchea and associated terms were used in the headline, but those terms relating to the Soviet Union, the United States, and other Southeast Asian countries were not mentioned in the full text
>
> IV - Vietnam, Kampuchea and other Southeast Asian countries and associated terms were used in the headline, but those terms relating

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excluded — according to their most likely usage in NCNA content. For instance, "secured" was included in the NCNA positive dictionary.

to the Soviet Union and the United States were not mentioned in the full text

V - Vietnam, other Southeast Asian countries and associated terms were used in the headline, but those terms relating to the Soviet Union, Kampuchea, and the United States were not mentioned in the full text

Unlike the full-text searches used in the NCNA frequency counts (Stage 1), the samples used in the Yoshikoder dictionary reports (Stage 2) were identified through searches for terms in the headline only. This was done to focus the samples on major issues related to the countries and organizations in question, and remove from consideration those news items that only mentioned the countries and organizations in passing and could potentially skew the results of the dictionary reports.[28] Restricting searches to the headlines more accurately measured the negative and positive tone of the samples that directly addressed Beijing's views of Vietnam, its relationship with the Soviet Union, and its regional ambitions.[29] The search criteria for all sample types are listed in Appendix 5.

While the headline condition improved the quality of the samples, it unfortunately reduced the quantity of news items available to be sampled. For instance, LexisNexis searches for Type V news items in 1978 turned up only four results. In other words, just four NCNA headlines that year mentioned Vietnam and other Southeast Asian countries

[28] For example, a full-text LexisNexis search for the Type I sample terms would include in the results "Kenyan newspaper criticizes Pretoria's aggression against Angola," (Nov. 20, 1987), as it contains words that match the NCNA negative and NCNA military dictionaries. However, the references in this news item to "Vietnam" and the "Soviet Union" are insignificant, and unrelated to developments in Vietnam or Chinese views of Vietnam's relationship with the Soviet Union.

[29] However, the exclusions in the samples were based on full-text searches of news items (i.e., the Type I samples did not include any news items containing "Kampuchea" or related terms anywhere in the text of the articles). This ensured that the samples were filtered of any unwanted terms and direct references to issues that might cloud the results and prevent useful comparisons.

in the region, while excluding references to Kampuchea and the superpowers in the full text of the news items. That compares with 68 Type V news items in 1979, and 35 Type V news items in 1980. The problem was particularly acute for the Type II news items; after 1980 the NCNA rarely mentioned the Soviet Union and Kampuchea in the same headline, and there were six years (1977, 1985, 1990-1993) in which there were no NCNA news items matching the Type II search criteria.

A yearly sample with only a few news items is more likely to yield skewed dictionary reports — a single, hyperbole-laden commentary could conceivably double the negative or positive rates even if the handful of other items in the sample are run-of-the-mill dispatches. I therefore decided to exclude from consideration those yearly search results for any of the five types that had less than five news items. If there were between five and ten news items, all were combined into a single text file and then input into Yoshikoder to make the dictionary report. If there were more than 10 news items, I used an Internet-based random-number generator[30] to choose ten news items to include in the sample.

Besides the five sample types described above, I also created a sixth type, a benchmark sample consisting of NCNA news items that included terms associated with both China and Vietnam in the headline, but excluded references to every other country and organization in the full text. In other words, Type VI items were focused on bilateral issues that China did not directly link with other international players.

For each year in which there were enough news items, a single text file was created with all of the news items (if there were between five and 10 that year) or a

[30] Geoffrey C. Urbaniak, Scott Plous. Research Randomizer. Available from http://www.randomizer.org/form.htm

sample of ten news items for that particular type's search criteria. Each of these text files was run against the NCNA negative and positive dictionaries. To verify the sensitivity of the custom NCNA dictionaries, the samples were simultaneously run against the General Inquirer negative and positive dictionaries. The results of each dictionary report were expressed as a proportion of the words in the sample that matched any one of the terms in the custom dictionary being used.

Stage 3: Yoshikoder Concordance Reports of Sampled NCNA News Items

Like the Yoshikoder dictionary reports (stage 2) described above, the Yoshikoder concordance reports are designed to gauge the tone of sampled NCNA news content. However, whereas the dictionary reports analyzed sampled NCNA news items, the concordance reports were more focused: The sampling units were the text surrounding the word "Vietnam" (and associated terms, such as "Hanoi") within the NCNA samples. By examining the context around "Vietnam" in different types of sampled news items, it was possible to measure Beijing's negative and positive associations for issues relating to Vietnam and other countries in Southeast Asia, vs. Vietnam and the Soviet Union.

The third stage of the CCA relied upon the same NCNA dictionaries, sample types, yearly samples, and exclusions (i.e., yearly samples for which there were less than five news items were discarded) that were used in the dictionary reports (Stage 2). To build the concordance report, a sample of NCNA news items was loaded into Yoshikoder. This generated a "concordance," which showed the context in which terms relating to Vietnam were used. The terms included Vietnam, Vietnamese, Hanoi, and "Nam." The default "concordance window" is two words on either side of the chosen

terms, but I experimented with larger concordance windows to capture enough descriptive language to correctly gauge the context of the references to "Vietnam" while avoiding capturing positive or negative terms that referred to other issues in adjoining sentences. I eventually settled on a concordance window stretching five words in either direction, which I felt captured enough text to make useful measurements. However, as the following two examples demonstrate, the larger concordance window sometimes captured unwanted text:

> China's new ambassador to viet **nam** DATELINE hanoi october 11 1977
>
> threat to the leadership in **hanoi** the vietnamese authorities had all

The first concordance is not ideal, as it included text from an adjoining sentence (the article's dateline) that is not directly related to the sentence in which "viet nam" appeared. In other words, the context is not derived from the same sentence or paragraph, but rather from adjoining paragraphs or other information related to publication. None of the ten terms in the first concordance would trigger an NCNA or GI dictionary match. However, the use of "threat" in the second concordance would trigger matches for both the NCNA and GI negative dictionaries.

A typical yearly sample might contain dozens of references to Vietnam, each one surrounded by ten words. These contextual terms — typically hundreds of words per yearly sample — were then compared to the NCNA and General Inquirer dictionaries, yielding figures that reflected the number of matches for each dictionary as a percentage of all the words in the sample.

Research Limitations

A general problem with using NCNA news items to gauge China's official views and policies involves the deliberate reduction or elimination of coverage relating to sensitive issues. For example, there were few news items in the NCNA English-language wire service about the Tiananmen demonstrations in the spring of 1989, until foreign media attention forced the Chinese leadership to publicly acknowledge the crisis to the rest of the world.

However, issues that the NCNA deliberately underreports or avoids tend to be domestic political and social problems that China does not want to acknowledge overseas. This is partially related to a tendency to downplay such issues, but China's extreme sensitivity to foreign criticism[31] is a factor as well.

Such domestic problems are quite different from sensitive international issues, in which China wants its views to be known to the rest of the world, not only to influence other countries and international opinion, but also to counter critical publicity from foreign governments or press reports. Additionally, holes in NCNA coverage are usually easily detected and acknowledged, thanks to inconsistencies with known events and research from other sources.

Still, reduced NCNA coverage of Vietnam-related issues for any reason affected the quantity and quality of data that could be analyzed using CCA techniques. A lack of NCNA news items for certain sample types in certain years impacted the Yoshikoder dictionary and concordance reports (stages 2 and 3 of the CCA). Years in which there

[31] Steven Levine, "Perception and Ideology in Chinese Foreign Policy," in David Shambaugh and Thomas W. Robinson, eds., *Chinese Foreign Policy: Theory and Practice* (New York: Oxford University Press, 1994), 43.

were too few news items for a sample Type were not analyzed in Yoshikoder, owing to the high probability of a single article significantly raising or lowering the proportion of dictionary matches. Sample types in which there were no applicable news items for a given year were totally useless, as there was no possibility of generating any useful data.

The sample types that were most helpful in analyzing Chinese views of Vietnam were I, V, and VI, but only Type V (Vietnam and regional terms in the headline, Kampuchea and superpowers excluded from the full text) consistently had enough items to build a usable dataset throughout the period under study (except 1978). By comparison, the Type I dataset (Vietnam and Soviet Union terms in the headline, Kampuchea, the United States, and other regional countries excluded from the full text) had to exclude 1977, 1981, 1982, 1984, 1989, 1990, 1992, and 1993, owing to a lack of data. Type VI — the benchmark dataset based on strictly bilateral news items about China and Vietnam — excluded 1984, 1987, and 1988. These holes in the datasets made comparative assessments of NCNA coverage impossible for certain years, especially during the late 1970s and early 1980s.

An additional research limitation related to the lists of terms used to search the LexisNexis online database. As noted earlier, building accurate lists of search terms corresponding to specific countries and organizations was key to gathering valid data. The purpose of building the lists of terms for the NCNA frequency counts (Stage 1)[32] was to get an accurate monthly tally of NCNA news items for each of the variables and combinations of variables. For the dictionary and concordance reports (stages 2 and 3),[33]

[32] See Appendix 2.

[33] See Appendix 5.

the lists were needed to identify articles that fit one of six types, in order to build useful samples for analysis and comparison.

There were varying degrees of difficulty in determining the terms that made up the lists of terms corresponding to each of the countries and organizations. For Vietnam (V), it was very easy to build a list. It contained just four terms — Vietnamese, Vietnam, "viet nam", and Hanoi — all proper nouns that could not be confused with other nouns or concepts described in the 719,391 news items published by the NCNA from 1977 to 1993. The ASEAN (A) list was also very straightforward: Only two terms applied, which could not be confused with any other unrelated words.

Kampuchea (K), Laos (L), Soviet Union/Russia (S), and the United Nations (I) required more carefully structured searches. The names of politicians were used in some searches, and in the case of the United Nations, special programs and acronyms such as UNICEF were included. Restrictions were created by excluding unrelated terms would otherwise turn up in searches (such as words containing "Lao" in the Laos searches; see chapter 2, section A). The names of U.N. secretaries general were searched along with their title to avoid triggering hits on people with the same last name.

Building a list of terms for the United States (U) was the most difficult. Searches for the last name of President George H.W. Bush also returned NCNA news items that mentioned shrubbery and trees. "America" was also used in many NCNA news items about Latin America. Carefully structured search terms took care of some of these problems. For instance, I isolated references to President Bush by using the parenthetical search string "Presiden! w/3 Bush," which only returned the word "Bush" if it were referenced within three word-lengths of "president" or "presidential."

Other ambiguous references could not be resolved. LexisNexis does not recognize punctuation or capital letters, so the database equates “U.S.” with the pronoun “us.” “America” and “American” could not be added to the list, because these terms also correspond to North America, Latin America, Central America, South America, and non-U.S. countries within those regions. “Congress” and “Senate” turned up in stories about non-U.S. countries (including China), and were therefore not included in the search terms. Lastly, a news item that mentioned an American company by name but not any other term related to the United States could not be automatically counted, because there are too many American companies starting Chinese operations during the Deng era and no way to build a list of firms without manually reviewing NCNA news items.

For these reasons, United States news items were undercounted in this CCA. I do not believe the disparity was large. The United States had disengaged from Indochina in the late 1970s and 1980s, and the NCNA seldom had reason to mention the country in news items about Vietnam, Kampuchea, and Laos, except as historical background and international commentary relating to the war in Kampuchea. Additionally, even though the words listed above could not be used in LexisNexis searches of the NCNA database, other high-profile terms could — including “United States,” “Washington,” and “USA.”

The lists of search terms used in the NCNA frequency counts (Stage 1) are included in Appendix 2, “Search Terms Used in Stage 1 Frequency Counts.” The terms used in the Yoshikoder dictionary and concordance reports (stages 2 and 3) are described in Appendix 5, “Sample Types Used in Yoshikoder Dictionary and Concordance Reports.” Additional information relating to the use of wildcard characters, and coding/data entry errors are explained in Appendix 6, “Additional CCA Notes.”

Chapter III

CCA Results and Analysis

To recap, the goal of this paper is to establish the advantages of using a quantitative, data-driven research methodology to study modern Chinese history and foreign policy. To achieve this goal, I designed and carried out a three-stage CCA that examined a specific topic: Beijing's official views of Vietnam from the late 1970s to the early 1990s. Issues relating to China's policy toward Vietnam during this period have been subjected to a fair amount of research in the past 25 years. However, most of the existing research has been based on qualitative methodologies, which are difficult to duplicate, subject to researcher bias, and sometimes produce findings that are at odds with the conclusions of other researchers. Such is the case with a fundamental question relating to China's view of Vietnam in the 1980s: Whether Beijing was more concerned with Hanoi's alliance with Moscow (Robert Ross' thesis) or Vietnam's regional intentions (Charles McGregor's conclusion).

The results of the CCA described below not only provide convincing evidence that China was significantly more concerned with Vietnam's ambitions in the region during the 1980s, but also support — to a limited extent — McGregor's and Ross' shared finding regarding Chinese views of Vietnam in the late 1970s, which stated that Beijing at this time was chiefly concerned with the Hanoi/Moscow axis and the potential for Soviet encirclement. Additionally, the CCA charts a blossoming détente between China and Vietnam in the early 1990s, as China's official view of its southern neighbor turned

from a highly negative, Kampuchea-focused assessment, to a generally positive evaluation that had relatively few associations with Soviet Union/Russia and other countries in the region.

Results and Analysis: Late 1970s

When Deng Xiaoping was rehabilitated in 1977, the balance of power in Asia was undergoing a period of readjustment. The U.S. had withdrawn from Indochina and was about to reestablish official ties with the People's Republic of China. Beijing was reexamining its own foreign and domestic policies following the death of Mao and Zhou Enlai, and would shortly embark on a period of modernization, helped out by investment and knowledge transfer from overseas Chinese, Western countries, and Japan.

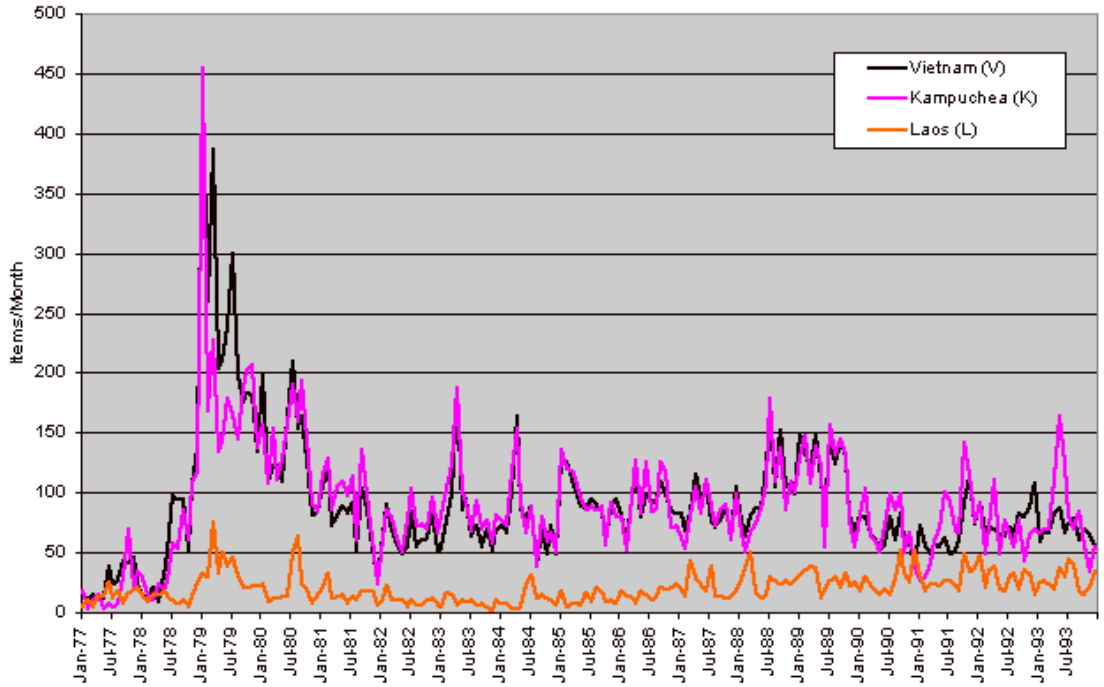
Despite these changes, the Cold War continued to dominate regional issues across Asia. A few situations — such as the standoff on the Korean peninsula — stretched back decades, with little change in the stances of the primary actors. Other disputes were in a state of flux. The U.S. exit from Indochina in 1975 had created new opportunities for the two Communist giants and rivals — China and the Soviet Union — to exert influence and make alliances in ways that benefited their own interests, often at the expense of the other player.

As described in Chapter I, Robert Ross and Charles McGregor independently concluded that China's views of Vietnam in the late 1970s were dominated by fears that a strengthening Hanoi-Moscow axis was part of a Soviet plan to encircle China. The data from the three-stage CCA indicated mixed levels of support for this conclusion. While the results of the NCNA frequency counts (Stage 1) show a strong correlation with the

Soviet-focused finding for two out of three years, the Yoshikoder dictionary reports (stage 2) and Yoshikoder concordance reports (Stage 3) results were limited by insufficient samples and ambiguous data.

The NCNA frequency count dataset was extensive, encompassing more than 100 pieces of data for every month between January 1977 and December 1993. Before analyzing the data relating to the Soviet Union, a helpful starting point for understanding China's official priorities in Indochina is a comparison of the raw counts of the articles that mentioned the three smaller countries in Indochina. Figure 1 demonstrates several trends, including higher levels of NCNA coverage for Vietnam and Kampuchea, and roughly parallel levels of coverage for Vietnam and Kampuchea, and spikes conforming to specific events and issues involving Vietnam, China, and Kampuchea.

Figure 1: Stage 1 - Monthly Vietnam, Kampuchea, Laos News Items, 1977-1993



One of the most striking aspects of the data in Figure 1 is the relatively low number of news items in the month-to-month Laos coverage, compared to NCNA's reporting on the two other countries. Laos rarely registered in NCNA coverage of Indochina, despite the fact that the country borders China and Vietnam. Seldom were there more than 50 news items relating to Laos in a given month, and, in the 1980s, the monthly news item count for Laos was often in the single digits. As Figure 2 shows, the monthly average and variance (expressed as standard deviation) for Laos news items were quite low when compared with the data for Vietnam and Kampuchea.

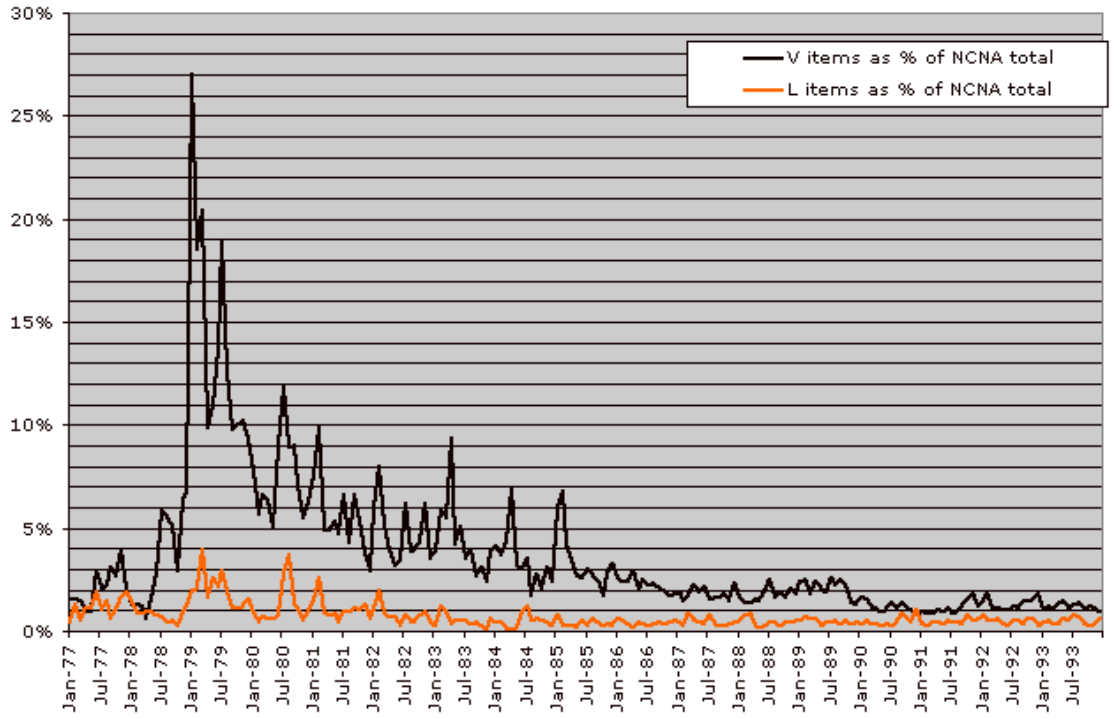
Figure 2: Stage 1 - Monthly Mean And Standard Deviation For Vietnam, Kampuchea, Laos, 1977-1993

	Mean	Standard Deviation
Vietnam	90.41	54.92
Kampuchea	89.72	49.69
Laos	19.93	12.01

Despite the limited Laos coverage during this period, Figure 1 also shows that the three countries started at about the same low levels in the first year of the study, 1977. During several months in that year, the number Vietnam and Kampuchea news items was actually slightly less than the number of Laos news items. By the end of the decade, however, the coverage levels had dramatically changed. The first spike of Vietnam news items is apparent in early 1979 — when China launched an invasion of Vietnam, following Vietnam's invasion of Kampuchea in the final weeks of 1978. In January 1979, there were 436 news items (27.01% of the NCNA total) that mentioned Vietnam in any context, compared to January 1978, in which just 13 news items (1.3% of the NCNA monthly total) related to Vietnam. The number of Vietnam news items remained high for the remaining months of 1979 relative to the rest of the period, averaging 14.08% of NCNA totals for the entire year, compared to the overall 1977-1993 mean of 3.59%.

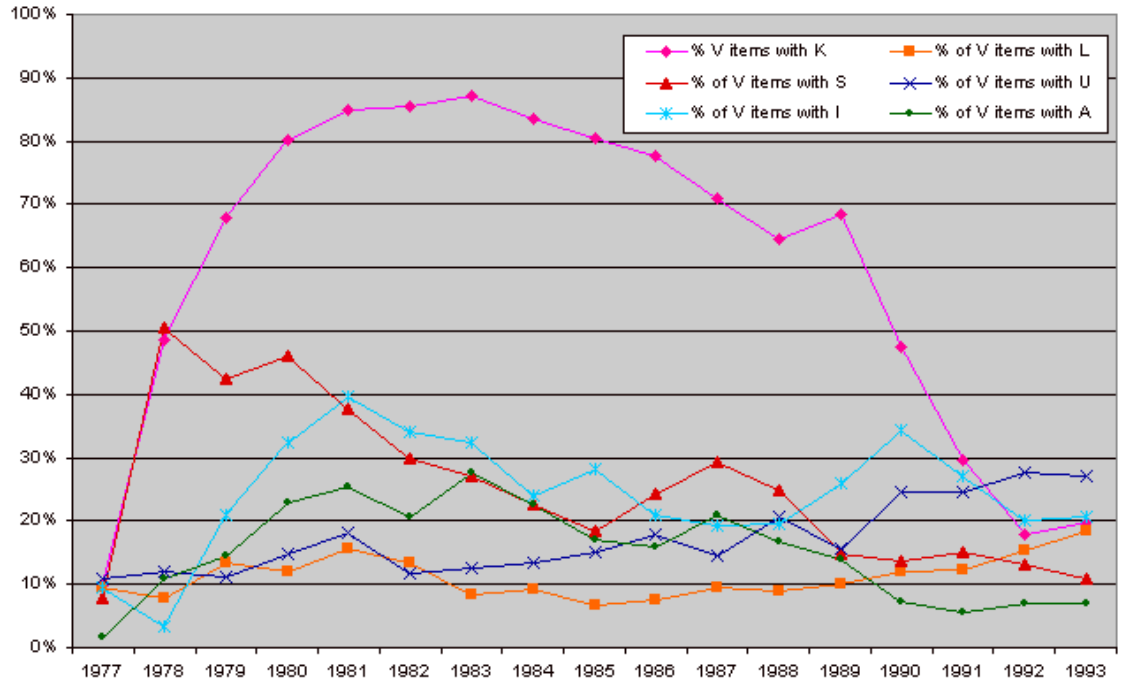
Figure 3 displays the relative frequency of Vietnam news items compared to Laos news items as a percentage of all NCNA news items for the entire period.

Figure 3: Stage 1 - Frequency of Vietnam Items and Laos Items, 1977-1993



NCNA news items mentioning Kampuchea also spiked sharply in January 1979. There were 455 Kampuchea items (28.19% of the NCNA monthly total), slightly more than the Vietnam levels for the same month. Overall, 11.38% of all NCNA items in 1979 were about Kampuchea. From the late 1970s until 1990, the number of Vietnam news items and Kampuchea news items followed a similar track, mainly because most Vietnam news items also mentioned Kampuchea, and vice versa (see figure 4).

Figure 4: Stage 1 - Vietnam+1 Other Country/Organization as a Proportion of All Vietnam Items, 1977-1993



Besides the sharp rise in the number of Vietnam news items from 1977 to 1979, there was also a sharp rise in the number of Vietnam news items that also mentioned the Soviet Union. At first, the NCNA did not connect issues involving Vietnam and the Soviet Union. Of the 306 Vietnam-related news items that were published in 1977, just 24 (7.84%) also mentioned the Soviet Union (see figure 4). This is less than the Vietnam/Laos total for 1977 (V+L=29, or 9.48% of all Vietnam news items) and the Vietnam/Kampuchea totals (V+K=30, or 9.8%), but greater than the other combination, Vietnam/ASEAN (V+A=5, or 1.63%). However, in 1978 the NCNA's Vietnam coverage began to be dominated by Soviet-related issues, as figure 4 demonstrates. Half of the NCNA Vietnam-related news items in 1978 also cited the Soviet Union (V=716, V+S=363). In 1979, the proportion of Vietnam/Soviet Union items dropped to just over 40% of the Vietnam total, but the overall number of Vietnam/Soviet Union news items

more than tripled (V+S=1,229) compared to the previous year. By comparison, the 1978 and 1979 levels for the more regionally focused news items — Vietnam/Laos and Vietnam/ASEAN —never topped 15% for either year.

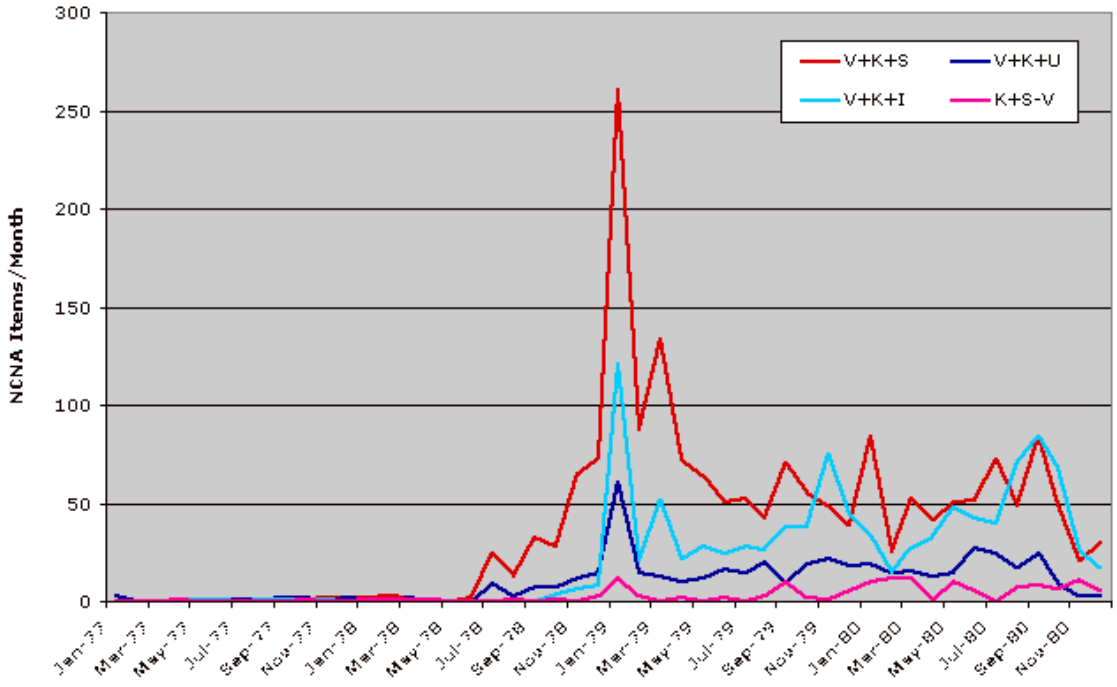
Another way of looking at the Vietnam/Soviet Union counts for 1978 and 1979 is to compare them with the number and proportion of Vietnam/Kampuchea news items. During these two years, the Vietnam/Kampuchea counts also rose sharply. However, the jump in Vietnam/Kampuchea coverage in the NCNA English news wire occurred in the context of major cross-border battles between the Vietnamese military and the PRC-supported Khmer Rouge, Vietnam's invasion of Kampuchea in late 1978, and the Vietnamese establishment of an occupation force and puppet government in Phnom Penh in 1979. The Soviet military was not officially engaged in combat in Vietnam or Kampuchea during this period, yet the level of Vietnam/Soviet Union news items was on a par with the NCNA's Vietnam/Kampuchea coverage.

Moreover, the NCNA — and, by extension, the leading nucleus of senior cadres in Beijing — gave the Soviet Union a high level of association with issues relating to Vietnam and Kampuchea starting in mid-1978 (see figure 5). The number of NCNA news items mentioning Vietnam, Kampuchea, and the Soviet Union rose from 2 in June 1978 to 24 in July 1978, and continued to climb throughout the remainder of the year. A visual inspection of the headlines during this period revealed a more critical shift in the tone of Soviet-related coverage, as these numbers began to rise. A few Vietnam/ Kampuchea/Soviet samples from July 1978, are listed here:

- `Japan's "Journalist' League Bulletin" Calls For Vigilance Against Soviet Intervention In Indo-China (Xinhua General News Service, July 13, 1978)
- Soviet Union Behind Indochina Fighting, Says U.S. Weekly (Xinhua General News Service, July 14, 1978)
- Viet Nam's Pursuance Of Regional Hegemony Exposed, (Xinhua General News Service, July 23, 1978)
- Indian Journals Charge Soviet Union Of Supporting Viet Nam's Anti-China Activities, (Xinhua General News Service, July 31, 1978)

The level of Vietnam/Kampuchea/Soviet items as a percentage of all Vietnam/Kampuchea items also rose sharply, peaking at 87.84% in November 1978, just before Vietnam's lightning invasion of Kampuchea the following month. In other words, most of the NCNA's coverage of issues relating to Vietnam and Kampuchea also had a Soviet connection — at least in China's view. The number of V+K+S items spiked at 260 in January of 1979 (when China launched a cross-border attack deep into Vietnam's northern provinces) before dropping off for the remainder of the year (see figure 5).

Figure 5:
Stage 1 - Kampuchea and Two Variables, 1977-1980



As I have just demonstrated, the NCNA frequency counts reflect China's preoccupation with the Soviet Union and Vietnam in 1978 and 1979, according to several different measures. However, the Yoshikoder-derived data (stages 2 and 3) did not clearly show the same level of concern for issues relating to the Soviet Union. Some of the Yoshikoder dictionary and concordance reports actually suggest slightly more concern over Vietnam's regional profile, even when the samples were isolated from direct references to the war in Kampuchea. Still, analysis of the Yoshikoder results must take into account the relatively limited amount of NCNA news items in the late 1970s that could be sampled and processed by the software.

Yoshikoder's dictionary report function gauged positive and negative tone of different types of NCNA news items by comparing the text of the yearly samples with three custom-built dictionaries consisting of positive, negative, and military terms

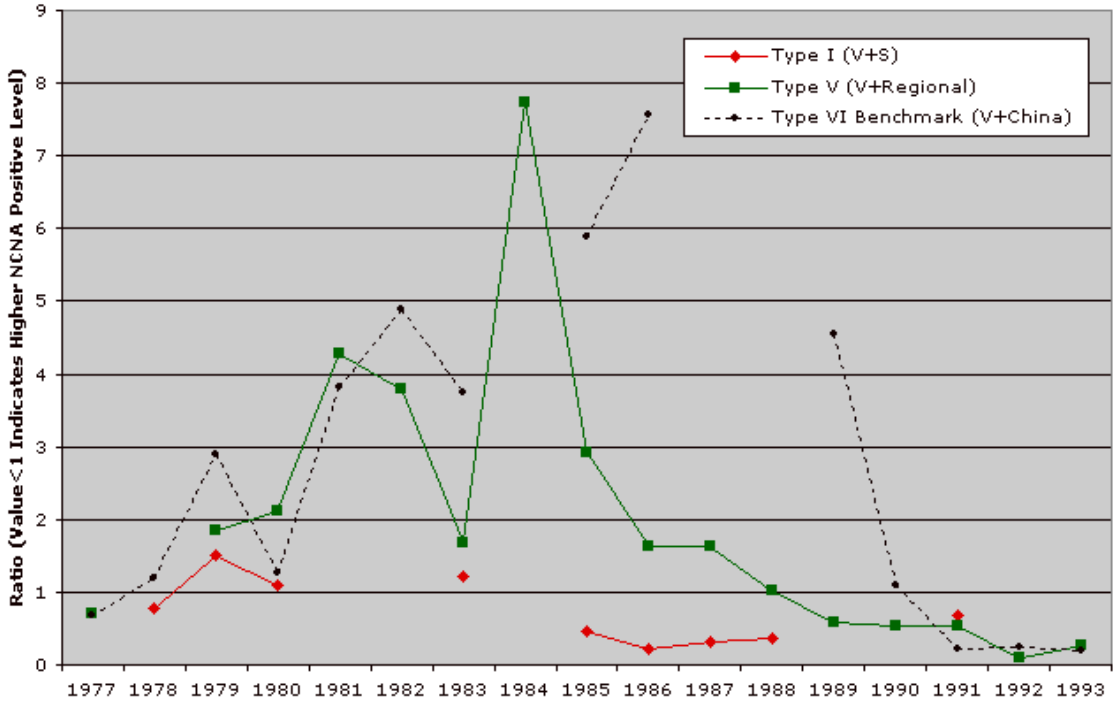
commonly appearing in NCNA content (see Appendix 4 for a list of terms). The output from the dictionary reports could be expressed in several ways: Raw counts of words in an annual sample corresponding to each dictionary; the percentage of words in an annual sample matching a specific dictionary; and the ratios of positive:negative terms (or negative:positive terms) in an annual sample. For example, the 1977 Type V sample contained the full text of 10 randomly chosen news items from that year. The news items, concatenated into a single text file, totaled 1,965 words. Most of the verbiage in this sample came from the bodies of the NCNA news items, but additional text came from the headlines, datelines, and some production data (article word counts, and the individual NCNA item numbers). Yoshikoder counted 81 words from this sample that matched terms in the NCNA negative dictionary, or 4.12% (i.e., 1,965÷81). Yoshikoder also found 115 words in the sample that matched the NCNA positive dictionary, or 5.85% of the total (i.e., 1,965÷115). The ratio of NCNA positive to negative terms in this sample is 1.42:1. The results described below will compare ratios by type and by year, although the reports based on the NCNA military dictionary will be expressed as a percentage of all words in an individual sample. These data provided a matrix to measure Beijing's tone toward different types of Vietnam-related issues — especially issues related to the Vietnamese/Soviet alliance, vs. those involving Vietnam's regional activities. These two broad categories can further be divided according to whether Kampuchea was cited in the headline, vs. those news items that contained no references to Kampuchea anywhere in the text.

Of the dictionary reports performed on the six sample types, those that concentrated on issues involving Vietnam and Kampuchea while excluding all other

countries and organizations (Type III) were more likely to include terms corresponding to death, destruction, and armed conflict. Two of the five remaining sample types were associated with Kampuchea as well: Type II (Vietnam, Kampuchea, and the Soviet Union/Russia mentioned in the headline) and Type VI (Vietnam, Kampuchea, and regional references in the headline). These two sample types tended to have high NCNA negative:positive ratios for years in which there were enough news items to create a viable sample. I will not describe the Type II or Type IV dictionary and concordance reports in detail, for two reasons: The inclusion of direct references to Kampuchea-related issues increased the negative tone of the samples, and for the Type II data, there were only three years in which there were enough news items to create valid samples for Yoshikoder analysis.

The three sample types that excluded direct references to Kampuchea were Type I (Vietnam+Soviet Union/Russia in the headline), Type V (Vietnam+Regional [not including Kampuchea] in the headline) and the Type VI benchmark (Vietnam+China in the headline). These three sample types provided very useful measurements for testing McGregor's and Ross' conclusions, as the news items that made up the samples were not dominated by negative Kampuchea war references. When the data from the Yoshikoder dictionary reports were expressed as a ratio of NCNA negative:NCNA positive references, the Vietnam/Regional sample topped the Vietnam/Soviet sample for every year until 1991 (see figure 6). Unfortunately, there was not much useful comparative data for the late 1970s. In 1979, the only year in which there was a valid sample for the Soviet-focused and regionally focused news items, the difference was slight — 1.85 for Type V, compared to 1.51 for Type I.

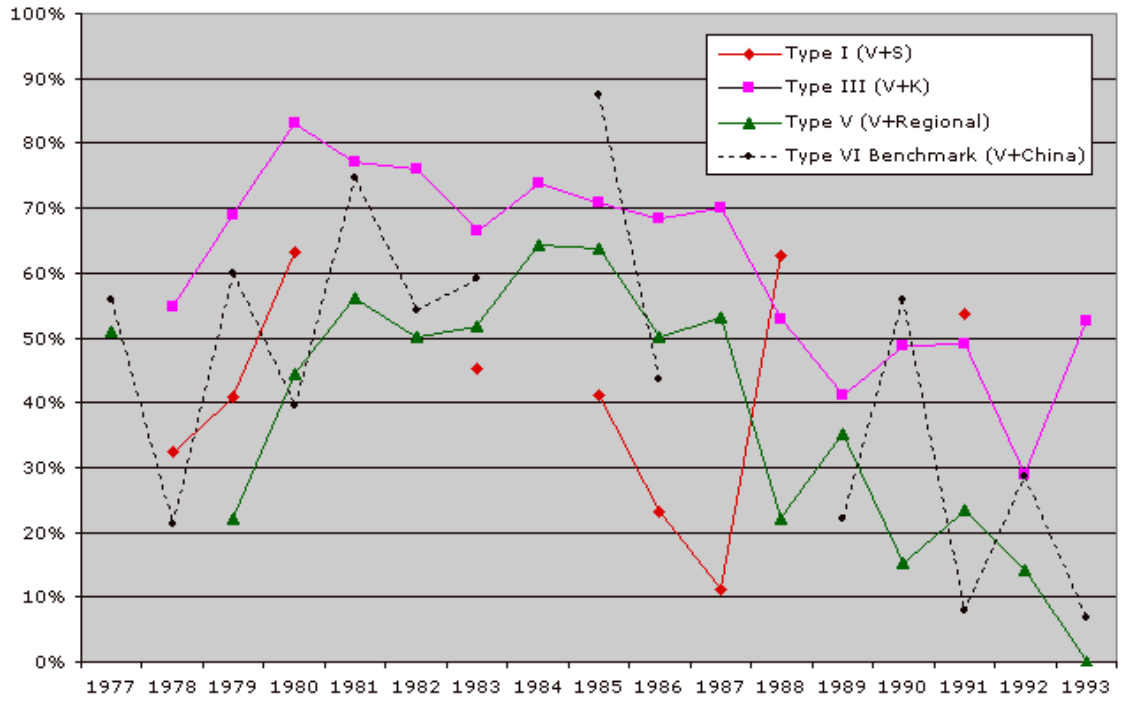
Figure 6: Stage 2 - Yoshikoder Dictionary Report -
NCNA Neg:Pos Ratios for Types I, V & VI, 1977-1993



The Yoshikoder dictionary reports based on the NCNA military dictionary provided additional measures of tone in NCNA coverage. The NCNA military dictionary is a subset of the NCNA negative dictionary, and consists of 75 terms that relate to military activity (see Appendix 4 for a complete list). It was used to gauge negative tone in NCNA coverage for the sample types that tracked Beijing's views of Vietnam's relationship with the Soviet Union (i.e., Type I) and views of Vietnam's regional intentions (Type V). Results for types III (Vietnam/Kampuchea in the headline) and the benchmark Type VI (Vietnam/China in the headline) were also generated, for comparison purposes. The results of the NCNA military dictionary reports were expressed as the proportion of references to NCNA negative terms. That is, if there were 206 matches to the NCNA negative dictionary in a certain sample, and 103 of these matches also corresponded to terms in the NCNA military dictionary, the proportion would be 50%.

The Type I samples started in 1978 (see figure 7). That year, 32.37% of all NCNA negative terms also appeared in the NCNA military dictionary. The proportion climbed to 40.97% in 1979. In 1977, about half of the NCNA negative terms in the Type V sample were NCNA military terms as well. There was a gap in the 1978 data, and in 1979 the proportion was 21.95%. In other words, for the only year in the late 1970s in which the NCNA military rates could be compared, the Soviet-focused sample (Type I) had nearly twice the proportion of military references when compared with the regional sample (Type V).

Figure 7: Stage 2 - Yoshikoder Dictionary Reports - NCNA Military Rates for Types I, III, V & VI, 1977-1993

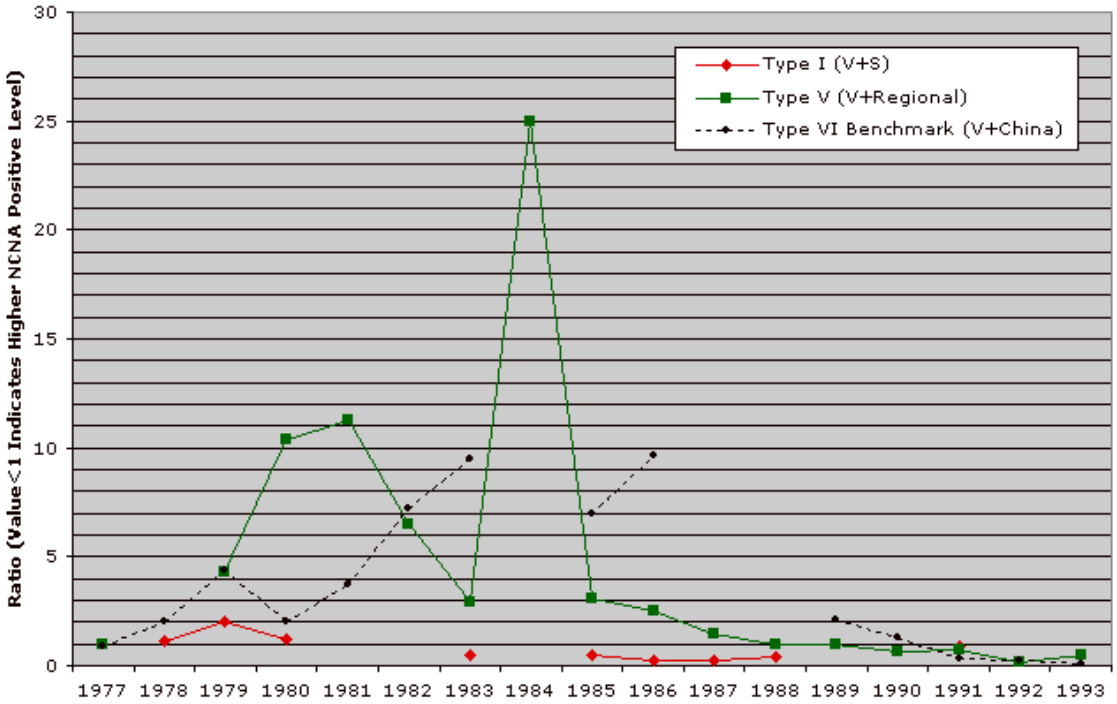


Yoshikoder concordance reports (Stage 3) used the same basic functions that were employed in the Yoshikoder dictionary reports, but the elements used in the analysis were not the entire yearly sample. Rather, they were ten-word blocks of text surrounding "Vietnam" (and related terms) in the samples. Dictionary reports based on these

concordances (which the Yoshikoder documentation calls "concordance reports") allowed analysis of the context surrounding references to Vietnam.[34]

When the Vietnam/Soviet (Type I) and Vietnam/regional (Type V) concordance report results were expressed as ratios of NCNA negative:NCNA positive references, the Type V values were higher for every year during the Deng era in which both types have data (see figure 8). The 1979 data showed concordances in the regional sample had a much higher ratio of negative terms, reaching 4.36:1 compared to 2.03:1 for the Soviet sample.

Figure 8: Stage 3 - Yoshikoder Concordance Report - NCNA Neg:Pos Ratios for Types I, V & VI, 1977-1993



To summarize the CCA results for the late 1970s, there was only one year — 1979 — in which there were enough news items to create Yoshikoder dictionary and

[34] I did not use the NCNA military dictionary within the concordance reports. The reason: The smaller amounts of text used in the concordance reports increased the probability of the relatively small NCNA military dictionary not having any matches within the sample, or creating skewed results based on just a handful of references.

concordance reports based on the Vietnam/Soviet (Type I) and Vietnam/Regional (Type V) samples. The dictionary reports based on the NCNA negative and positive dictionaries showed a marginally higher negative:positive ratio for the Vietnam/regional sample. The concordance report showed a significantly higher negative:positive ratio for the regional sample. The dictionary report based on the NCNA military dictionary reflected a significantly higher level of military references in the Vietnam/Soviet sample. Taken together, these data could be viewed as ambiguous, or showing mild support for the idea that Vietnam's regional ambitions were actually more troubling to Beijing than the Hanoi/Moscow alliance — a concept that defies the qualitative research of both McGregor and Ross.

However, the Yoshikoder data for 1977 and 1978 is incomplete. There is not enough information to compare the two samples types for those two years, and we cannot assume the results of the dictionary and concordance reports from 1979 also apply to the two earlier years. Moreover, the NCNA frequency counts (Stage 1) provide unambiguous support for McGregor and Ross in 1978 and 1979, clearly demonstrating Beijing's preoccupation with issues relating to Vietnam and the Soviet Union for most of the late 1970s. Based on the amount and consistency of the Stage 1 data, and the limitations of the stage 2 and 3 results, I have concluded that the CCA shows that Beijing was mildly more concerned with Hanoi's alliance with Moscow during the late 1970s.

Results and Analysis: 1980s

It is in the 1980s that we see a split in the qualitative research relating to China's views of Vietnam. Ross continued to maintain that China saw the Soviet Union and its

hegemonist plans in Vietnam as the chief threat (see pp. 13-14). McGregor shifted to a regionally focused thesis, determining that China was more concerned with Vietnamese expansionism in Southeast Asia (see pp. 14-15). According to my analysis, the data from all three stages of the CCA show clear support for McGregor's thesis, while rejecting Ross' finding. If Beijing actually saw the Soviet Union as driving Vietnamese expansionism in Southeast Asia, then this should have been reflected in a greater number of articles mentioning the Soviet-Vietnamese connection as well as in a more pronounced negative tone in the news items mentioning the Soviet Union and Vietnam. China has not been afraid to use its mouthpiece news agency to name the parties it feels is responsible for various international crises, yet consistently throughout the 1980s, the news agency treated the Soviet Union as only a peripheral actor in Kampuchea, and assigned an editorial tone that was only mildly critical of Soviet/Vietnamese issues (ranging from military cooperation to Vietnam's activities in Kampuchea) when compared with news about Vietnam that excluded mentions of the U.S.S.R.

The NCNA frequency counts (Stage 1) datasets reflect a veritable Chinese obsession with Vietnam's activities in Kampuchea throughout the 1980s. Although the single-country monthly counts of NCNA news items mentioning Vietnam, Kampuchea, and Laos showed a general downward trend for all three countries in the early 1980s, compared to the 1979 levels (see figure 1, p. 37), the counts for Vietnam and Kampuchea stayed within consistent ranges from the beginning of 1981 until the end of 1988, indicating an unwavering Chinese focus on issues involving the two countries.

The Stage 1 data also show an unusual cyclical spike in Vietnam news items and Kampuchea news items every April throughout the mid-1980s. The nature of the NCNA

news coverage during this month did not change; there were simply more news items relating to the two countries. It is possible that this cycle was somehow connected to Vietnam's military activities and/or the weather: McGregor notes that Hanoi frequently launched offensives in Kampuchea timed to take place in the dry season, which would have been wrapping up in March/April. China often reacted by increasing military actions along the Sino-Vietnamese border to force Hanoi to deploy additional Vietnamese forces there, thus preventing the Vietnamese troops from joining the offensives in Kampuchea.[35]

The surge of Vietnam news items and Kampuchea news items from June 1988 to October 1989 took place in the context of Kampuchean peace talks and the relatively quick withdrawal of Vietnamese troops from the country. The increased NCNA news coverage during this period reflects the intense interest Beijing had in these developments — forcing Vietnam to withdraw from Kampuchea had been China's goal since the late 1970s, not only to protect its Khmer Rouge allies, but also to limit suspected Vietnamese plans to become a dominant force and rival in Southeast Asia.

To gauge the importance China assigned issues that involved the Vietnamese/ Soviet relationship during the 1980s, and to contrast it with issues touching Vietnam and other countries and organizations, it is necessary to evaluate the frequency counts from this period that included references to Vietnam and one other country or organization. Figure 4 (see p. 40) shows Vietnam/Soviet issues declining in prominence throughout the early 1980s, eventually sinking to below 20% of all Vietnam-related items in 1985.

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[35] McGregor, 51. The annual April spike in NCNA coverage may have been the result of the state-run news agency reporting the additional news events associated with the dry season offensives and Sino-Vietnamese border clashes, and/or Beijing directing more English-language media coverage to put additional pressure on Vietnam in the international arena by highlighting more examples of unjust Vietnamese military actions.

During the same period, the number of Vietnam/Kampuchea news items soared above 80%. Other regionally focused combinations either bested or rivaled the Vietnam/Soviet totals during the first half of the decade. Vietnam/U.N. news items (V+I), which often promulgated China's views of U.N. activities relating to Vietnam's alleged misdeeds in Kampuchea and responsibility for the Boat People crisis, topped Vietnam/Soviet mentions from 1981 to 1985. Additionally, the Vietnam/ASEAN totals tied the Vietnam/Soviet totals from 1983 to 1985.

The Vietnam/Laos totals never came close to the Vietnam/Soviet totals during the entire decade. Nevertheless, considering the dominance of the Vietnam/Kampuchean combination among all Vietnam-related news, and the strong Vietnam/United Nations levels, it is apparent that the NCNA — and, by extension, the leading nucleus of senior cadres in Beijing — were more focused on issues relating to Vietnam's involvement in Kampuchea than issues relating to Hanoi's relationship with Moscow.

The 1986-1988 rise in the number of Vietnam/Soviet items overshadowed the Vietnam/United Nations and Vietnam/ASEAN combinations, and probably reflected Beijing's increased interest in a potential shift in Soviet priorities in Southeast Asia following Mikhail Gorbachev's rise to power in 1985. Nevertheless, the late 1980s Vietnam/Soviet peak of 30% in 1987 still was well below the Vietnam/Kampuchea level of 70% that year. In 1989 — the year Vietnam withdrew from Kampuchea — there was another shift in the frequency of NCNA coverage assigned to Vietnam and the other countries and international organizations. The proportion of news items mentioning Vietnam that also mentioned the Soviet Union dropped to just 15%, while the Vietnam/Kampuchea rate reached 68.4%, and the Vietnam/United Nations level jumped

to approximately 26%. Based on these figures, regional issues — especially those relating to Vietnam's activities in Kampuchea — clearly dominated Chinese views of Vietnam during the second half of the 1980s. Issues relating to the Hanoi/Moscow partnership, including Soviet military bases in Vietnam, as well as Soviet military and economic aid to Hanoi, did not receive the same level of attention or urgency, according to this measure of NCNA coverage.

The 1980s data derived from the Yoshikoder dictionary reports (stage 2 of the CCA) and Yoshikoder concordance reports (Stage 3) also back McGregor's qualitative findings, while contradicting Ross' conclusion. Unlike the Yoshikoder reports from the late 1970s, which were mixed in terms of the consistency and quality of data, the Yoshikoder reports for the 1980s were far more complete. There were more usable samples during this decade, and the results of the reports strongly point to regionally focused issues as being of greater concern to Beijing, rather than Soviet-focused issues.

As described on page 44 in this chapter, the Yoshikoder dictionary reports include NCNA negative:NCNA positive ratios by sample type and year, and the level of references to NCNA military terms, expressed as a proportion of the total number of NCNA negative terms appearing in each yearly sample. The results can be further parsed according to those samples that mention Kampuchea in the headline (types II, III, and IV) and those that do not mention Kampuchea anywhere in the headline or the text (types I and V, and the benchmark Type VI).

The reports based on Kampuchea news items will not be analyzed.[36] Of the remaining samples, the tone of Vietnam/Regional samples (Type V) was far more negative than the Vietnam/Soviet (Type I) samples during the 1980s, according to practically every metric generated by the Yoshikoder dictionary reports. The ratios of NCNA negative:NCNA positive rates display higher levels of negative tone for the Type V dictionary reports for every year in which there is data for both sets (see figure 6, p. 46). In fact, the Type I NCNA negative:NCNA positive ratios are about 1:1 in 1980 and 1983, and from 1985 to 1988 are less than 1:1, meaning that the Soviet-focused NCNA news items generally had a more positive tone.

The Yoshikoder dictionary reports also measured the number of terms appearing in the samples that matched the NCNA military dictionary (see figure 7, p. 47). For most of the 1980s, the Vietnam/Regional sample (Type V) had higher NCNA military rates, often much higher than the corresponding rates for the Vietnam/Soviet sample (Type I). However, the Type I military rates overshadowed the Type V rates in 1980 and 1988. Assuming that higher NCNA military rates are associated with larger perceived military threats, the 1980 and 1988 results suggest that China viewed the Soviet Union as a bigger source of worry in these two years. For 1980, this is not surprising. The nature of the trilateral relationship involving China, Vietnam, and the Soviet Union was still in flux at the beginning of the 1980s, owing to a series of recent and/or ongoing regional crises (Vietnam's invasion of Kampuchea, the Sino-Vietnamese border war, and the Soviet invasion of Afghanistan). In addition, the status of China's de facto leader, Deng Xiaoping, must also be taken into consideration. He had only recently firmed up his

[36] This is owing to the negative bias in Kampuchea-related reports (caused by higher proportions of war-related terms matching the NCNA negative dictionary) as well as a lack of Vietnam/Kampuchea/ Soviet news items (Type II). See page 45.

political control, pushing aside rivals including Mao's chosen successor, Hua Guofeng. China's foreign policy was a work in progress, and, according to McGregor, the Chinese government was only just starting to lower its suspicions of Moscow's geopolitical profile and relationship with Vietnam.[37]

The higher NCNA military rate for the Vietnam/Soviet (Type I) sample for 1988 has much to do with the limited size of the Type I sample. That year, there were only seven NCNA news items that fit the Type I search criteria, and all were included in the sample. Two of these news items were nearly identical dispatches issued on the 21st of December, "Vietnam Supports Soviet Peace Initiative," and a rewrite of the same article, "Vietnam's Delayed Support For Soviet Diplomatic Initiative." The second item repeated the news of Hanoi's reaction to proposed Soviet troop withdrawals in Europe in Asia, and repeated verbatim the numbers of soldiers, tanks, and other military forces involved. In other words, there were more matches with the NCNA military dictionary than otherwise would have occurred if the news item had not been rewritten. The small size of the Type I sample amplified the impact of this duplicate information on the NCNA military level for the 1988 Type I sample.

The results of the Yoshikoder concordance reports (Stage 3 of the CCA) reflected overwhelming negative sentiment and greatly reduced positive sentiment in the NCNA news items that mention Vietnam and other countries in Southeast Asia, excluding Kampuchea (Type V). That is, the words immediately surrounding references to "Vietnam" (and related terms) in news items about Vietnam and other Southeast Asian countries were more likely to be negative and less likely to be positive compared to references to "Vietnam" in NCNA news items about Vietnam and the Soviet Union

[37] McGregor, 62-64.

(Type I). The negative tone in the Type V results was particularly acute in the two samples from the early 1980s, while that for the Type I samples were quite low. When the concordance reports for the two sample types are compared in terms of the ratio of NCNA negative:NCNA positive references, the Type V values were higher for every year in the 1980s in which both types have data (see figure 8, p. 48). The Type I ratio for 1980 is just a little over 1:1, compared to more than 10:1 for the Type V sample. In 1983, 1985 to 1988, and 1991, the NCNA negative:positive ratio for Type I was below 1:1 — i.e., there were more terms matching the NCNA positive dictionary in these yearly samples.

The Yoshikoder results demonstrate relatively high levels of official Chinese criticism of those issues involving Vietnam and other countries in Southeast Asia (excluding Kampuchea) compared to those issues involving Vietnam and the Soviet Union throughout the 1980s. Conversely, the dictionary and concordance reports reflect a pronounced positive tone in the Vietnam/Soviet-focused news items during the same period. There was rapprochement in Sino-Soviet relations starting in 1982,[38] and relations between Beijing and Moscow were further helped by concessions made by Soviet General Secretary Mikhail Gorbachev in the mid-to-late 1980s.[39] Nevertheless, the high NCNA positive levels and low NCNA negative levels for Vietnam/Soviet samples also occurred during a period of Soviet military expansion in Vietnam[40] as well as an increase

[38] Wang Jisi, "International Relations Theory and the Study of Chinese Foreign Policy: A Chinese Perspective," in David Shambaugh and Thomas W. Robinson, eds., *Chinese Foreign Policy: Theory and Practice* (New York: Oxford University Press, 1994), 484.

[39] Harold Hinton, "China as an Asian Power," in David Shambaugh and Thomas W. Robinson, eds., *Chinese Foreign Policy: Theory and Practice* (New York: Oxford University Press, 1994), 369.

[40] The expansion included major naval and air facilities at Cam Ranh Bay. McGregor, 64.

in economic aid to Vietnam, which was announced in 1986.[41] If China saw this activity as threatening, why did not the tone of NCNA coverage reflect this?

Taken together, the results for all three stages of the CCA consistently back McGregor's qualitative determination that China was more concerned with Vietnam's regional plans than the threat of Soviet encirclement in the 1980s. The CCA also casts strong doubt upon the findings of Ross — and other observers — who have stated that China most feared a Soviet/Vietnamese alliance during this time.

Results and Analysis: 1990s

According to existing qualitative research, Beijing's views of Vietnam and its relations with other countries in Southeast Asia and the Soviet Union/Russia changed dramatically after 1989. McGregor's analysis is unavailable, but Ross determined that Beijing and Hanoi enjoyed a period of détente in the early 1990s.[42]

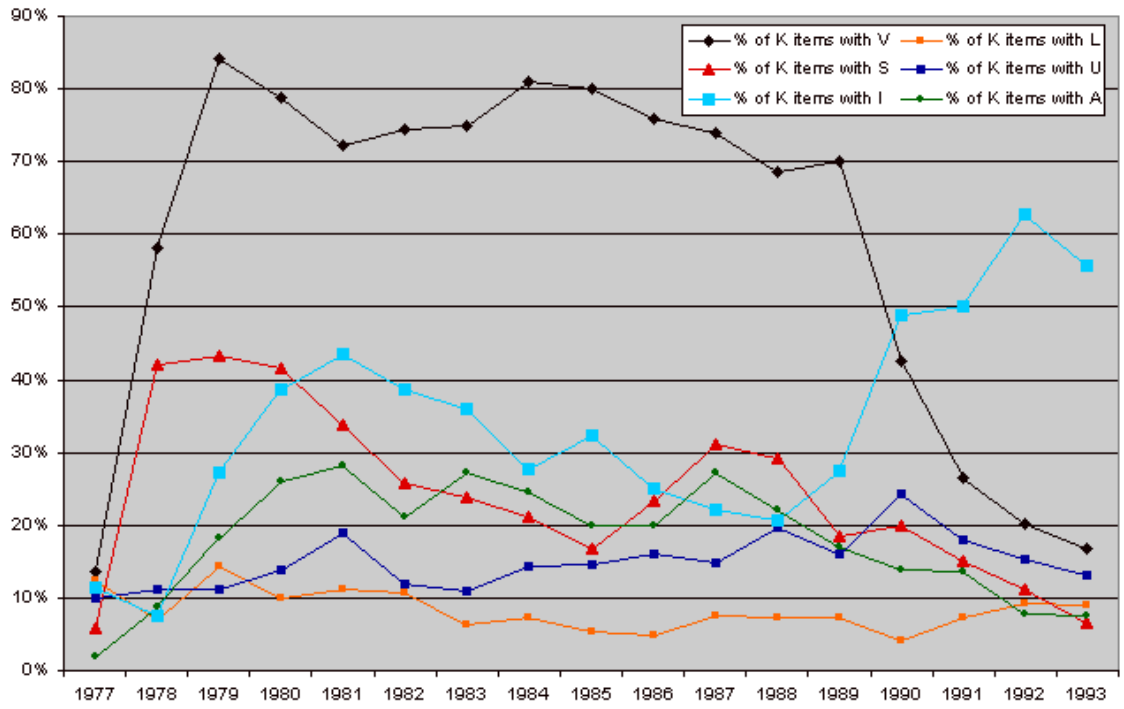
This observation is supported by all three stages of the CCA. NCNA frequency counts (Stage 1) indicate that most NCNA news items that mentioned Vietnam also mentioned Kampuchea in the 1980s, and vice versa. However, the pattern changed in the early 1990s. Not only did the number of Vietnam-related news items drop (see figure 1, p. 37) but also fewer of them mentioned Kampuchea (see figure 5, p. 43). By 1993, just one in five NCNA news items mentioning Vietnam also contained references to Kampuchea, on a par with the frequency of Vietnam/Laos references. Even as political turmoil and death continued to roil Kampuchea, China was clearly disassociating Vietnam from issues relating to Kampuchea, while increasingly emphasizing the United

[41] McGregor, 73.

[42] Ross, *Annals*, 52-55.

Nations in Kampuchea-related coverage (see figure 9). This reflected China's strong desire to see a political settlement in Kampuchea involving its Khmer Rouge allies and other factions following the Vietnamese withdrawal.[43]

Figure 9: Stage 1 - Kampuchea+1 Country/Organization As A Proportion of All Kampuchea Items, 1977-1993

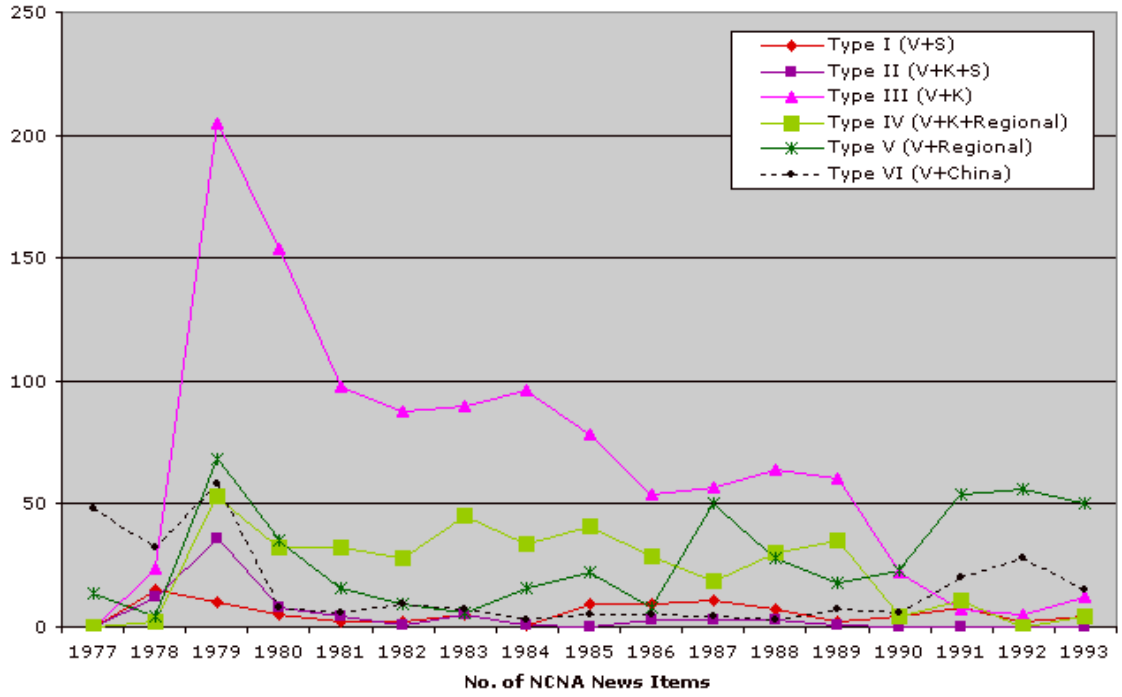


The results of the Yoshikoder dictionary and concordance reports for the early 1990s also support the idea of Sino-Vietnamese détente. The most convincing data comes from the results of the Yoshikoder dictionary reports for the benchmark Type VI (Vietnam and China mentioned in the headline) news items. Not only did the number of

[43] A peripheral development was Beijing's role of ASEAN during the early 1990s. In the NCNA frequency counts, the regional organization was barely mentioned in news items relating to Kampuchea during this period. In the last two years of the study, the Kampuchea/ASEAN rate was roughly 8%. The apparent sidelining of the regional organization in favor of the United Nations to broker peace in Kampuchea could reflect a desire on the part of Beijing to limit the influence of ASEAN or member countries in shaping the post-war government in Phnom Penh. Some other possibilities: China aimed to deal with countries in Southeast Asia on a one-to-one basis when discussing Kampuchea, either because it regarded ASEAN to be a threat to its own influence in Southeast Asia, or there were bilateral or trilateral factors involving China, Kampuchea, and various countries in Southeast Asia that Beijing felt required one-on-one meetings rather than group discussions.

Type VI items rise in the early 1990s when compared with most of the counts from the 1980s (see figure 10) but also the tone of the coverage shifted from highly negative to mostly positive.[44] These data reflect China's perception that relations were on the mend, and bilateral issues no longer needed to be portrayed in a negative light.

Figure 10: Annual NCNA Headline Totals By Sample Type For Yoshikoder Reports (Stages 2 and 3), 1977-1993



The Type V sample (Vietnam/regional country references in the headline, Kampuchea excluded) also exhibited a growing positive trend in the early 1990s. There was an abnormally high spike in the NCNA positive:negative ratio for 1992 (more than 10:1), resulting from exceptionally high numbers of positive terms and exceptionally low numbers of negative terms in the sample for that year.

For the remaining sample type, the number of Type I news items (V+S in the headline) was extremely low in the early 1990s, and there was only one year in which

[44] See Figure 6 (p. 46) and Figure 8 (p. 48), and figures 11 and 12 in Appendix 7

there were enough NCNA news items to create a viable sample and dictionary report: 1991. In that year, the NCNA positive:negative ratio was nearly 1.45:1, lower than the results from 1987 and 1988, which had been nearer to 3:1. In other words, the tone of the Type I sample was slightly more negative in 1991 than it had been in the mid-1980s, when the Soviet Union had operated a major naval base in Vietnam and carried out other military exchanges with Vietnam. However, in the mid-1980s there was an undeniable positive slant to Vietnam/Soviet coverage published by the NCNA, partially the result of the encouraging moves made by the USSR under Mikhail Gorbachev to improve relations with China. By 1991, Soviet military and economic aid to former Communist allies was being withdrawn, and the domestic situation in Russia and the former Soviet states was deteriorating. This news was creeping into the NCNA's Vietnam-related coverage:

> The Vietnamese government is paying close attention to the developments in the Soviet Union while Japanese prime minister Toshiki Kaifu has expressed serious concern about the Soviet situation, according to Xinhua reports from Hanoi and Tokyo. A spokesman of the Vietnamese Foreign Ministry said in Hanoi today that Vietnam "hopes the Soviet people will stand up to the test, overcome the difficulties and stabilize the situation as soon as possible so that their country could develop and play its role in the world."[45]

News items like this one impacted the dictionary reports, and resulted in the higher-than-expected negative tone in the 1991 sample.

NCNA military terms as a proportion of all NCNA negative terms declined from the mid-1980s to the early 1990s, with a few exceptions. The Vietnam/Soviet (Type I) military rate for 1991 was actually higher than it had been in the mid-1980s (see figure 7,

[45] "Vietnam, Japan Express Concern About Soviet Situation," Xinhua General News Service, August 20, 1991.

p. 47) but this is partially explained by the frequent references to Soviet troop reductions in the 1991 sample. The NCNA military dictionary report for the Vietnam/Kampuchea (Type III) sample was generally lower in the early 1990s than it had been for most of the 1980s, but there was still a slight uptick for 1993. This is explained by the reports of ethnic Vietnamese being victimized in Kampuchea that year, as well as the rumors of Vietnamese troops being spotted in the country. The military rates for the Vietnam/ Regional (Type V) sample, as well as the Type VI benchmark all trended sharply lower in the early 1990s, which support the idea that China was disassociating military issues and aggression from Vietnam's activities in the region.

The early 1990s Yoshikoder concordance reports (Stage 3 of the CCA) showed similar results to those from the Yoshikoder dictionary reports: generally higher NCNA positive rates and generally lower NCNA negative rates, which bolster Ross' stance that a state of détente had emerged. This is most apparent with the Vietnam/Kampuchea/ Regional (Type IV) sample, the Vietnam/Regional (Type V) sample, and the Vietnam/China benchmark (Type VI) sample — the concordance reports showed positive:negative ratios trending upwards, especially for the benchmark (see figure 11, Appendix 7).

Not every concordance report reflected such an upbeat assessment of China's views of Vietnam. While the 1991 Vietnam/Kampuchea (Type III) positive:negative ratio was 2.75:1 (a complete reversal from the Type III concordance data for 1988), by 1993 the Type III ratio had dropped back into negative territory — the result of a burst of NCNA reports on the plight of ethnic Vietnamese in Kampuchea.

Also contradicting the positive trend was the single concordance report for the Vietnam/Soviet (Type I) sample. The NCNA positive:negative ratio showed a decline from approximately 2:1 in 1988 to approximately 1:1 in 1991. This was partially the result of the somewhat positive Chinese assessments of Mikhail Gorbachev's initiatives in the mid-to-late 1980s, and a more bleak assessment of the situation in the USSR in 1991. However, it was impossible to gauge Chinese sentiment toward the Vietnam/Soviet relationship in 1990, 1992, and 1993 — there were simply no Vietnam/Soviet news items in the NCNA database to create samples with. The same was true with the Vietnam/ Kampuchea/Soviet (Type II) samples — the NCNA did not publish a single NCNA news item meeting the Type II search criteria from 1984 to 1993.

Still, these exceptions cannot dispel the overwhelmingly positive tone shown in the Yoshikoder dictionary and concordance reports for 1990 to 1993, when compared with the results for the previous decade. Moreover, the NCNA frequency counts demonstrate a marked shift in the types of issues that China associated with Vietnam in the early 1990s, following the Vietnamese withdrawal from Kampuchea and the ongoing downsizing of the Soviet/Russian footprint in Asia.

Conclusions and Recommendations for Future Research

This thesis has shown how a quantitative methodology based on Chinese media content can be used to provide a window of understanding into modern Chinese history and government policy. Using Deng-era Chinese policy views of Vietnam as an example, I have demonstrated how a multistage CCA can help resolve a lingering debate relating to a specific historical question, and have shown that a well-designed quantitative

methodology based on state-run media content can serve as a more precise gauge of Chinese policy views than traditional qualitative assessments.

However, I do not want to portray CCAs using Chinese media content as a panacea for all types of historical research. While content analyses can help us understand high-level issues and illustrate trends, it is inappropriate for answering more focused questions or exploring aspects of modern Chinese history for which documentation does not exist or is inaccessible. Sometimes quantitative methodologies can muddy the historical waters by generating results that are contradictory or ambiguous, as I discovered when comparing the data from the NCNA frequency counts from the 1970s with the data from the Yoshikoder reports for the same period.[46]

There are other problems with carrying out a successful computer-assisted content analysis. There is an old adage in the computer industry, "garbage in, garbage out." It refers to the fact that computers require precise instructions and quality data. If the instructions are not clear, or the data input into a system are somehow flawed, the post-processing output will also be flawed. Conducting a CCA therefore requires a great deal of planning, experimentation, and patience. There are numerous opportunities for failure, ranging from simple data-entry errors to the use of flawed lists of search terms. Misunderstandings about the contents of databases or the functions of software tools can lead to wasted time and frustration. There are also limitations with CCA sources or tools that simply cannot be overcome, as I found when I experimented with using "America" in LexisNexis searches.[47] It was also impossible to automatically create dictionaries of

[46] See p. 49.

[47] See p. 34.

positive and negative terms that are commonly used by the NCNA[48] —visual inspection was required, which conceivably opened up the study to the same type of researcher bias commonly seen in the qualitative literature.

Nevertheless, I firmly believe that well-designed quantitative methodologies have some distinct advantages over traditional ways of conducting historical research, and can add insight and precision that would otherwise be impossible using qualitative methodologies. There are encouraging signs that CCAs may some day be a regular staple of Chinese historical research. They are already becoming common in related fields, such as the study of Chinese government and Chinese media. In the past decade, students have become adept at using electronic tools to conduct research, and are potentially more open-minded about using software tools to systematically analyze media articles and other documents. There have been several initiatives, most notably the Google Books Search project, to import large amounts of printed text into searchable electronic databases. It stands to reason that such efforts will be extended to Chinese books and other publications.

Additionally, sophisticated CCA tools and methodologies are currently being developed. Recently, a group of researchers at the University of California at Irvine described explained the statistical and semantic foundation for "topic modeling," which can be used to automatically identify groups of related words and contextual trends in text documents.[49] Some of the researchers carried out a study that was able to identify

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[48] See pp. 25-26.

[49] Tom Griffiths and Mark Steyvers, "Probabilistic topic models," in T. Landauer, D McNamara, S. Dennis, and W. Kintsch (eds), *Latent Semantic Analysis: A Road to Meaning* (Laurence Erlbaum, in press).

hundreds of such topics in 330,000 articles from the *New York Times* and other newspapers in the space of a few hours.[50] This research, and the development of new software tools, will make it easier to analyze large amounts of digitized content and automatically flag trends, correlations, and anomalies in that content, thereby making it more convenient for researchers to test other qualitative and quantitative findings, and generate new research. Once these technologies are extended to China-area studies, there will be many opportunities for researchers to develop new lines of inquiry, and arrive at a more comprehensive understanding of modern Chinese history.

[50] "UCI researchers 'text mine' the New York Times, demonstrating evolution of potent new technology," (press release) Donald Bren School of Information and Computer Sciences, University of California at Irvine, July 26, 2006. Available from http://www.ics.uci.edu/community/news/press/view_press?id=51.

Appendix 1

Definition of Terms

"NCNA": The New China News Agency is the office state-run news agency of the People's Republic of China. In my thesis it is referred to by name, or by the abbreviation NCNA.

"NCNA English service": One of several foreign-language wire services of the NCNA External Department (Xinhuashe Duiwaibu), which is responsible for disseminating news abroad about developments in or relating to China. While some content is translated from the agency's domestic Chinese service, many dispatches are written by NCNA reporters in English, or gleaned from other sources, including Chinese newspapers, foreign newspapers, NCNA reporters stationed in the provinces, government press releases, memos from government ministries, NCNA correspondents stationed overseas, and Western wire services.

"NCNA news item": Any feature, commentary, report, dispatch, caption, brief, summary, or statement broadcast over the NCNA English Service. It is the sampling unit for my survey. Those items that directly reference any one of the seven countries or organizations listed below (V, K, L, S, U, I, A) are the recording units.

"Deng Xiaoping": A senior Chinese Communist Party official. Officially, he was never head of state or head of the CCP, but was China's de-facto leader. Political titles included member of the Standing Committee of the Political Bureau, chairman of the CCP's Central Military Commission, vice-chairman of the CCP, and vice premier.

"The Deng era": Establishing the start and end dates of Deng Xiaoping's leadership of China is difficult. His post-Mao leadership influence is regarded as starting with his post-Gang of Four rehabilitation by the Third Plenary Session of the Tenth Central Committee in July 1977 to Vice-Chairman of the Central Committee, Vice-Premier of the State Council, Vice-Chairman of the Military Commission and Chief of the General Staff of the People's Liberation Army.[51] He was dubbed "paramount leader" in 1978.[52] According to another source, the 3rd session of the Eleventh Central Committee in December 1978 is "commonly reported as the start of Deng's supreme and de facto leadership."[53] There is no consensus on the end date of his rule. He stepped down from his official state and party posts in the late 1980s and early 1990s, but had influence on state and party affairs until his death in 1997. For the purpose of this study, I will consider Deng's de-facto leadership role ending in March 1993. After 1992 Deng was in frail health, seldom seen in public, and presumably unable to actively manage the country's affairs, although he certainly had some degree of influence. Additionally, March 27, 1993, was the date Jiang Zemin, China's next paramount leader, was officially elevated to President of the People's Republic of China.

"Leading Nucleus": The high-level state and party officials, who, along with China's paramount leader, are responsible for making decisions about China's foreign affairs.[54]

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[51] "Key Figures: Deng Xiaoping." *China Daily*, updated June 25, 2004. Available from http://www.chinadaily.com.cn/english/doc/2004-06/25/content_342508.htm.

[52] John King Fairbank. *China: A New History* (Cambridge, MA: Belknap Press of Harvard University Press, 1992), 406.

[53] "Leaders of China (People's Republic of China)." Zárate's Political Collections (ZPC), Roberto Ortiz de Zárate, 1996-2003. Available from http://www.terra.es/personal2/monolith/china.htm.

[54] Lu, 41.

"Vietnam": A country in Southeast Asia.

"V": The country identified by of any one of four terms in any NCNA news item corresponding to Vietnam or issues related to Vietnam. Any NCNA news item with this term will be counted as 1 V item.

"Vietnam War": The civil war between Communist North Vietnam and Democratic South Vietnam in the 1960s and 1970s, that ended with a Communist victory in 1975.

"Kampuchea": A country in Southeast Asia.

"K": The country identified by any one of nine terms in any NCNA news item corresponding to Kampuchea or issues related to Kampuchea. Any NCNA news item with this term will be counted as 1 K item.

"Laos": A country in Southeast Asia.

"L": The country identified by any one of three terms in any NCNA news items corresponding to Laos or issues related to Laos. L search terms are "Laos" or "Laotian" or "Vientiane," but during L searches, an additional six terms are excluded to screen out NCNA news items that mention Chinese writer Lao She and Chinese philosopher Lao Zi. Any NCNA news item with this term will be counted as 1 L item.

"Soviet Union": Officially known as the Union of Soviet Socialist Republics, The former Communist superpower consisting of Russia and 14 other Soviet Socialist Republics in Europe and Asia. Dissolved December 1991.

"Russia": The country officially known as the Russian Federation, which inherited the mantle of Soviet power following the official demise of the USSR in 1991.

"S": The country identified by any one of 12 terms in any NCNA news item corresponding to the Soviet Union or Russia or any Soviet Union or Russia-related issues. Any NCNA news item with this term will be counted as 1 S item in the survey.

"United States": The country officially known as the United States of America.

"U": The country identified by any one of eight terms in any NCNA news item corresponding to the United States or U.S.-related issues. Any NCNA news item with this term will be counted as 1 U item in the survey. "America," "American," and "U.S." are not included in U search terms (see chapter 2, section D, "Research limitations").

"United Nations": The international body that aims to provide a forum for diplomatic discourse and action based on international law.

"I": The organization identified by any one of 16 terms in any NCNA news item corresponding to the United Nations or any U.N.-related agency or issue. Any NCNA news item with this term will be counted as 1 I item.

"Association of Southeast Asian Nations": The international organization established to provide a forum for Southeast Asian nations to promote economic development, security, and social progress.

"A": The organization identified by either of two terms in any NCNA news item corresponding to the Association of Southeast Asian Nations or ASEAN-related issues. Any NCNA news item with this term will be counted as 1 A item.

Appendix 2

Search Terms Used in Stage 1 Frequency Counts

All searches were performed using the LexisNexis Academic online search form, and were based on archived NCNA news items from 1977 to 1993. The numbers below correspond to the three search fields in the LexisNexis search form, and the conditions used to restrict the results (e.g., full text vs. headline only). "NOT" was used to exclude news items containing certain terms.

Vietnam (V)

Search terms and exclusions:

1. Full text

vietnamese or vietnam or "viet nam" or Hanoi

Kampuchea (K)

1. Full text

kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or "Hun Sen" or "Heng Samrin"

Laos (L)

1. Full text

Laos or Laotian or Vientiane

2. NOT full text

literary or literature or playwright or theat! or "lao zi" or "lao tzu"

USSR/Russia (S)

1. Full text

moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin

United States (U)

1. Full text

"United States" or USA or Washington or "White House" or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton)

United Nations (I)

1. Full text

"United Nations" or UN or UNICEF or UNTAC or WFP or "World Food Progra!" or "World Health Org!" or UNCTAD or "International Monetary Fund" or IMF or "World Bank" or "International Court of Justice" or UNHCR or (secretary general w/4 cuellar) or (secretary general w/4 waldheim) or (secretary general w/4 boutros)

Association of Southeast Asian Nations (A)

1. Full text

ASEAN or "Association of Southeast Asian Nations"

Appendix 3

Individual Country/Organization Lists and Combinations of Lists
Used in Stage 1 Frequency Counts

Key:

V = Terms relating to Vietnam
K = Terms relating to Kampuchea
L = Terms relating to Laos
A = Terms relating to ASEAN
S = Terms relating to Soviet Union
U = Terms relating to the United States
I = Terms relating to the United Nations

Vietnam	Kampuchea	Laos
V	K	L
% of NCNA total	% of NCNA total	% of NCNA total
		Ratio of V to L items
V+K	K-V	
	% of K items with V	L-V
V-K	% of K items without V	% of L items with V
% V items with K		% of L items without V
% V items without K	K+L	
		% of L items with K
Ratio V:K items	K-L	% of L items without K
	% of K items with L	
V+L	% of K items without L	L+S
V-L	K+S	L-S
% of V items with L		% of L items with S
% of V items without L	K-S	% of L items without S
	% of K items with S	
Ratio V:L items	% of K items without S	L+U
Ratio V+K:V+L items	K+U	L-U
		% of L items with U
V+S	K-U	% of L items without U
	% of K items with U	
V-S	% of K items without U	Ratio of L+S:L+U
% of V items with S		
% of V items without S	K+I	L+I

V+U V-U % of V items with U % of V items without U Ratio V+S:V+U items V+I V-I % of V items with I % of V items without I V+A V-A % of V items with A % of V items without A Ratio V+I:V+A items V+K+S V+K-S % of V+K items with S % of V+K items without S V+S-K % V+S items with K % V+S items without K V+K+U V+K-U %of V+K items with U % of V+K items without U Ratio V+K+S:V+K+U items V+K+I V+K-I % of V+K items with I % of V+K items without I	K-I % of K items with I % of K items without I K+A K-A % of K items with A % of K items without A K+S-V % of K items with S and V % of K items with S but not V Ratio S+V-K:S+K-V	L-I % of L items with I % of L items without I L+A L-A % of L items with A % of L items without A

V+K+A V+K-A % of V+K items with A % of V+K items without A Ratio V+K+I:V+K+A items		

Appendix 4

NCNA Positive, Negative, and Military Dictionaries
(Yoshikoder Dictionary and Concordance Reports)

The terms in these dictionaries were by sampling 21 news items published by the NCNA at regular intervals between 1977 and 1993, and combining them into a single text file. Using Yoshikoder's word count function, this sample was parsed into a long list of constituent words; those which were deemed to be negative or positive were copied into two separate text files which became the NCNA negative and positive dictionaries. Further, a subset of the NCNA negative dictionary was created, consisting of military-related terms selected by the author.

Asterisks (*) are wildcard characters — any word whose text matches the text before the asterisk will be counted in Yoshikoder dictionary and concordance reports.

NCNA Positive	NCNA Negative	NCNA Military
accept*	abandon*	aggress*
accord*	abet*	aircraft
achiev*	absorb*	ambush*
advance	abyss	arm*
advantag*	accus*	artillery
agree*	aggress*	assault*
aid*	aircraft	attack*
alliance*	ambush*	bases
allie*	angri*	battal*
anti-aggress*	anti-china	battl*
anti-hegemon*	anxiet*	bayonet*
anti-kampuc*	anxious*	beat*
approp*	arm*	bombard*
attain*	artillery	brigade*
attention*	assault*	bullet*
behav*	attack*	burn*
best	attempt*	campaign*
better	avoid*	captur*
bilateral	awful	chase*
buil*	bad	clash*
capab*	bases	colonel
ceasefire*	battal*	conflict*
cessat*	battl*	counterattack
cherish*	bayonet*	counter-attack

combin*	beat*	defeat*
commit*	bellicose	defen*
commodit*	betray*	destroy*
communit*	blow	destruct*
connect*	blows	detachment*
construct*	boat*	division*
cooperat*	bombard*	enem*
cordial	brazen*	fight*
correct*	break*	fired
cultivat*	brigade*	firing
demob*	broke*	fought
desire*	bullet*	front*
develop*	burn*	guard*
dollar*	bypass*	gun*
ease*	campaign*	head-on
easing	cannot	hit*
econom*	captur*	hostil*
embark*	caution*	incursion*
endeav*	challeng*	invad*
ensur*	chao*	invas*
enthusiast*	chase*	kill*
exchang*	clamor*	manoeuv*
expand*	clamour*	massac*
facilitat*	clash*	massed
favor*	clique*	maul*
favour*	close*	milita*
festiv*	closure*	militia*
financ*	colonel	mobili*
flawless*	compel*	mortar*
free*	concede*	mount*
fresh*	concern*	offens*
friend*	condemn*	operation*
good	conflict*	platoon*
good-neighbo*	confront*	puniti*
goodwill	consequenc*	raid*
grant*	contain*	regiment*
happ*	corner*	reinfor*
help	counter	securityman
helped	counterattack	securitymen
helps	counter-attack	self-defen*
honor*	crie*	sentr*
humanitar*	criminal*	servicemen
impartial*	crisis	shell*
improv*	critic*	shot*
increas*	cross*	sink*
independ*	crumbl*	spearh*

industr*	cry*	sunk
initiat*	damag*	troop*
innocen*	danger*	vessel*
integrit*	dare*	war*
iron-clad	dealt	wound*
join*	deceiv*	
justi*	decept*	
lead*	defeat*	
liberat*	defen*	
liveliness	delud*	
moral*	demand*	
neighb*	denie*	
normal	denounc*	
normali*	deny	
offer*	deploy*	
olymp*	destroy*	
open*	destruct*	
opport*	detachment*	
pass*	dictator*	
peace*	difference*	
permi*	difficult*	
positiv*	discrimina*	
potent*	disput*	
present*	disrupt*	
prime	divert*	
produc*	division*	
progress*	domina*	
promot*	doubt*	
protect*	driven	
provid*	eking	
reach*	encroach*	
rebuild*	endanger*	
receiv*	enem*	
recover*	escalat*	
renounc*	evacuat*	
reopen*	evad*	
rescue*	evil*	
respite*	excuse*	
restor*	exert*	
restrain*	exhaust*	
retain*	exit*	
return*	expand*	
right*	expans*	
safe*	expos*	
safeguard*	fabricat*	
salvation	faction*	

sanitar*	fail*	
sav*	fierce*	
secur*	fight*	
self-determ*	fired	
settl*	firing	
signed	force*	
signing*	fought	
sincer*	fracture*	
solidarit*	front*	
solv*	futil*	
sooth*	ganged	
stabil*	grossly	
stabl*	groundlessly	
strong	guard*	
suitab*	gun*	
supplies	hamper*	
supply	harrass*	
support*	head-on	
sure	hegemon*	
sustain*	hit*	
sympath*	hostil*	
together	huddl*	
tolerate*	hypocrit*	
tranquil*	ignor*	
true	illegal*	
truly	imperial*	
truth*	impunity	
unbrok*	incess*	
understand*	incident*	
unite*	incursion*	
upturn*	infring*	
valid*	intens*	
value*	interven*	
visit*	intrud*	
welcom*	invad*	
willing*	invas*	
win*	irrita*	
withdraw*	kidnap*	
	kill*	
	launch*	
	leav*	
	lesson*	
	lie*	
	limit*	
	loot*	
	lorded	

	los* loss* manoeuv* mass massac* massed maul* meag* menac* milita* militia* miscalculate* miserable mislead* mobili* mortar* mount* never nothing obstruct* occup* offens* operation* oppos* part* pawn* persec* platoon* plund* police* posed power pressur* pretext* problem* propag* propog* provoc* provok* punish* puniti* raid* reactionar* reckless* reconn* refus*	

	regiment* reinfor* resist* ridicul* rival* rob robbed robs runaway* sabot* sank savag* scar scars securityman securitymen seiz* self-defen* sentr* servicemen shallow* shell* shirk* shock* shortag* shot* sink* skyrock* slander* smokescreen* sneak* so-called social-imperialism spearh* spies spy spying stagnat* stern* stop* strand* strict* strip* struggl* suffer* sunk	

	superpower* surveil* suspect* suspic* swollen tension* thorn* threadbar* threat* throat* thrown thug* traged* tragic trampl* trick* troop* troublemak* turbul* twist* uncomfort* undermin* unsolv* vain* vanity* vessel* victim* violat* wanton* war* waste* whip* woe* worse worse* worst wound* wretch*	

Appendix 5

Sample Types Used in Yoshikoder Dictionary and Concordance Reports

All searches were performed using the LexisNexis Academic online search form, and were based on archived NCNA news items from 1977 to 1993. The numbers below correspond to the three search fields in the LexisNexis search form, and the conditions used to restrict the results (e.g., full text vs. headline only). "NOT" was used to exclude news items containing certain terms.

Type I

Description:

Vietnam, the Soviet Union and associated terms are used in the headline, but those terms relating to Kampuchea, the United States, and other Southeast Asian countries are not mentioned in the full text. Abbreviated as "V+S" in figures corresponding to Yoshikoder report data.

Search terms and exclusions:

1. headline only

vietnamese or vietnam or "viet nam" or Hanoi

2. AND headline only

moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin

3. NOT full text

laos or laotian or vientiane or kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or "Hun Sen" or "Heng Samrin" or thai or thailand or siam or bangkok or bhumibol or burma or burmese or myanmar or rangoon or yangon or malaysia or malaysian or kuala lumpur or mahatir or singapore or singaporean or philippines or phillipines or quezon or manila or filipino or filipina or indonesia or indonesian or jakarta or djakarta or suharto or brunei or papua new guinea or port moresby or asean or "Association of Southeast Asian Nations" or "United States" or USA or Washington or "White House" or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton)

Type II

Description:

Vietnam, the Soviet Union and Kampuchea and associated terms are used in the headline, but those terms relating to the United States and other Southeast Asian countries are not mentioned in the full text. Abbreviated as "V+K+S" in figures corresponding to Yoshikoder report data.

Search terms and exclusions:

1. headline only

(vietnamese or vietnam or "viet nam" or Hanoi) and (moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin)

2. AND headline only

kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or "Hun Sen" or "Heng Samrin"

3. NOT full text

laos or laotian or vientiane or thai or thailand or siam or bangkok or bhumibol or burma or burmese or myanmar or rangoon or yangon or malaysia or malaysian or kuala lumpur or mahatir or singapore or singaporean or philippines or phillipines or quezon or manila or filipino or filipina or indonesia or indonesian or jakarta or djakarta or suharto or brunei or papua new guinea or port moresby or asean or "Association of Southeast Asian Nations" or "United States" or USA or Washington or "White House" or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton)

Type III

Description:

Vietnam, Kampuchea and associated terms are used in the headline, but those terms relating to the Soviet Union, the United States, and other Southeast Asian countries are not mentioned in the full text. Abbreviated as "V+K" in figures corresponding to Yoshikoder report data.

Search terms and exclusions:

1. headline only

vietnamese or vietnam or “viet nam” or Hanoi

2. AND headline only

kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or “Hun Sen” or “Heng Samrin”

3. NOT full text

laos or laotian or vientiane or thai or thailand or siam or bangkok or bhumibol or burma or burmese or myanmar or rangoon or yangon or malaysia or malaysian or kuala lumpur or mahatir or singapore or singaporean or philippines or phillipines or quezon or manila or filipino or filipina or indonesia or indonesian or jakarta or djakarta or suharto or brunei or papua new guinea or port moresby or asean or “Association of Southeast Asian Nations” or “United States” or USA or Washington or “White House” or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton) or moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin

Type IV

Description:

Vietnam, Kampuchea and other Southeast Asian countries and associated terms are used in the headline, but those terms relating to the Soviet Union and the United States are not mentioned in the full text. Abbreviated as “V+K+Regional” in figures corresponding to Yoshikoder report data.

Search terms and exclusions:

1. headline only

(vietnamese or vietnam or “viet nam” or Hanoi) and (kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or “Hun Sen” or “Heng Samrin”)

2. AND headline only

laos or laotian or vientiane or thai or thailand or siam or bangkok or bhumibol or burma or burmese or myanmar or rangoon or yangon or malaysia or malaysian or kuala lumpur or mahatir or singapore or singaporean or philippines or phillipines or quezon or manila or filipino or filipina or indonesia or indonesian or jakarta or djakarta or suharto or brunei

or papua new guinea or port moresby or asean or “Association of Southeast Asian Nations"

3. NOT full text

moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin or “United States” or USA or Washington or “White House” or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton)

Type V

Description:

Vietnam, other Southeast Asian countries and associated terms are used in the headline, but those terms relating to the Soviet Union, Kampuchea, and the United States are not mentioned in the full text. Abbreviated as “V+Regional” in figures corresponding to Yoshikoder report data.

Search terms and exclusions:

1. headline only

vietnamese or vietnam or “viet nam” or Hanoi

2. AND headline only

laos or laotian or vientiane or thai or thailand or siam or bangkok or bhumibol or burma or burmese or myanmar or rangoon or yangon or malaysia or malaysian or kuala lumpur or mahatir or singapore or singaporean or philippines or phillipines or quezon or manila or filipino or filipina or indonesia or indonesian or jakarta or djakarta or suharto or brunei or papua new guinea or port moresby or asean or “Association of Southeast Asian Nations"

3. NOT full text

kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or “Hun Sen” or “Heng Samrin” or moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin or “United States” or USA or Washington or “White House” or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton)

Type VI

Description:

Vietnam and China are used in the headline, but those terms relating to Kampuchea, Laos, the Soviet Union, the United States, the United Nations, and the Association of Southeast Asian Nations are excluded from the full text. Abbreviated as "V+China" in figures corresponding to Yoshikoder report data.

Search terms and exclusions:

1. headline only

vietnamese or vietnam or "viet nam" or Hanoi

2. AND headline only

China or "Peoples Republic" or Beijing

3. NOT full text

laos or laotian or vientiane or kampuchea or kampuchean or cambodia or cambodian or phnom or sihanouk or khmer or "Hun Sen" or "Heng Samrin" or thai or thailand or siam or bangkok or bhumibol or burma or burmese or myanmar or rangoon or yangon or malaysia or malaysian or kuala lumpur or mahatir or singapore or singaporean or philippines or phillipines or quezon or manila or filipino or filipina or indonesia or indonesian or jakarta or djakarta or suharto or brunei or papua new guinea or port moresby or asean or "Association of Southeast Asian Nations" or "United States" or USA or Washington or "White House" or (Presiden! w/2 Carter) or (Presiden! w/2 Reagan) or (Presiden! w/3 Bush) or (Presiden! w/2 Clinton) or moscow or ussr or russian or russia or soviet or kremlin or Brezhnev or Andropov or Chernenko or Gorbachev or Yeltsin or Putin or "United Nations" or UN or UNICEF or UNTAC or WFP or "World Food Progra!" or "World Health Org!" or UNCTAD or "International Monetary Fund" or IMF or "World Bank" or "International Court of Justice" or UNHCR or (secretary general w/4 cuellar) or (secretary general w/4 waldheim) or (secretary general w/4 boutros)

Appendix 6

Additional CCA Notes

Use of Wildcard Characters in LexisNexis Searches

The searches performed on the archive of NCNA news items stored in the LexisNexis online database had to be carefully structured in order to obtain the desired results. When searching LexisNexis for news items that included references to certain countries, wildcard characters or a list of excluded terms were added to the search fields to eliminate news items that had nothing to do with those countries. An example is the list of terms pertaining to Laos:

laos or laotian or vientiane

AND NOT literary or literature or playwright or theat! or “lao zi” or “lao tzu”

The reason for the excluded terms relates to the way LexisNexis handled words ending in “s.” The LexisNexis search engine sees all such terms as plural regardless of whether it is a plural form, and treats them as singular words. Searches for “Laos” (the country) also returned news items that mentioned the Daoist philosopher Lao Zi as well as Lao She, the Republican-era author and playwright whose work enjoyed a small revival in China in the late 1970s and early1980s. Because Lao She’s given name is also the same spelling as the pronoun “she,” a collection of terms related to his profession (and unlikely to appear in NCNA news items about Laos) was used instead. It includes “theat!”, the exclamation point serving as a wildcard character to capture all words that start with “theat” — such as the British and American spellings of “theater” and “theatrical.”

For terms relating to the United States, there were a host of problems that could not be overcome by exclusions and wildcard characters. These problems and the impact on the datasets are explained on pages 33 and 34.

Manual Processes and Coding/Data Entry Errors

While this CCA depended on two sophisticated software programs — Microsoft Excel and Yoshikoder — as well as the massive historical database of NCNA news items maintained by the LexisNexis Academic service, transfer of data between these applications was not automated — it depended upon manual processes that are unfortunately prone to human error.

In the NCNA frequency counts (Stage 1) the results of approximately 5,000 searches on the LexisNexis Academic website had to be pasted or manually keyed into the master Excel document. In certain situations, entering the wrong monthly value into Excel triggered an error in one of the mathematical formulas used to calculate derivative values, percentages or ratios, which was easily detectable and quickly corrected. At other times, datasets showing unusual spikes or value changes from month to month or year to year would prompt a recheck. But redoing all of the searches would have taken too much time. Therefore, it must be assumed that a handful of the 5,000 searches were incorrectly entered into the spreadsheet and not detected.

For the Yoshikoder dictionary and concordance reports (stages 2 and 3), there was also a chance for data entry errors to impact the creation of the NCNA positive, negative and military dictionaries, as well as the samples used in the dictionary and concordance reports. All were built by pasting NCNA news items from LexisNexis Academic into text files. Furthermore, the results of the reports had to be copied and pasted between separate Excel documents, which created more opportunities for human error.

Appendix 7

Additional Figures

Figure 11: Stage 2 - Yoshikoder Dictionary Report -
NCNA Positive:Negative Ratios by Type, 1977-1993

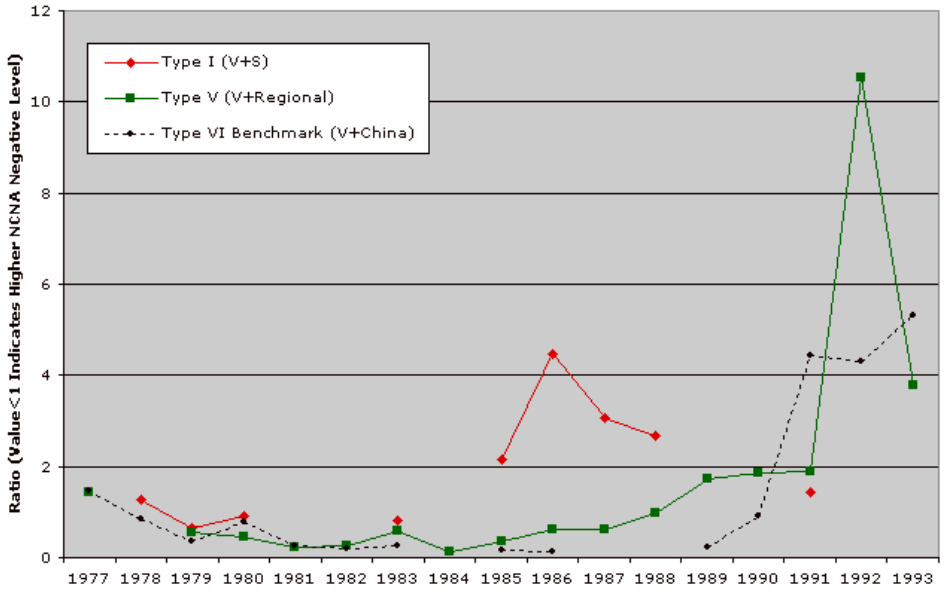
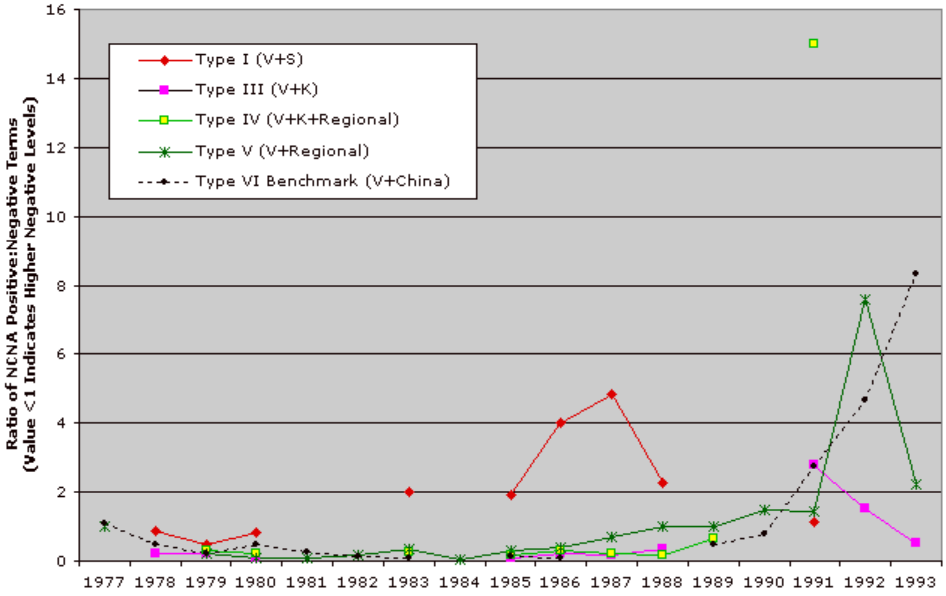


Figure 12: Stage 3 - Yoshikoder Concordance Reports
Pos:Neg Ratios by Sample Type, 1977-1993



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