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ABSTRACT
The U.S. government failure to predict the Shah's 1979 fall is a prototypical example of intelligence failure. We complement the close reading of memoirs and State Department documents with computational analysis of the documents in the aggregate, including cables to and from embassies and consulates in Iran. Using several techniques including traffic and sentiment analysis, we find that officials in Iran reported on the protests but did not stress the situation's severity until too late. D.C. officials were distracted by other events. Text analysis can complement qualitative approaches to more clearly indicate what good intelligence reporting can and cannot achieve.

"I think that the rapid change of affairs in Iran has not been predicted by anyone as far as I know."

Jimmy Carter, January 1979[1]

Revolutions are complex phenomena, and a well-planned coup – by definition – may be impossible to predict.[2] But this does not make such intelligence failures any less embarrassing for public officials. Analysts therefore hedge and qualify their assessments, while policymakers claim warnings were ambiguous or came too late. When much of the official record is classified, and even declassified documents can be interpreted differently, it can be difficult to assign responsibility decades after the fact. Analyzing intelligence on a regime change also requires applying knowledge from several fields, including international relations theory,[3] the study of bureaucratic agencies,[4] political psychology,[5] studies on intelligence,[6] and the history of particular states.

Within this broad literature, the failure to predict or prepare for the overthrow of the Shah of Iran is a prototypical example. After the 1979 Iranian Revolution, the U.S. lost its strongest ally in the region, listening posts along the border of the Soviet Union, and – in the Shah – a diplomatic partner who had long worked to support U.S. interests around the world. It was the beginning of a series of regional crises that continue to the present day. But even now there is no consensus about how and why policymakers were taken by surprise. Instead, there are many contradictory versions of these events, and the release of new information from once-secret records has not settled the debate.

Hard though it may be, it is vital that we try to clarify what happened, and why, not least because the prospect of regime change in Iran is once again a factor in U.S. foreign policy. This paper introduces new evidence and new methods for analyzing intelligence on the Iranian Revolution, but using approaches that might have more general applicability. While previous accounts of the Iran case – many by participants – are essential for understanding this episode, they also illustrate how qualitative approaches might not reveal the whole story. We therefore complement the close reading of memoirs and individual documents with novel computational analysis of political reporting in the aggregate, including metadata from still-classified State Department cables to and from the embassy in Tehran.

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We pose three core questions, breaking down the process of reporting, reaction, and policy-making. First, is it true that policymakers were not warned about the growing political unrest that would culminate in the Shah's downfall? We show with traffic analysis that, in fact, State Department officials in Iran were alert to the political protests, but did not press for high level attention until September 1978. We find that it was not until two months later – when the ambassador explicitly warned that the Shah was likely to lose power – that policymakers in Washington became more responsive, both in absolute terms and relative to how they responded to other embassies during the same period. Though more difficult to answer conclusively, we also ask if the language of the reports may have misled policymakers as to the *seriousness* of the threat, to the point that it required reconsidering a longstanding assumption that the Shah would retain power. Analyzing the content and sentiment of the cables, we find again that Washington was slow to respond, but by the time reports from Iran reflected the severity of the crisis, it may have already been too late. Together we find that viewing the Iranian case in the broadest possible context reveals that policymakers were not receptive to warnings indicative of dramatic changes in Iran. They may well have ignored such warnings even if they came from intelligence analysts rather than foreign service officers.

Defining and conceptualizing intelligence failures

This analysis requires taking a broad view of intelligence failures, starting with how we define intelligence. Traditionally, studies of this subject have focused on the work of analysts at bureaus and agencies that make up the Intelligence Community (IC). In the political and legal context, there are good reasons to define and delimit the scope of the IC, and distinguish the role of intelligence analysts from that of operators and policymakers. But for purposes of scholarly research, reconstructing events after the fact requires we take into account all pertinent reports provided to senior decisionmakers, including those from diplomats posted abroad. As Sherman Kent observed, foreign service officers have long been important gatherers and producers of intelligence, and diplomatic cables can be almost indistinguishable from IC reports. 'The foreign service officer, although not specially trained as an intelligence man, is by nature of his location and talent often a valuable and effective purveyor of intelligence'. We will see that senior decisionmakers included State Department cables along with IC analyses in assessing the quality of information that was available to them.[7]

Similarly, failure in intelligence is not definitionally attributable only to intelligence analysts. Operators and policymakers may also bear responsibility. Analysts are less likely to deliver reports on a given subject if they find such reports are ignored. Decisionmakers can also make such reports less likely if, as a matter of policy, they prevent analysts from using certain sources, or discourage them from asking certain questions. Moreover, intelligence on national security threats cannot usually be reduced to a binary: warning/no warning. Debates about canonical examples of intelligence failures, such as the collapse of the Soviet Union and the 9/11 attacks, center on the timing, frequency, and specificity of reports, and whether policymakers were sufficiently responsive to them. A key challenge – one this paper addresses head-on – is to develop more rigorous and replicable means to assess specificity and responsiveness, and tease out the direction of causality in these complex and interactive relationships.

Before setting out our theoretical framework, we acknowledge that we have only observational data, and demonstrating causal claims so long after the fact is difficult, especially since some of the communications remain classified. But given the likelihood that the historical record will always be incomplete, it is all the more important to devise approaches that incorporate all available data. Even if regime change will always be somewhat unpredictable, such data and methods can be combined with qualitative approaches to clarify the nature and extent of past and future intelligence failures.

Our approach is based on a principal-agent model. Principals (policymakers) depend on agents (analysts), but they have different perspectives, different incentives, and may mistrust one another. Both are incentivized to avoid the perception of having failed, which makes miscommunication more likely. Both are also vulnerable to cognitive biases[8] and 'information overload'.[9] When they share

these faults, it can be even more difficult to determine ultimate responsibility for the outcome. But if we break down the components of the process, we can test hypotheses to reveal both what worked and what did not work. A comprehensive understanding, after all, requires an analytic frame that can explain success as well as failure, and account for different kinds of failure.[10]

First, the role of providers is to collect, interpret, and relay information in an unambiguous and timely manner. An intelligence failure could arise because providers do not collect the right information, collect relevant information but do not analyze it correctly, or fail to communicate potentially useful analysis quickly or clearly enough to affect the outcome.

Policymakers should specify what information and analysis they need, provide feedback about what they are provided, and take action when the information warrants it. Here again, failure can occur at any point. But it is often because of the interaction – or lack of interaction – between providers and consumers. Providers typically have greater expertise and direct knowledge of their particular situation. But consumers are ultimately responsible for using information and making decisions about multiple situations simultaneously.[11]

Intelligence failures therefore take many forms. There might be in-fighting or a lack of clear responsibility between bureaucratic agencies responsible for gathering intelligence and the nature of politics makes the bureaucratic structure difficult to reform.[12] Important information may be discounted because of the source, or a signal may be lost in the noise. Analysts may become over-reliant on foreign government officials who understate regime threats, and fail to pay attention to regime opponents. Providers and consumers of intelligence find it difficult to overcome precon-ceived notions about actors and their incentives.[13] Before the Yom Kippur War, for example, individual analysts dismissed the potential for attack based on pre-existing views that underesti-mated Egypt's capabilities.[14] Relatedly, since 'more of the same' is usually the safest prediction, analysts find it difficult to recognize the potential for sudden change.[15] Beyond these biases, there are cognitive and career constraints too: analysts may equivocate for fear of committing and being wrong, especially in the face of overwhelming information flows. This does little to help policy makers prioritize. Even post-mortems held after an intelligence failure have implications for future failures.[16]

Guiding research questions

When analyzing an intelligence failure then, we should examine each link in the chain. In the case of the Iranian Revolution, we look for answers to the following questions:

(1) Did analysts warn Washington about growing political unrest?
(2) Were policymakers responsive to political reporting from Tehran?
(3) Did producers of political reporting accurately portray the seriousness of the threat?

These questions capture basic intuitions about what 'good intelligence'[17] should look like. There is a dependency structure here, where analysts bear the initial responsibility to intensify reporting on political developments during periods of instability. An intelligence failure could still occur if policy-makers are not responsive or proactive in seeking timely information. But they may not react because analysts have failed to signal the seriousness of the threat through the language and substance of their communications.

To be sure, it is unclear and perhaps unknowable whether the U.S. could have stopped the Iranian Revolution even with good intelligence. We acknowledge that there are some fascinating counter-factual questions that we cannot answer with our data. Instead, we will focus on the aspects of the Iran case that historical analyses agree to be important, and whether, and when, they were first recognized, reported, and factored into policymaking. Beyond this substantive contribution, we will lay out a portable methodological framework for quantitatively evaluating what producers of intelligence are actually producing, and whether consumers are actually consuming it.

Participant and scholarly analyses of the Iranian case

Scholars generally agree on the basic timeline and key events of the Iranian Revolution. The first sustained demonstrations against the Shah began in fall 1977. They flared up in January 1978, and again in August, when protesters called for the return of Ayatollah Khomeini from exile. The Shah declared martial law on September 8, and formed a military government on November 5, amidst increasingly violent protests and crackdowns. On 16 January 1979, the Shah left Iran for Egypt. Khomeini returned from his exile on February 1, and Iran became an Islamic Republic shortly after. The Shah was admitted to the U.S. on October 22 for medical treatment. On 4 November 1979, revolutionaries seized the U.S. embassy in Tehran, taking embassy staff hostage. The last of the hostages were not freed until 20 January 1981, Carter's last day in office.

U.S intelligence agencies' interpretations of events on the ground proved less than prescient. They did not foresee the demonstrations in 1977, and even a year later the CIA claimed that 'Iran is not in a revolutionary or even a prerevolutionary situation'.[18] After the declaration of martial law and subsequent riots, the Defense Intelligence Agency concluded that the Shah 'is expected to remain actively in power over the next ten years'.[19]

The fall of the Shah and the seizure of the American embassy were thus shocking. As early as November 1978, the American media were criticizing the Carter administration for being caught by surprise and 'giving more weight to the Shah's secret police than any of its other sources.' For his part, Carter wrote a note to National Security Advisor Zbigniew Brzezinksi, Secretary of State Cyrus Vance, and Stansfield Turner, CIA Director, in mid-November complaining about the quality of political intelligence reporting from Iran.[20]

After the initial shock, officials were quick to defend themselves. One of the first was the American ambassador, William Sullivan. His leadership of the embassy had come under heavy criticism. In his 1981 memoir, *Mission to Iran*, Sullivan admitted that 'we did not see the beginnings of a revolution' but noted that American diplomats reported mounting opposition as early as spring 1978.[21] Sullivan argues that it was officials in Washington who failed to respond to these reports and claims that the non-response to a November 1978 cable titled 'Thinking the Unthinkable' was particularly indicative of this heedlessness. In it, Sullivan described the profound challenges facing the Shah, and suggested that the U.S. might be better off bolstering the moderate opposition and preparing itself to accept a new, less friendly regime. Carter was angered by the message, and demanded to know why he had not been better informed. According to Sullivan, Carter had not been paying attention.[22]

Gary Sick, Iran specialist in the National Security Council, offered a sharply different account. In his own 1985 memoir, Sick blamed Sullivan for his 'very optimistic reports', that left Washington unprepared for the crisis.[23] He argued that early warning signs were 'overlooked entirely in embassy and other official government reporting until much later'.[24] A key problem was the embassy's lack of contacts outside the Shah's entourage, the Western-educated elite, and military and security forces.[25]

Sick's boss, National Security Advisor Brzezinski, offered a similar account in his 1983 memoir: '[T]he Iranian crisis had been germinating throughout the year, but the recognition of it was slow to mature. Our intelligence as late as the fall of 1978 was predicting political continuity in Iran'.[26] Brzezinski credited Sick with having had a more pessimistic view, which was what prompted him to open a back channel to Iranian Ambassador Ardeshir Zahedi. It was this series of direct dialogues with Zahedi – not reporting from U.S. officials in Iran – that convinced him that 'the Shah was in trouble'.[27]

Secretary of State Vance admitted he did not foresee the threat to the Shah, but in his own memoir claimed that it was because he was not warned: 'We were assured by the judgment of the ambassador, the experts in the State Department, the CIA, and other agencies and foreign governments that even though he might be required to make political compromises that would dilute his power, the Shah was not in serious danger'.[28]

Not everyone involved wrote a memoir, but even those who didn't had their defenders. In a classified study for the CIA journal *Studies in Intelligence*, Allen H. Kitchens argued that Agency

officials 'compiled a substantial amount of accurate information and analysis about major events, particularly the demonstrations and riots'. He agreed that they did not pay sufficient attention in the first quarter of 1978, and until March 1978 there was no direct contact with the religious opposition. But he emphasized that it was senior policymakers who preferred to think that the Shah had staying power.[29]

The scholarly literature is also characterized by divergent accounts. Jervis was the first outside researcher to have access to classified political reporting as part of a post-mortem he wrote for the CIA. He found not only that CIA officials in Iran provided 'little information about the opposition',[30] but that more senior officials did not typically read what analysis they did provide. Moreover, Agency officials were unaware of the problem even as late as August 1978, when they described reporting on Iranian domestic politics as 'first rate'.[31]

Based on his reading of contemporary accounts, memoirs, and interviews with participants, James Bill argued that, contrary to Vance, at least some mid-level State Department officials understood by mid-summer 1978 that the Shah's troubles required rethinking the U.S.-Iran relationship. But he found that 'the American foreign policy establishment was badly divided over the Iranian situation, and the major actors were involved in a tangled web of personal and policy rivalry'.[32]

In a recent historical study based on newly declassified documents, Javier Gil Guerrero wrote that the State Department recognized even before Carter became president that intelligence on the Iranian opposition was inadequate. He credited Sick and a U.S. diplomat in Tabriz with recognizing the religious dimensions of early protests, but this concern was not taken up by others or recognized as part of a troubling pattern.[33]

Other scholars have also used declassified State Department cables to examine the roots of the failure. The general consensus is that while there was reporting on the protests from Iran, policymakers did not take such warning seriously. Daughtery, for example, suggests that budget cuts and fear of alienating the Shah hindered the collection of intelligence on the Iranian situation.[34] Donovan, on the other hand, finds that intelligence from Iran was good, but was ignored by policymakers because it went against their preconceived notions.[35]

Bar-Joseph is the only scholar who has examined the U.S. response in a comparative context, contrasting the US response with that of Israel's. As do other scholars, he emphasizes the lack of local contacts among US officials, arguing that Israel's relations with local officials gave them greater knowledge and led them to be better prepared. Nevertheless, as late as the summer of 1978, Israeli estimates were that the Shah would remain in power for at least a couple of years.[36]

Thus, scholarly accounts and the memoirs of participants emphasize very different reasons why the Carter administration struggled to understand and respond to the Iranian Revolution, whether organizational factors, cognitive biases, or divided attention. But they do agree that rivalries and bureaucratic infighting, especially between the National Security Council and the State Department, poisoned the atmosphere and inhibited clear communications. They also agree that the most senior officials were preoccupied with other things. And these officials had a strongly-held belief that the Shah was very secure in his position, a belief that was slow to change in part because the U.S. had come to depend on him and lacked good alternatives.

But a close reading shows that these accounts disagree about what might seem like basic facts, including whether analysts offered any timely warnings that the Shah was in trouble, whether officials in Washington heeded such warnings, and whether anyone appreciated the importance of religious leaders in inspiring and leading the revolution. Even the same accounts sometimes offer conflicting assessments, such as Sick's claim that early anti-secular protests in Qom were 'overlooked entirely'[37] – which is contradicted by several contemporary reports[38] – and his assessment that information coming from the embassy in Tehran was either 'extremely meager' or 'voluminous'.[39]

The accounts of participants and scholars therefore provide conflicting answers to all of our questions, but they almost all make observations about the quantity of political intelligence reporting. As we shall see, they also note whether, and when, this reporting uses particular words or types of language. Now that much of that reporting has been declassified and made available in machine-

readable form, we can analyze the text as data, offer precise measures for these observations, and finally establish some basic facts.

Iranian cable data and traffic analysis

This paper mainly uses State Department communications from Iran to analyze the information provided to policymakers.[40] Conversely, we utilize outgoing State Department communications from Washington referencing Iran to show how policymakers responded. The State Department has released many thousands of records from the years 1973–1979 transmitted to and from Iran. In addition to the full-text and extensive metadata for these cables, they have also released the metadata for other documents delivered by diplomatic pouch and more limited metadata for records that are still classified, including the date, sender, receiver, subject line, and a field called 'Traffic Analysis by Geography and Subject' (TAGS). Foreign service officers selected one or more of these TAGS for each communication to facilitate filing and retrieval. So we can apply traffic analysis to nearly all State Department communications to and from Tehran and other diplomatic posts, and also analyze the text of all the declassified diplomatic cables.[41]

Before proceeding, we address two potential objections. First, we do not have access to the multitude of reports intelligence consumers, specifically policymakers in Washington D.C., received from different sources, including special envoys, backchannels, the NSA, and the CIA. One reason is that, even forty years after the fact, intelligence agencies are loathe to declassify records that might reveal sources and methods. But we can use CIA documents that reference Iran released through its automatic declassification program. While we cannot know whether these records are representative of CIA intelligence on Iran more generally, much less the rest of the IC, they do offer an interesting contrast with the more complete State Department reports. As we shall see, they indicate that the CIA was even slower to respond to the deepening crisis.

We believe it is appropriate to focus on the best information that was made available to policy-makers, and there are several reasons to believe that the State Department reporting was the most consistent and comprehensive. Individual missions to Tehran, such as those of Richard Helms and General Robert Huyser, could have had an impact. But they were often recorded in the diplomatic cables and, by definition, a one-off mission did not produce a stream of information that can be analyzed longitudinally to measure the level of attention or the language of communications. The back channel with Zahedi became important once Brzezinski decided the normal sources of information about Iran had failed. But we are mainly focused on the period leading up to this point. As for the CIA, it only had a few analysts in Iran, and almost none of them spoke Farsi. They tended to focus on the security of covert U.S. communications facilities and the communist threat.[42] The diplomats were more numerous, tended to have better language skills, and had an easier time communicating with Iranians of diverse socioeconomic backgrounds on a range of issues.

Our analysis also addresses when and how policymakers responded. During the main period under study, i.e., up to November 1978, any such response would have been registered by the State Department. There have been times when the CIA has been involved with implementing policy, such as when mounting a covert operation. But normally there were structural factors that separated CIA analysts from decision-makers in order to prevent the politicization of intelligence. During the Iranian revolution, these analysts were not even permitted to communicate directly with others working on the same problems, such as Gary Sick of the NSC staff.[43] By contrast, we know that significant State Department cables were forwarded to the White House, draft responses were discussed and approved at high levels, and the National Security Council staff devoted time to analyzing State Department reporting while the crisis was still unfolding.

It is possible that the totality of political reporting from all agencies would present a different picture. But intelligence consumers were ultimately responsible for recognizing and relying on the best information available, and none have claimed that other sources had better reporting than the State Department. Consequently, while we do consider non-State Department reports, it is neither

possible nor necessary to include all of them in the quantitative analysis to answer our main research questions.

A second objection is that our methods may give undue emphasis to 'quantity' instead of 'quality'. Like other social scientists who have begun to analyze text as data, we do not see such methods replacing a close reading of the documentary record. The inspection and interpretation of individual reports is essential even for validating the results of computational analysis.[44] But analyzing all the reports in the aggregate can actually help to highlight the ones that were unusual. Conversely, discerning the broader patterns helps us to avoid 'cherry-picking'. Computational analysis and a close reading of key documents are therefore complementary approaches, and each becomes more probing and powerful when the two are combined.

We obtained the data from the State Department's Central Foreign Policy Files (CFPF), which are available from the U.S. National Archives. To focus on the Iran-related communications from the massive CFPF collection for the years 1973–1979 (>3 million), we first extract all reports from the embassy and consulates in Iran (Tehran, Isfahan, Tabriz, and Shiraz). The reports were further categorized in three ways, by date, subject, and format. First, the main temporal focus of our analysis is the 13-month period between October 1977 and November 1978, i.e., from when protests broke out to when the most senior policymakers were aware of the gravity of the situation and demanding better information. But we will also use the earlier and later periods for comparison. For most of the analyses, we group the communications by week. The demonstration data we use end on 14 February 1979 which is a Wednesday. To ensure that the weeks are seven days and correspond with the demonstration data, we start aggregating our weekly data as of Thursday, 30 December 1976. There are a total of 8,502 reports originating in Iran, and almost all of these reports (8,218) are from the capital. Additionally, there were 4,846 reports addressed to U.S. missions in Iran, with 4,624 including the Tehran embassy.

Second, we focus on communications related to the political situation by using original State Department metadata, such as subject TAGS like PINT (Internal Political Relationships) and PORS (Public Order and Safety). About a fifth of the records between October 1977 and November 1978 have a Political TAG, since communications still covered the full range of embassy activity, much of it unrelated to the political situation even as the protests intensified. For our time period, we analyze 3,036 political communications from a U.S. diplomatic mission in Iran that included the State Department as one of the recipients and 1,167 that were from the State Department to a mission in Iran.

Finally, for analyses requiring use of the message text, we are limited to communications where the message text has been declassified and is available in electronic format. But for some of the traffic analysis we can also use 'withdrawn' cables, where only the metadata has been declassified, as well as paper records that were delivered via diplomatic pouch ('p-reel' records), including those for which the message text is still classified. There are a total of 340 incoming and 131 outgoing cables without text.

Hypothesis 1: U.S. officials in Iran Were Not Responsive to Growing Political Unrest

If we only looked at memoirs and individual documents, it would be difficult to establish when embassy political reporting began to reflect the deteriorating situation in Tehran. For instance, Ambassador Sullivan claimed in his account that reports from Tehran during his 1978 summer leave did not indicate any 'acceleration in the pace of political activity or any accentuation in the campaign of dissidence and disorder'. In fact, an August 1 cable reported demonstrations in 13 cities, some of them deadly, and noted that 'vocal discontent has increased sharply in Tabriz as well as in Isfahan'. On August 17, Sullivan's deputy chief of mission concluded that the Shah had under-estimated his religious opponents. They had become the 'centers of political power', and moderates were too intimidated to challenge Khomeini and his calls for violent revolution.[45]

How then can we reconcile such contradictory evidence? The most straightforward way is to tally political reports and compare them to the increase in the frequency of political protests. The resulting graph (Figure 1) provides prima facie evidence that, in fact, the embassy responded to political events, while the response from Washington lagged behind. (The diamonds in the graph correspond to the number of demonstrations for the week.)

As with all time-series, we can also look for 'breakpoints' – that is, fundamental changes in the rate of communications that may (or may not) be correlated with substantively important events.[46] We locate structural changes for the period January 1977 through the end of 1979. We run the analysis separately for reports from Iran and for reports to Iran. For the reports from Iran, the analysis reveals three breakpoints. The first is between October 10th and 16th 1977, which corresponds with the period when the protests first began. A second break point is at the beginning of September, after protests intensified and Sullivan returned from home leave. The final break point in the reports from Iran is in March 1979, after Khomeini returned to Tehran but before the Islamic Republic was declared. There are only two breakpoints in the reports to Iran: at the beginning of September 1978 and then again at the beginning of March 1979, that is after Sullivan returned and again after Khomeini returned, but not when the demonstrations started.

We can also contrast the State Department reports with the same analysis using CIA documents. The CIA has declassified almost a million documents covering the post-World War II era. About 2,000 mention Iran between 1 January 1977 and 31 December 1979, but many are unrelated to its internal political situation. We therefore limited our dataset to the *National Intelligence Daily*, which was a CIA
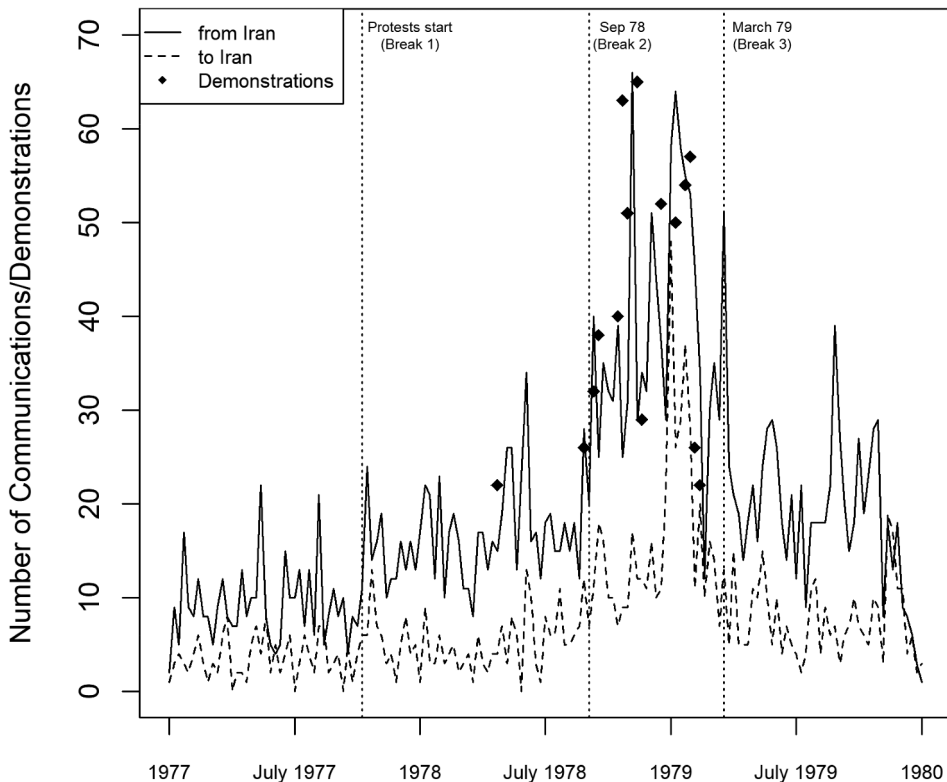

Figure 1. Communications with political TAGS and demonstrations from the Iranian revolution.

report for the IC. We sum the number of mentions of Iran in these documents by week and in Figure 2 plot the weekly totals against demonstration data.

Whereas cables were 'raw' reports from the field, the *National Intelligence Daily* was a finished product, produced in coordination with other agencies, so we should expect some lag in how quickly the same events would be reported. But there was no increase in CIA reporting on Iran until November 1978, months after the demonstrations had intensified and foreign service officers raised the alarm. Indeed, the first breakpoint in CIA documents occurs around the same time as Sullivan's Thinking the Unthinkable memo (November 1978). There is a period of increased communications and then a second breakpoint in April 1979, after the Islamic Republic had already been established.

But protests can cause more protests, and political reporting can lead to more political reporting, without either being causally related to the other. A more rigorous test of the first hypothesis requires running a time series analysis to determine if the number of reports from Iran each week could be predicted from the number of demonstrations. If the U.S. embassy was not responding then we should find no relationship between the number of protests and the number of cables.

For the main independent variable, Rasler provides weekly numbers of political demonstrations in Iran from December 1977 to February 1979.[47] In Appendix Figure A1, we plot the number of weekly demonstrations against the number of cables from Iran to the State Department.

For the dependent variables, we employed various measures on incoming reports from U.S. missions in Iran: all incoming communications (Model 1), Political-TAG communications (Model 2),[48] Political cables with language indicative of unrest (Model 3),[49] and political cables with mentions of 'Khomeini' and 'Tudeh' – the Communist party of Iran which U.S. officials long suspected of plotting the Shah's overthrow (Model 4).[50]

Results are displayed in Table 1.[51] We find a positive and significant effect of demonstrations across all the different measures of State Department reports from Iran to Washington except for cables with Khomeini and Tudeh mentions. Column 1 of Table 1 shows that an additional 10 demonstrations led to 3.2 additional reports from Iran. In column 2, we look specifically at State Department reports with a political TAG. Here, every additional 10 protests increased the number of political reports by 2.4. Considering that, on average, only about 41% of the cables were tagged as political, this increase represents a stronger relationship than we find when measuring the overall number of reports.
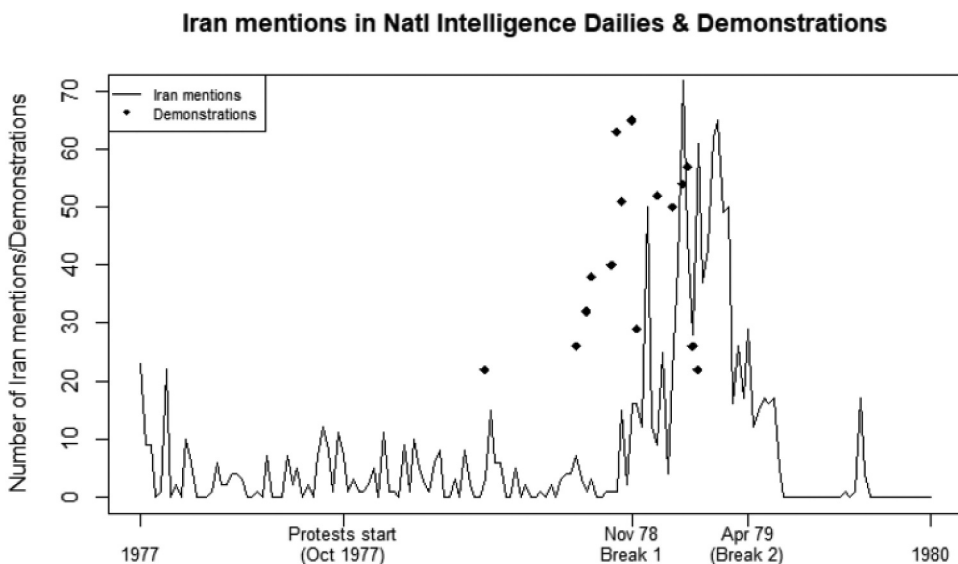
Figure 2. CIA documents and demonstrations from the Iranian revolution.

Table 1. Results from ARIMA(0,1,1) regressions.

	Dependent variable: Number of reports			
	All Incoming	Political	Revolution	Khomeini/Tudeh
	3706 commun.	1516 commun.	403 cables	114 cables
MA(1)	−0.644***	−0.742***	−0.681***	−0.407**
	(0.100)	(0.087)	(0.088)	(0.200)
Demonstrations	0.315***	0.236***	0.045**	0.008
	0(0.114)	(0.057)	(0.023)	(0.016)
Observations	55	55	55	55
Log-likelihood	−232.837	−194.323	−144.605	−121.056
σ^2	275.668	67.620	11.125	4.763
Akaike Inf. Crit.	471.675	394.646	295.210	248.113

*p < 0.1; **p < 0.05; ***p < 0.01

Table 2. Expectations of ratio in traffic between information providers and consumers

		Providers Succeed	Providers fail
Consumers	succeed	Increase in traffic both from/to Similar ratio	Increase in traffic only from consumer Lower ratio
Consumers	fail	Increase in traffic only from provider Higher ratio	Little change in traffic volume Similar ratio

Thus, our results contradict the hypothesis that policymakers were not informed about the deteriorating situation in Iran. The protests had a significant and measurable effect on State Department reporting from the field, whether in terms of the number and length of their reports, or how they compare to contemporaneous reporting from the IC.[52]

Hypothesis 2: Policymakers did not pay sufficient attention to political reporting from Iran.

Senior State Department officials and the White House might have decided that the Iranian issue was not as pressing as other issues. For instance, protests were spreading at the same time there were high-level negotiations between Israel and Egypt culminating in the Camp David meetings and eventual agreement from September 5–17, 1978. Because of the high priority of these talks, Washington officials might have faced an information overload problem and failed to appreciate the importance of the Iranian reports.

We can test this hypothesis by comparing the ratio of political reports from Iran to Washington with political reports from Washington to Iran. Table 2 distinguishespatterns characteristic of communication breakdowns and communication successes betweeninformation providers and information consumers.

- If intelligence providers recognized an increased risk of political instability, the number of communications to the State Department should have increased. If the consumers of the information correctly interpreted it, they would have responded in kind and provided continuous feedback. The ratio would not have displayed any marked tendency to increase or decrease over time, but there should have been a greater flow of traffic overall.
- If the providers upped the tempo of political reporting but the consumers were not paying attention, we would expect the ratio to have increased, as the volume of traffic to the embassy and consulates lagged behind.
- If the consumers were demanding more information but the providers were non-responsive, we should expect a lower ratio as traffic from the U.S. mission in Iran would have lagged behind.

- If both consumers and producers failed to respond to increasing political instability, we would expect a similar ratio and a similar volume of traffic before and during the crisis.

More specifically, if there was a communication from the State Department for every report from Iran, the ratio would be 0.5. But the State Department does not generally send as many communications as it receives from missions abroad. Across all non-Iranian political communications, the average ratio was 0.7445, i.e., one for every three. Figure 3 shows how, before October 1977, there were very wide fluctuations in the ratio. But the State Department was generally more attentive to Iran than it was to most embassies and consulates, and at times the ratio of communications to and from Iran was one-to-one. In the key period October 1977 to May 1978, however, precisely when demonstrations intensified, the State Department became less rather than more responsive to messages from Iran. In fact, it was less responsive than it was to the average embassy.

This impression is confirmed by the results of Kolmogorov-Smirnov tests to compare the weekly ratios of reports between Iran and Washington with the average weekly ratios of reports between 100 other major outposts and Washington. The Kolmogorov-Smirnov test examines whether groups are drawn from the same distribution. In this case, we are interested in whether the ratio of responses to Iran followed the same distribution during different time periods as the political communications to other embassies across the world. Unlike the t-test, the KS test will give the same sign when either group is specified first. It will be recalled that a higher ratio indicates less responsiveness on the part of the State Department.

In Table 3 we compare the ratios across three periods, as suggested by the breakpoints found earlier in the analysis. The first period is the 10 months before demonstrations started – from 30 December 1976 to 12 October 1977. The second is the demonstration period – 13 October 1977 through 10 September 1978, which was about the time Sullivan returned from home leave. The final period lasts from 11 September 1978 through 20 April 1979.

In all three periods, the difference between the mean ratios is significant but the direction changes. In the first and third periods, the State Department was more attentive to Iran than it was to other embassies. But again, in the crucial middle period, when protests were building, the
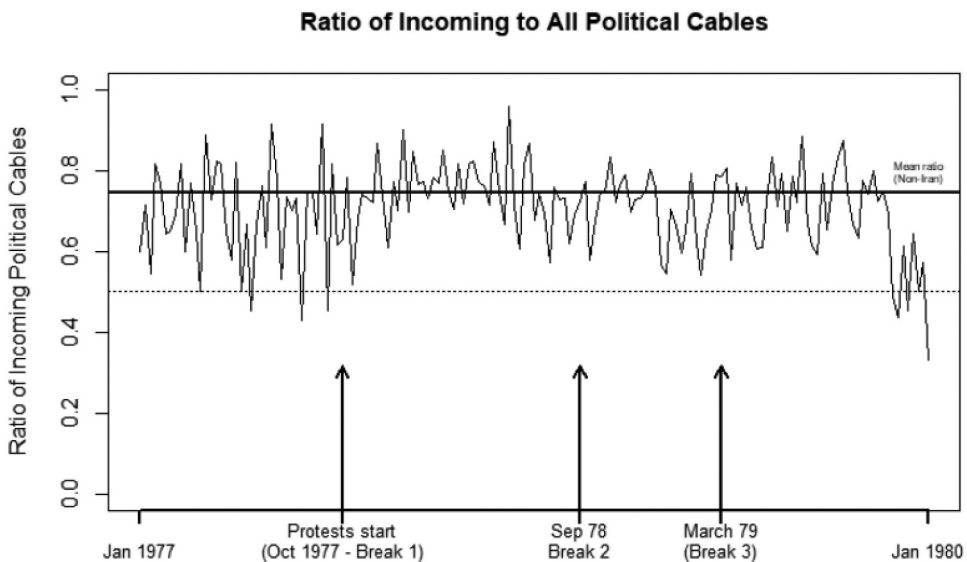

Figure 3. Ratio of communications from Iran to the state department and state to Iran. The solid black line shows the mean ratio for non-Iranian political communications. The lines with arrows show the breakpoints identified in the series.

Table 3. KS-tests of ratio of communications to/from Iran compared to Political communications from all embassies.

Period		Mean ratio	KS-Test
12/30/76 − 10/12/77	Iran	0.72	0.44***
	Non-Iran	0.74	
10/13/77 − 11/8/78	Iran	0.77	0.50***
	Non-Iran	0.73	
11/9/78 − 4/20/79	Iran	0.71	0.32*
	Non-Iran	0.75	

State Department was less responsive to Iranian communications, and significantly so compared to its responsiveness to other embassies.[53]

To examine whether there was a relationship specifically with the Camp David negotiations, we break out all the Political communications between the State Department and Israel or Egypt.[54] We compare the ratio of these communications to the ratio of communications from Iran for the same periods as before, as shown in Table 4. Once again, in periods 1 and 3, the State Department was significantly more responsive to Iran than it was to Israel or Egypt, though the difference is not significant for the third period. During the crucial period when protests were building, it shifted attention to Israel and Egypt, to the point that it nearly equaled the attention it was devoting to Iran.[55]

As a robustness test, we use as the break between the second and third periods the week Sullivan sent the 'Thinking the Unthinkable' memo. The results are the same except that the third period comparison between Iran and Israel/Egypt is now significant and the State Department was more responsive to communications from Iran.

Hypothesis 3: Analysts Missed or Misunderstood the Severity of the Situation

Of course, what mattered most was not whether every communication was getting a response, since many of them concerned routine or unrelated matters. What mattered was whether top decision-makers on the seventh floor of the State Department or in the White House were being alerted and paying attention to the deteriorating political situation, since a reaction that might have changed the outcome would have required a high-level policy decision.

We can measure whether intelligence providers failed to fully alert Washington to the severity of the crisis in a few ways. First, the uptick in political reporting might not have included messages specifically addressed to the most senior decision-makers; second, intelligence providers might have been slow to use words like 'revolution'; third, even while the volume of reporting increased, and occasionally included words indicative of radical change, the overall sentiment of their cables might have stayed the same.

High-level reporting. In principle, it might not have mattered whether warnings were issued or received by the most senior officials, since such warnings could have moved up the hierarchy if they were deemed to be important. But in practice, officials flagged communications intended for senior leadership as 'Cat-C' or 'Cat-B', i.e., bearing significant strategic interest, and 'Cat-A' for communications with medium strategic interest. Communications marked 'Cherokee' were for the attention of

Table 4. KS-tests of ratio of communications to/from Iran compared to Israel/Egypt.

		Mean ratio	KS-Test
12/30/76 − 10/12/77	Iran	0.72	0.41***
	Egypt/Israel	0.79	
10/13/77 − 11/8/78	Iran	0.77	0.19
	Egypt/Israel	0.76	
11/9/78 − 4/20/79	Iran	0.71	0.29
	Egypt/Israel	0.76	

the President and/or Secretary of State. As we shall see, such messages were much more likely to elicit a response, especially when they came from the Ambassador himself. That the high-level cables did not start until relatively late suggests that Embassy officials were hedging their bets and not reporting on the seriousness of the situation.

When we count all of these communications, we find a roughly equivalent number of incoming and outgoing high-level reports before September 1978, and no clear pattern of Vance or Christopher becoming more or less responsive to messages from Sullivan about the political situation (Figure 4). But very few of Sullivan's high-level communications were about the protests, with none at all bearing the PINS Tag (for internal political situation) until April 1978. Instead, there were dozens of messages concerning matters like visits by Carter and Menachem Begin to Iran and the Shah's role in international diplomatic negotiations.

Sullivan's April 1978 message regarding internal security suggested Washington should join in cautioning the Iranian Prime Minister against repressive measures against the political opposition, and it elicited a quick response from Vance about how he shared this concern.[56] On May 14 Sullivan again expressed worry that the Iranian government was using heavy-handed methods, and on June 16 he reported an audience in which a self-confident Shah indicated he was preparing further liberalization. But neither had CAT or Cherokee high-level designators, and neither appears to have elicited any response.[57] Instead, Vance and Carter sent multiple messages concerning the Shah's help in negotiations over Pakistan's nuclear program and the Israel-Egypt negotiations.

After Sullivan returned to Tehran at the end of August, he dispatched a Cat-B cable to Vance and Brzezinski proposing that Carter send a message to the Shah recognizing and encouraging democratic reforms.[58] Carter called the Shah, and the White House issued a statement confirming Washington's close relationship with Tehran. But this did not initiate any sustained reexamination of the reporting from Iran. It was actually Congress that pressed for answers. On September 15, there was a closed door hearing of the Senate Foreign Relations Committee, where State Department officials tried to explain why they had not been better prepared for what was happening in Iran. Later

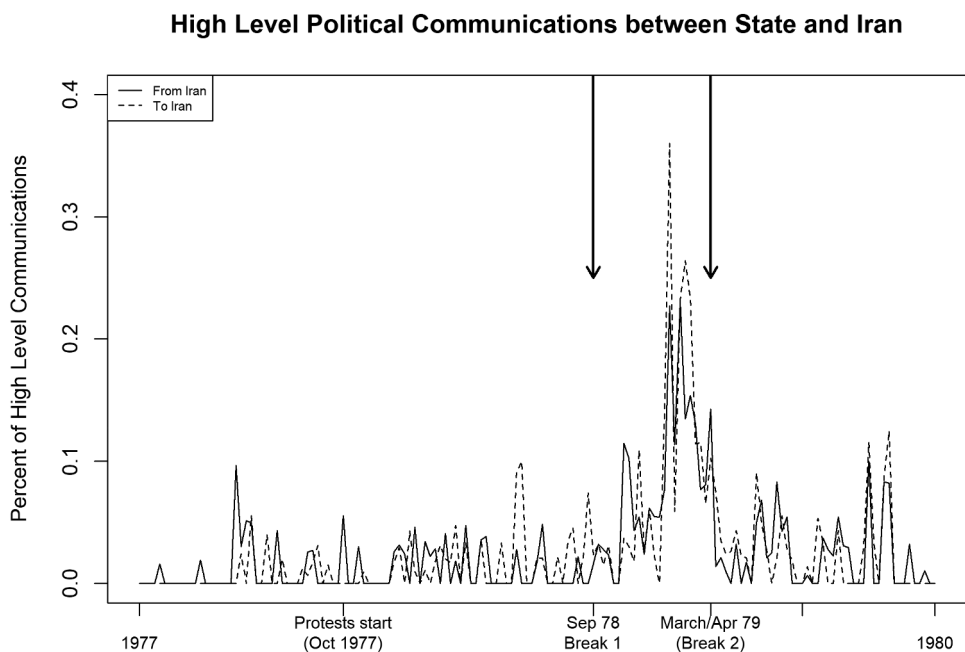**High Level Political Communications between State and Iran**

Figure 4. Proportion of all high-level communications from Iran and from the state department. The lines with arrows show the breakpoints identified in the series.

that month, the Director of the CIA's National Foreign Assessment Center Robert Bowie testified to the same committee that the CIA had had difficulty learning about dissident groups.[59]

Not until the end of September did Sullivan begin to send a steady stream of high-level messages describing how the situation was deteriorating.[60] The first time Vance or Christopher sent even a tangentially related message of their own was September 13, when Christopher wrote about how they are planning to handle a *New York* magazine story on Savak activities in the U.S.[61] There was no sustained attention from the most senior officials at the State Department about the deteriorating Iranian situation until the end of September, but it did not come close to matching the messages coming out of Iran. By the last week of October, almost twenty percent of all State Department messages intended for high-level attention came from Sullivan. But over 95% of Christopher and Vance's outgoing messages went somewhere else. A smaller percentage were addressed to Tehran than at several points during the preceding year, such as when Carter needed the Shah's help with Pakistan and Israel-Egypt negotiations. When the President and Secretary of State finally began to focus on the Iranian revolution, it occupied an astonishing amount of their attention. For two weeks in December and January, a quarter or more of all high level messages coming out of Washington went to Iran.

A breakpoint analysis of the high-level reports stream from Iran as a percentage of all high-level communications confirms that there was no structural change until early September 1978, after Sullivan returned from home leave, and again in late February 1979. The first breakpoint in high-level reports from Washington to Iran doesn't occur until mid-October.

All in all, the data is consistent with the hypothesis that the mission to Iran reacted to protests by increasing political reporting, but only from lower-level staff. The Ambassador himself rarely flagged this as requiring high level attention. When he occasionally did so during the spring and summer of 1978, it was not to warn that the Shah was in danger, but rather to warn that his government might use brute force to crush opposition. It elicited little or no response. If anything, political reporting out of Tehran during the crucial period when the situation was deteriorating was less likely to elicit a reaction from Washington than previously. The State Department was also less, rather than more, responsive to Tehran than to other embassies during the same period. This may be why, as Jervis writes, U.S. policymakers learned too late that revolution was coming: 'there were not full discussions during the spring and summer when the United States had more options'.[62]

It was only in September that Sullivan began to push for more attention. And it was not until the next month that Washington became more responsive. Instead of acknowledging its previous inattention, the White House instructed the Tehran embassy to 'strengthen reporting' and dispatched additional staff to 'help fill in gaps' (U.S. Department of State 1978).

Cable language. The language used in reporting obviously matters too, since analysts can hedge and qualify their assessments. Scholars have therefore tried to isolate particular words that portended unmistakable change. For instance, Guerrero makes a point of noting when the word 'revolution' was first used to describe the situation in Iran, which he says was when Ambassador Sullivan responded to the demonstrations in Qom and Tabriz in February 1978.[63] Similarly, Jervis is struck by the rarity with which analysts used the word 'hate', which illustrated their failure to capture the intensity of negative feeling among Iranians toward the Shah.[64]

With computational methods we can analyze all the language of all the declassified State Department cables going to and from Iran, starting with word counts of the terms REVOLUTION, POLITICAL UNREST, POLITICAL CHANGE, DEMONSTRATION, and COUP. We show the data in Figure 5. The patterns clearly indicate that while the embassy in Iran gradually increased their use of this kind of language in 1978, Washington officials rarely used these words aside from the moment when the Shah was actually driven into exile.

Gary Sick recalls that it would have been 'bad form', even career threatening, to betray a lack of confidence in the Shah by using such words, in light of his central importance to American foreign policy.[65] An alternative approach, one that does not depend on the use of particular words, is to use a sentiment analysis tool to compare cables, both over time and between the embassy and the State

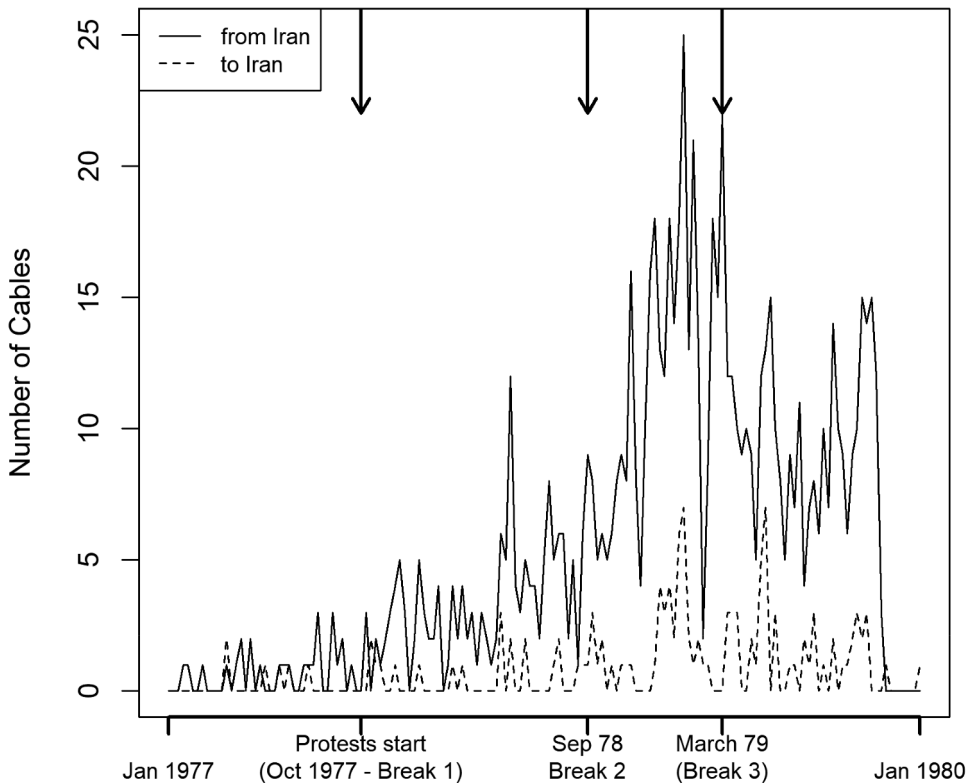## Revolution Mentions from/to Iran

Figure 5. Weekly count of cables using revolutionary language from and to Iran. The lines with arrows show the breakpoints identified in the series.

Department. Sentiment analysis tracks the use of many different words – both positive and negative – to determine the overall tone.[66] While individual field-specific words might have a different meaning than that conveyed in every-day usage, we are here using this tool simply to identify language trends in cables from and to Iran.

Figure 6 shows the results. Before the protests started in October 1977, officials in DC and Iran used mostly positive language. The tone of the cables from Iran began to change after the protests started, turning very negative after September 1978. In contrast, the messages from DC to Iran remained largely positive in tone throughout the period. The State Department was not necessarily more optimistic about the situation than were local officials, but their language was more consistently positive, whereas embassy reporting became much more negative. This too is consistent with the hypothesis that officials in Washington were not responding to the worsening news out of Tehran.

The texts of a cable sent from D.C. to the West German Foreign Minister Genscher and the response from Tehran illustrates the difference in tone. D.C. officials stressed in the cable that the worst appeared to be over:

THE SHAH REALIZES, HOWEVER, THAT ALTHOUGH HE HAS SOME BREATHING ROOM, HE STILL FACES GRAVE PROBLEMS IN RESTORING STABILITY TO IRAN. WE CONTINUE TO BELIEVE THAT, WITH THE POLITICAL SHREWDNESS HE HAS SHOWN IN THE PAST, HE RETAINS THE CAPABILITY TO LEAD THE COUNTRY TO ELECTIONS. WE BELIEVE IT IS ESSENTIAL THAT HE REMAIN IN CONTROL.[67]

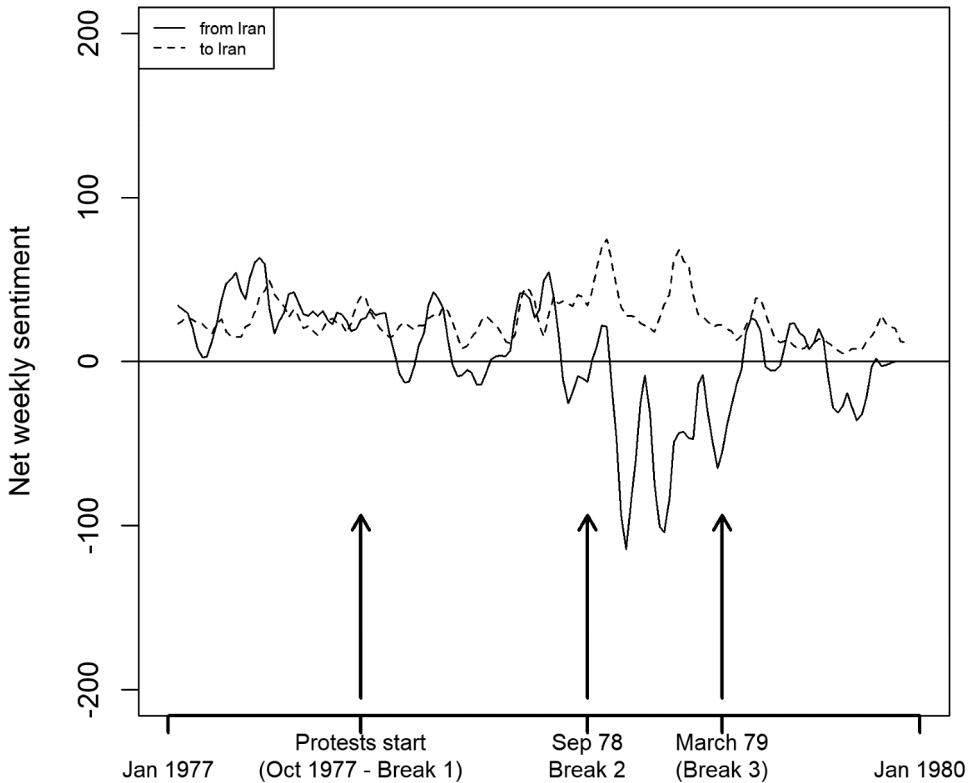## Sentiment of weekly cables from/to Iran
4-week moving average

Figure 6. Sentiment analysis of political cables from and to Iran. The lines with arrows show the breakpoints identified in the series.

The response from Tehran was much more negative in tone:

THE MESSAGE WHICH WAS SENT IN YOUR NAME TO FOREIGN MINISTER GENSCHER REPRESENTS A FAR MORE SANGUINE VIEW OF THE SHAH'S ABILITY TO CONTROL FUTURE EVENTS IN IRAN THAN I COULD CURRENTLY ENDORSE. I REALIZE THE NEED TO BUCK UP PANICKY WEST EUROPEANS BY STOUT DECLARATIONS. HOWEVER, I TRUST THAT CABLE DOES NOT REPRESENT THE DEPT'S INTERPRETATION OF THIS EMBASSY'S REPORTING. IF SO, THERE SEEMS TO BE A COMMUNICATION GAP.[68]

The next day Sullivan sent the famous 'Thinking the Unthinkable' cable.

We can similarly perform KS-tests to see if there is a significant difference in the sentiment in the different periods we have analyzed. In the period before the protests started, there is not a difference in the sentiment of cables from Iran and cables to Iran. In the second and third periods, there is a significant difference, and cables from Iran were much more negative than those to Iran.

The evidence then suggests that Embassy officials gradually began to give greater emphasis to the severity of the situation. We begin to see a change in the language used before September 1978, but the major change occurred after Sullivan returns from home leave. This is consistent with the argument that intelligence providers did not want to seem overly pessimistic in case the Shah was able to stay in power. By the time the substance of their reporting focused on the threat of regime
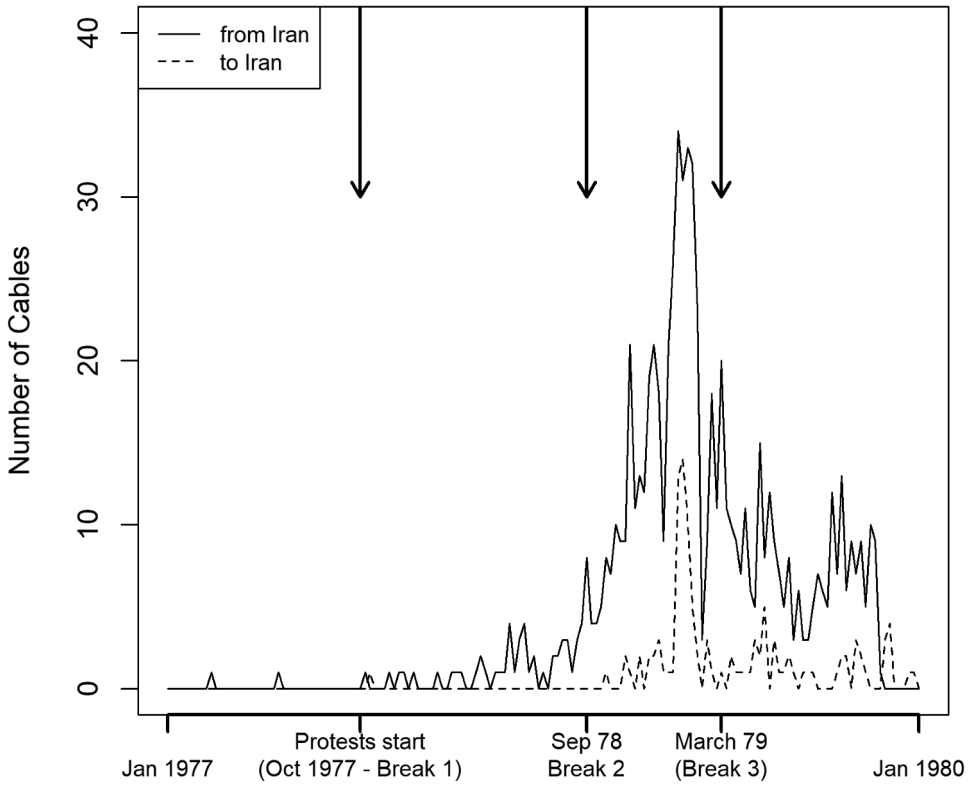
Khomeini Mentions from/to Iran

Figure 7. Khomeini mentions in political cables from and to Iran. The lines with arrows show the breakpoints identified in the series.
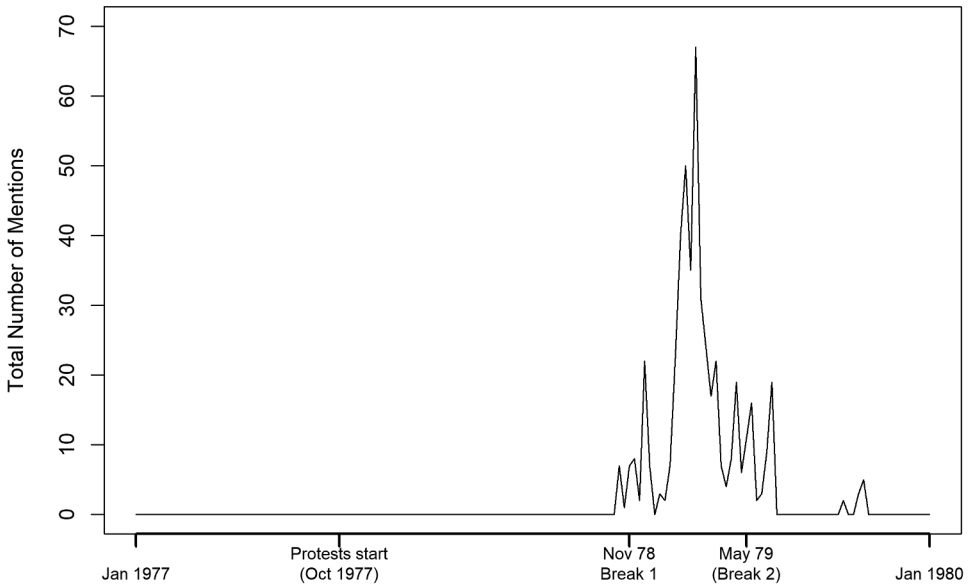
Khomeini Mentions in CIA Natl Intelligence Dailies

Figure 8. Khomeini mentions in national intelligence dailies.
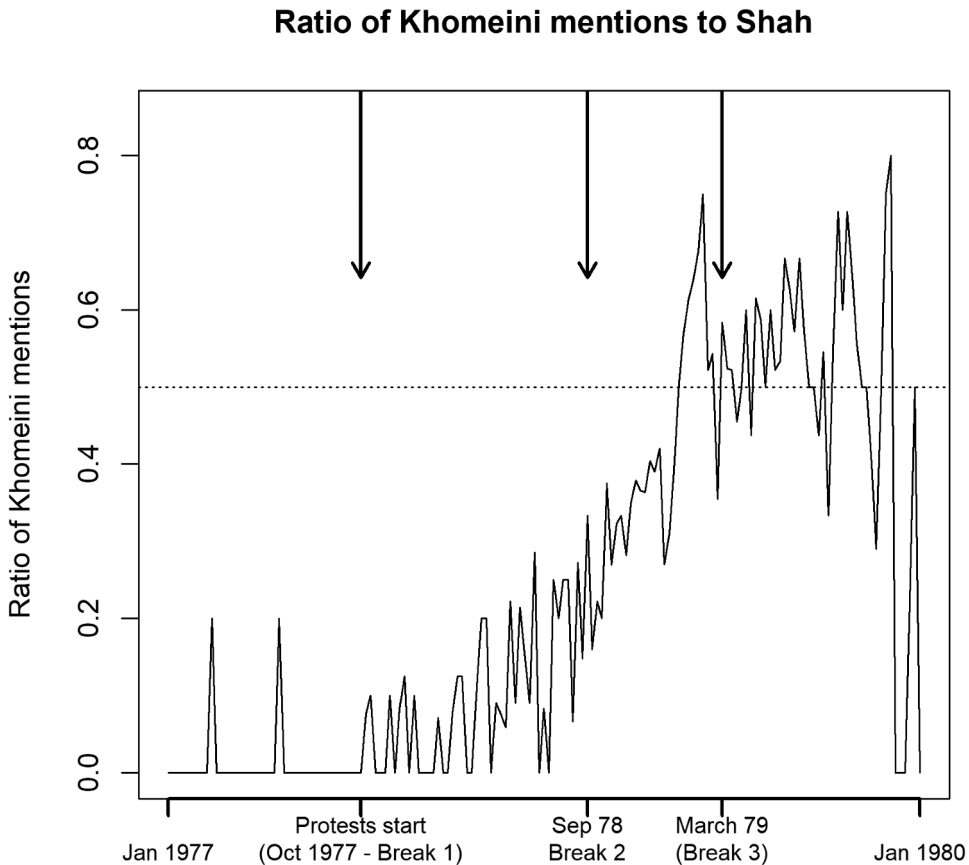
Ratio of Khomeini mentions to Shah

Figure 9. Ratio of Khomeini mentions to Shah mentions across state department political cables. The lines with arrows show the breakpoints identified in the series.

change and the reports went to high-level officials in Washington, it might have been too late to do anything to stop it.

Religious nature of protests. Even if American diplomats responded to the protests by increasing the volume of political reporting, and using language reflective of revolutionary change and increasingly negative sentiment, they might still have failed to appreciate what made the protests truly revolutionary. While the post-hoc analyses are not conclusive, they make a plausible case for why analysts and consumers would miss or misunderstand the role religion would play in the overthrow of the Shah. Religion had played a role in early 1960s protests, but the Shah had been able to easily weather these events. Even when Khomeini emerged as a central figure, and called for the violent overthrow of the Shah, he was still in exile, and therefore did not seem to pose an immediate threat. Moreover, much of the anti-American rhetoric in Iran came from leftist and, especially, communist movements, which would be a central concern for Washington in a country bordering the USSR during the Cold War. Finally, Sullivan writes that, in 1977–78, the religious community had little interest in making contact with the embassy, even when embassy officials made a determined effort.[69]

It is not difficult to find evidence that analysts in Iran early on came to understand the importance of religious fervor and religious leaders, and sought to learn more. In January 1978, for instance, a retrospective analysis of the protests that started in Qom concluded that its significance was to 'ELEVATE RELIGIOUS OPPOSITION TO MORE VISIBLE, SIGNIFICANT POSITION AMONG THOSE WHO

HAVE THUS FAR TAKEN ADVANTAGE OF NEW LIBERALIZATION'. Moreover, the embassy would 'BE ATTEMPTING TO WORK AT INHERENTLY DIFFICULT TASK OF LEARNING MORE ABOUT RELIGIOUS ELEMENTS OF OPPOSITIONIST MOVEMENT, INCLUDING DOCTRINES WHICH ARE CURRENTLY BEING ESPOUSED BY BOTH PROGRESSIVES AND REACTIONARIES'.[70]

Did analysts actually succeed in identifying the man who would emerge as the supreme leader? For that we can calculate the frequency with which they began to refer to Khomeini. This is a tough test, since it is difficult to gauge the relative importance of rival political leaders when events were still unfolding. But it is clear that there was relatively little interest in Khomeini in the reporting from Iran (Figure 7). The coverage was sporadic and mostly disconnected from the political demonstrations. Only in August 1978 do we begin to see a dramatic increase, as the embassy reported on his influence in the unrest in Iran. There was another spike in November 1978 when policymakers seriously considered the possibility that the Shah would be removed from office.

But State Department cables were even slower to pick up on Khomeini's significance, lagging well behind reports from Iran.[71] There were virtually no mentions of Khomeini in cables from Washington or from any other U.S. embassy, department, or agency until October 1978, when he was expelled from Iraq by then-Vice President Saddam Hussein, and moved to Neauphle-le-Château, a suburb of Paris. Even then it was sporadic, and there is no dramatic increase until the Shah went into exile in January. In the same four-month period, Khomeini drew extensive coverage by world media.

The CIA was even slower to recognize Khomeini's importance. As shown in Figure 8, it was not until November 1978 that Khomeini started to show up in the National Intelligence Dailies, and the biggest spike does not occur until the next year. For the CIA, then, Khomeini appeared almost out of nowhere.

But even the State Department long remained focused on the Shah, as indicated by how the ratio of mentions did not shift to Khomeini until after the Shah went into exile. In reading the cables, it is striking how persistently senior U.S. officials continued to look to the Shah as an important ally. The Shah had been in office for more than 25 years by this point, and had come to seem irreplaceable (Figure 9).

Conclusion

We have focused on three ways that intelligence failures can occur. First, analysts can miss signals and fail to report important events and trends. Second, policymakers might fail to react to such reports. Third, an intelligence failure could also occur if the reports do not reflect the severity of new political risks, so severe as to require a fundamental change in policy.

In the Iranian case, we find significant and measurable differences in State Department reporting, which closely tracked the worsening situation in the frequency of communications. The more limited information available from the CIA indicates that Agency analysts lagged behind. The foreign service officers in Iran could have been more insistent on the revolutionary nature of the situation – especially its religious nature – and pressed for a response from senior officials. But even if they had, and even if they were joined by intelligence analysts, the most senior policymakers were paying less attention to Iran during the crucial period, and were clearly slow to react even when they did begin receiving high-level warnings.

To be sure, it is not clear whether the U.S. could have dramatically altered the course of events. U.S. policymakers were unaware of key aspects of the situation, such as how the Shah was seriously ill, which he kept secret from everyone but his doctors. His concern that a more forceful response to protests would jeopardize a future succession shaped his response in ways few understood at the time. Ayatollah Khomeini himself may have been surprised at how the situation unfolded. But a more timely and accurate assessment of the seriousness of the crisis, and the range of possible outcomes, would have allowed policymakers to spend more time preparing, and less time blaming one another.

To understand intelligence failures, a close reading of the historical record on important cases like the Iranian revolution is clearly necessary, but it may not be sufficient. Intelligence reports are often

written in such a way as to hedge bets and avoid blame, and cherry-picked quotations can be used to argue nearly opposite interpretations of the same record. Moreover, fine-grained analyses of a few well-known failures do not allow us to understand intelligence reporting on possible regime change more generally, since we need to identify and analyze different kinds of cases that had different kinds of outcomes. We also need to understand how reporting on potential regime change figures in the larger flow of information going to policymakers, including intelligence that comes from outside the intelligence community.

The approaches demonstrated in this paper were developed to scale to larger analyses that satisfy these criteria. Follow-up work could encompass the numerous coups and revolutions in South America, Europe, Africa, and Asia in the 1970s, as well as the even larger number of cases in which governments did not topple because coups failed or revolutionary unrest fizzled. Such studies would examine the traffic flow and content of communications to identify instances in which reporting reflected or failed to reflect instability, and where policymakers were more or less attentive to these fluctuations.

Some of these methods could also work in real time, and reveal when there is a disconnect in communications to and from embassies, whether in the frequency of reporting on political instability, or the language of these messages. To be sure, this approach may only be helpful in certain situations. But if analysts cannot reliably predict coups and revolutions, it might nevertheless be possible to make intelligence failures more predictable.

Notes

1. Quoted in Bill, *Eagle and Lion*, 259.
2. Jervis, *Why Intelligence Fails*, 26.
3. Wohlstetter, *Pearl Harbor*; Knorr, *Failures in National Intelligence Estimates*; and Betts, *Analysis, War, and Decision*.
4. Garciano and Posner, *Intelligence Failures*; Zegart, *Flawed by Design*; and Zegart, *Spying Blind*.
5. Jervis, *Perception and Misperception*; Jervis, *Why Intelligence Fails*; and Bar-Joseph, *Intelligence Failure and Need for Cognitive Closure*.
6. Gentry, "Intelligence Failure Reframed"; Hedley, "Learning from Intelligence Failures"; and Wirtz, "Art of Intelligence Autopsy."
7. Kent, *Strategic Intelligence*, 9–10.
8. Jervis, *Perception and Misperception*; Jervis, *Why Intelligence Fails*; and Heuer, *Psychology of Intelligence*.
9. Wohlstetter, *Pearl Harbor*.
10. On the tendency of observers to fixate on failures, and not assess how frequently they occur relative to intelligence successes, see Betts, *Analysis, War, and Decision*, 62 Also see Marrin, 'Preventing Intelligence Failure' for ways to improve intelligence reporting, including an examination of analytic successes.
11. Indeed, as Jensen, 'Intelligence Failures' argues, there is a tension between what providers can reasonably provide and what consumers expect. That is, providers of information cannot be expected to be omniscient.
12. Wirtz, "Déjà vu?"; Zegart, *Flawed by Design*; Zegart, *Flying Blind*. Zegart, "September 11".
13. Knorr, *Failures in National Intelligence Estimates*; and Jervis, *Why Intelligence Fails.*
14. Hatlebrekke and Smith, *Towards New Theory of Intelligence Failure*.
15. Tetlock, *Expert Political Judgment*.
16. Eiran, "Three Tensions."
17. Jervis, *Why Intelligence Fails*, 2.
18. Cited in Guerrero, *Carter Administration*, 93.
19. Bill, *Eagle and Lion*, 258.
20. Safire, *Adm. Turner's Failures*.
21. Sullivan, *Mission to Iran*, 203–204.
22. Sullivan, *Mission to Iran*.
23. Sick, *All Fall Down*, 35.
24. Ibid., 66.
25. Nolan and MacEachin, 'Discourse, Dissent, and Strategic Surprise' and Treverton 'Fall of the Shah' argue that the executive strongly discouraged contact with opposition groups, going so far as to punishing individuals who went against the wishes. While Carter and his officials bear the brunt of the blame for the information failure, the evidence that individuals were punished is thin. A bigger issue seems to be that officials relied on opposition groups with whom they were comfortable – middle-class liberals.

26. Brzezinski, *Power and Principle*, 359–360.
27. Ibid.
28. Vance, *Hard Choices*, 325–326.
29. Kitchens, *Crisis and Intelligence*. Also see Nolan and MacEachin, "Discourse, Dissent."
30. Jervis, *Why Intelligence Fails*, 22.
31. Ibid., 41.
32. Bill, *Eagle and Lion*, 243.
33. Guerrero, *Carter Administration*.
34. Daughtery, "Behind the Intelligence Failure."
35. Donovan, "National Intelligence."
36. Bar-Joseph, "Forecasting a Hurricane."
37. see note 23 above.
38. c.f. 1978TEHRAN00389, *SERIOUS RELIGIOUS DISSIDENCE*, which calls it the 'most serious incident of this sort for years.' Subsequent reports describe how it touched off riots in several other cities, and revealed the strength of the conservative religious opposition (1978TEHRAN00665, *MORE REACTION TO QOM DEMONSTRATIONS*; 1978TABRIZ00004, *DEMONSTRATIONS IN TABRIZ*; 1978TEHRAN00961, *RELIGION AND POLITICS*).
39. Sick, *All Fall Down*, 74, 77, 90.
40. We are not the first to use State Department documents to study intelligence failures. Karam, 'Missing Revolution' uses State Department cables to understand the failure of U.S. intelligence to anticipate the 1958 Iraqi revolution.
41. We use 'communications' when referring to all documents we analyze based on metadata which includes documents delivered by diplomatic pouch and still-classified cables (which are missing text). 'Cables' refers to the subset of documents for which we have the full message text, i.e., declassified cables. They are called cables because these time-sensitive communications were originally transmitted by telegraphic cables.
42. Jervis, *Why Intelligence Fails.*
43. Sick: communication with authors.
44. Grimmer and Stewart, "Text as Data,"s 271
45. 1978TEHRAN07242, *MORE ON RECENT RIOTS*; 1978TEHRAN07882, *IRAN*.
46. Using Bai and Perron, *Critical Values.*
47. Rasler, *Concessions, Repression, and Political Protest*. Rasler no longer had the original demonstration data so we reconstructed the number of demonstrations from the graph in her 1996 article. The date range she mentions in the text should have 63 weeks but there are only 57 points on the graph. We assume the end point of Wednesday 14 February 1979 is correct and start the data as of Thursday January 12th, 1978.
48. TAGs were assigned to each communications by the people who wrote the cable. Political TAGs include all subject TAGS that began with the letter 'P'.
49. Incoming cables include any of the following words or phrases {'REVOLUTION', 'POLITICAL UNREST', 'DEMONSTRATION', 'POLITICAL CHANGE', 'COUP'}.
50. Incoming cables include any of the following words {'KHOMEINI', 'RUHOLLAH', 'TUDEH', 'COMMUNIST', 'COMMUNISM'}.
51. Because we are dealing with time-series data, we must ensure that all of our series are stationary before making inferences from regressions. That is, we require the mean and variance of the series to be constant over time. Using Augmented Dickey Fuller and Phillips-Perron tests we find that, for all four State Department series, this is not the case. As is standard, we make the series stationary by differencing it, and then apply an ARIMA model to determine whether cables from Iran varied based on the number of demonstrations. The I in ARIMA deals with non-stationary series while the AR part accounts for auto-correlation. Once we difference the data, the auto-correlation for all four series becomes negative and significant, which suggests that we should not account for an AR term in the model. Instead, we include a 1 period moving average to the model. Our basic ARIMA model is then of order (0,1,1).We also use the auto.arima() function from the R forecast library which suggests the same set of models. The exception is that auto.arima() suggests a model of order(1,1,2) for the Khomeini and Tudeh mentions. The demonstrations variable is insignificant in either model so for ease of presentation we report the order(0,1,1) results.
52. In Appendix Table A1 we show the same analysis using the total number of words in the cables rather than the number of communications. Demonstrations continue to have a significant effect on all reporting and on Political communications.
53. We see a similar pattern when using t-tests. The one difference is that the ratio between Iran and non-Iran communications during the first period is not significant with a t-test.
54. Specifically, we look at the Alexandria, Cairo, Jerusalem, and Tel Aviv embassies.
55. The t-test results show a similar pattern as the KS-test results. The first and third periods have significant differences, but there is no difference in the second period.
56. 1978TEHRAN03892, *GOI DISCOURAGEMENT OF DISSIDENT POLITICAL ACTION*; 1978STATE110017, *GOI DISCOURAGEMENT OF DISSIDENT POLITICAL ACTION*.

57. 1978TEHRAN04582, *GOI DISCOURAGEMENT OF DISSIDENT POLITICAL ACTION*; 1978TEHRAN05390, *DISCUSSION WITH SHAH*.
58. 1978TEHRAN08217, *RECOMMENDATION FOR PRESIDENT*.
59. Seliktar, *Failing Crystal Ball Test*.
60. 1978TEHRAN09431, *IRANIAN PERMRE TO UNITED NATIONS URGES*.
61. 1978STATE231682, *SAVAK*.
62. Jervis, *Why Intelligence Fails*, 19–20.
63. Guerrero, *Carter Administration*, 74.
64. Jervis, *Why Intelligence Fails*, 39.
65. Sick communication with authors.
66. For this purpose, we used a standard dictionary courtesy of software provided by Benoit, *quanteda*.
67. 1978STATE283811, *MESSAGE TO FOREIGN MINISTER*.
68. 1978TEHRAN10962, *MESSAGE TO FOREIGN MINISTER GENSCHER*.
69. See note 22 above.
70. 1978TEHRAN00961, *RELIGION AND POLITICS*.
71. The figure focuses on communications to and from Iranian embassies and consulates. We also looked at Khomeini mentions to and from all U.S. embassies and consulates. Until the beginning of 1979, almost all communications mentioning Khomeini are from or to an Iranian location. At this point, most of the mentions come from outside Iran culminating in a very large number of Khomeini mentions from outside Iran during the Hostage Crisis.

Disclosure statement

Funding

Notes on contributors

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Bibliography

1978STATE110017. "Goi Discouragement of Dissident Political Action." State Department Central Foreign Policy Files. http://www.history-lab.org

1978STATE231682. "SAVAK." State Department Central Foreign Policy Files. http://www.history-lab.org

1978STATE283811. "Message to Foreign Minister." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TABRIZ00004. "Demonstrations in Tabriz." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN00389. "Serious Religious Dissidence in Qom." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN00665. "More Reaction to Qom Demonstrations." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN00961. "Religion and Politics: Qom and Its Aftermath." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN03892. "Goi Discouragement of Dissident Political Action." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN04582. "Goi Discouragement of Dissident Political Action." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN05390. "Discussion with Shah on Iran\'s Domestic Problems." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN07242. "More on Recent Riots." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN07882. "Iran: Where are We Now and Where are We Going?" State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN08217. "Recommndation for President to Shah Letter." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN09431. "Iranian Permre to United Nations Urges Usg Role in Iranian Crisis." State Department Central Foreign Policy Files. http://www.history-lab.org

1978TEHRAN10962. "Message to Foreign Minister Genscher." State Department Central Foreign Policy Files. http://www.history-lab.org

Bai, J., and P. Perron. "Critical Values for Multiple Structural Change Tests." *The Econometrics Journal* 6, no. 1 (2003): 72–78. doi:10.1111/1368-423X.00102.

Bar-Joseph, U. "Intelligence Failure and the Need for Cognitive Closure: The Case of Yom Kippur." In *The Paradox of Intelligence: Essays in Honor of Michael I. Handel*, edited by R. K. Betts and T. Mahnken, 166–189. London: Frank Cass, 2003.

Bar-Joseph, U. "Forecasting a Hurricane: Israeli and American Estimations of the Khomeini Revolution." *Journal of Strategic Studies* 36, no. 5 (2013): 718–742. doi:10.1080/01402390.2012.742009.

Benoit, K., K. Watanabe, H. Wang, P. Nulty, A. Obeng, S. Müller, A. Matsuo, et al. "Quanteda: An R Package for the Quantitative Analysis of Textual Data." *Journal of Open Source Software* 3, no. 30 (2018): 774. doi:10.21105/joss.00774.

Betts, R. K. "Analysis, War, and Decision: Why Intelligence Failures are Inevitable." *World Politics* 31, no. 1 (1978): 61–89. doi:10.2307/2009967.

Bill, J. *The Eagle and the Lion*. New Haven: Yale University Press, 1998.

Brzezinski, Z. *Power and Principle: Memoirs of the National Security Adviser, 1977-1981*. New York: Farrar, Straus & Giroux, 1983.

Daughtery, W. J. "Behind the Intelligence Failure in Iran." *International Journal of Intelligence and Counterintelligence* 14 (2001): 449–484. doi:10.1080/08850600152617119.

Donovan, M. "National Intelligence and the Iranian Revolution." *Intelligence and National Security* 12, no. 1 (1997): 143–163. doi:10.1080/02684529708432403.

Eiran, E. "The Three Tensions of Investigating Intelligence Failures." *Intelligence and National Security* 31, no. 4 (2016): 598–618. doi:10.1080/02684527.2015.1044293.

Garicano, L., and R. A. Posner. "Intelligence Failures: An Organizational Economics Perspective." *Journal of Economic Perspectives* 19, no. 4 (2005): 151–170. doi:10.1257/089533005775196723.

Gentry, J. A. "Intelligence Failure Reframed." *Political Science Quarterly* 123, no. 2 (2008): 247–270. doi:10.1002/j.1538-165X.2008.tb00624.x.

Grimmer, J., and B. M. Stewart. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis* 21, no. 3 (2013): 267–297. doi:10.1093/pan/mps028.

Guerrero, J. G. *The Carter Administration and the Fall of Iran's Pahlavi Dynasty: US-Iran Relations on the Brink of the 1979 Revolution*. New York: Springer, 2016.

Hatlebrekke, K. A., and M. L. R. Smith. "Towards a New Theory of Intelligence Failure? The Impact of Cognitive Closure and Discourse Failure." *Intelligence and National Security* 25, no. 2 (2010): 147–182. doi:10.1080/02684527.2010.489274.

Hedley, J. H. "Learning from Intelligence Failures." *International Journal of Intelligence and Counterintelligence* 18, no. 3 (2005): 435–450. doi:10.1080/08850600590945416.

Jensen, M. A. "Intelligence Failures: What are They Really and What Do We Do about Them?" *Intelligence and National Security* 27, no. 2 (2012): 261–282. doi:10.1080/02684527.2012.661646.

Jervis, R. *Perception and Misperception in International Politics*. Princeton: Princeton University Press, 1976.

Jervis, R. *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War*. Ithaca: Cornell University Press, 2010.

Jr., H., and J. Richards. *Psychology of Intelligence Analysis*. Washington, DC: Center for the Study of Intelligence, 1999.

Karam, J. G. "Missing Revolution: The American Intelligence Failure in Iraq, 1958." *Intelligence and National Security* 32, no. 6 (2017): 693–709. doi:10.1080/02684527.2016.1275138.

Kent, S. *Strategic Intelligence for American World Policy*. Princeton: Princeton University Press, 1966.

Kitchens, A. H. "Crisis and Intelligence: Two Case Studies (Tet and Iran)." *Studies in Intelligence* 28, no. 3 (1984): 71–78. https://catalog.archives.gov/id/7283168 .

Knorr, K. "Failures in National Intelligence Estimates: The Case of the Cuban Missiles." *World Politics* 16, no. 3 (1964): 455–467. doi:10.2307/2009582.

Marrin, S. "Preventing Intelligence Failures by Learning from the Past." *International Journal of Intelligence and Counterintelligence* 17, no. 4 (2004): 655–672. doi:10.1080/08850600490496452.

Rasler, K. "Concessions, Repression, and Political Protest in the Iranian Revolution." *American Sociological Review* 61, no. 1 (1996): 132–152. doi:10.2307/2096410.

Safire, W. 1978. "Adm. Turner's Failures." *New York Times*, November 23, 1978.

Seliktar, O. *Failing the Crystal Ball Test: The Carter Administration and the Fundamentalist Revolution in Iran*. Westport, Conn: Praeger, 2000.

Shirley, Edward (psudonym). 1997. "Know Thine Enemy: A Spy's Journey into Revolutionary Iran INCLUDEPICTURE." * MERGEFORMATINET. New York: Farrar, Straus, and Giroux. https://www.assoc-amazon.com/e/ir?t=thneyoreofbo-20&l=as2&o=1&a=0813335884

Shirley, Edward (psudonym). February 1998. "Can't Anybody Here Play This Game?" *The Atlantic Monthly*. https://www.theatlantic.com/magazine/archive/1998/02/cant-anybody-here-play-this-game/377052/

Sick, G. *All Fall Down: America's Fateful Encounter With Iran*. New York: I.B. Tauris, 1985.

Sullivan, W. *Mission to Iran*. New York: W.W. Norton, 1981.

Tetlock, P. E. *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton, NJ: Princeton University Press, 2005.

United States Department of State. 1978. "Political Reporting." https://search.proquest.com/docview/1679096813?accountid=10226

Vance, C. *Hard Choices: Four Critical Years in Managing America's Foreign Policy*. New York: Simon and Schuster, 1983.

Wirtz, J. J. "Déjà Vu? Comparing Pearl Harbor and September 11." Harvard International Review 24 no. 3 (Fall 2002): 73–77

Wirtz, J. J. "The Art of the Intelligence Autopsy." *Intelligence and National Security* 29, no. 1 (2014): 1–18. doi:10.1080/02684527.2012.748371.

Wohlstetter, R. *Pearl Harbor: Warning and Decision*. Stanford: Stanford University Press, 1962.

Zegart, A. *Flawed by Design: The Evolution of the CIA, JCS, and NSC*. Stanford: Stanford University Press, 1999.

Zegart, A. "September 11 and the Adaptation Failure of U.S. Intelligence Agencies." *International Security* 29, no. 4 (2005): 78–111. doi:10.1162/isec.2005.29.4.78.

Zegart, A. *Spying Blind: The CIA, the FBI, and Origins of 9/11*. Princeton: Princeton University Press, 2007.

Appendix

Another way we can examine this hypothesis is by measuring the responsiveness of political reporting in terms of total words instead of the number of cables. As the number of protests increased, analysts often attempted to

summarize the situation from cities across the country. A series of seven protests in different cities on one day, in other words, might all have been mentioned in one cable that describes the happenings in each location rather than seven different cables. Demonstrations have a positive and significant effect on the first 2 dependent variables, but not on cables containing language related to unrest or on State Department reports mentioning Khomeini or the Tudeh. Again we see the strongest effect of demonstrations on P-TAG reports. Because the dependent variable is logged to see the effect of demonstrations, we need to exponentiate its coefficient, which will then tell us the percentage change in words when demonstrations increase. Looking at all cables from Iran, each additional demonstration increases its length by an average of 61 words. An additional demonstration would increase the length of a P-TAG report by 44 words.
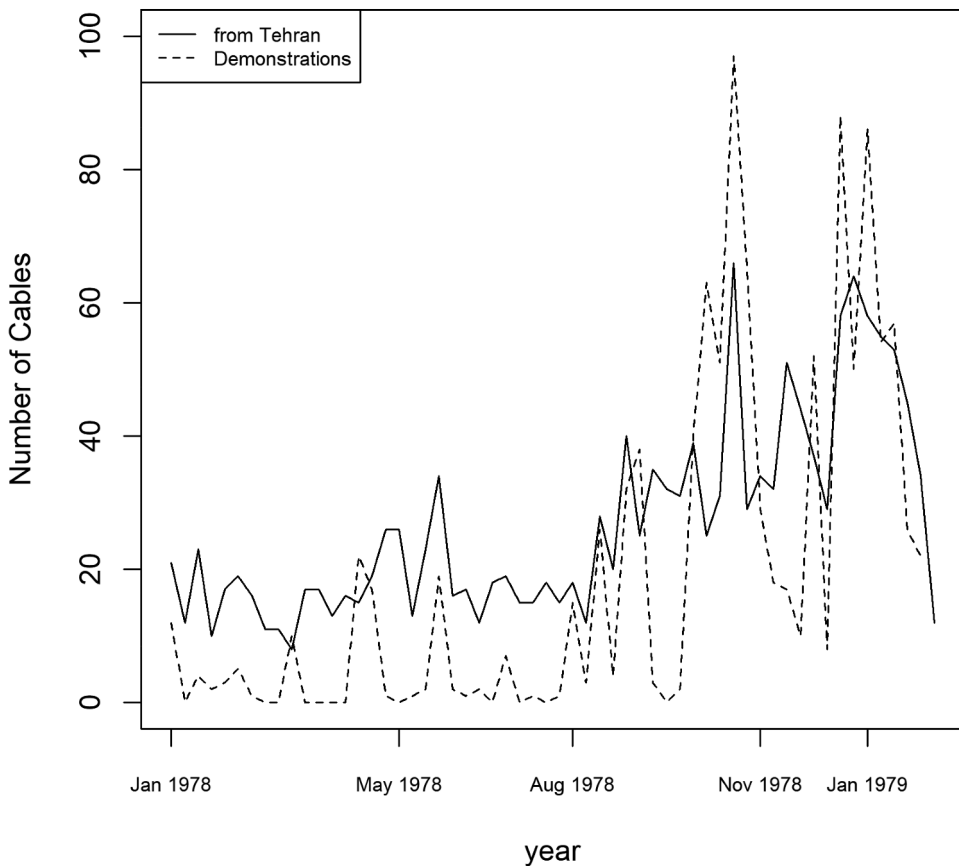

Figure A1. Political cables from Iran and demonstrations.

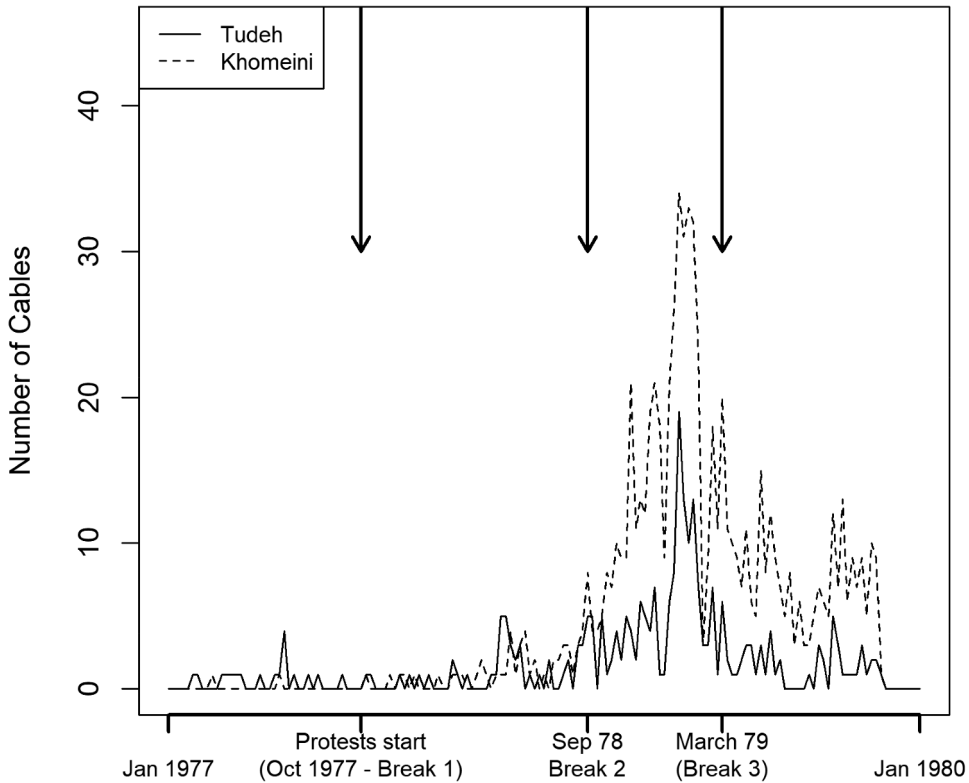# Political Cables from Iran: Tudeh and Khomeini

Figure A2. Tudeh and Khomeini mentions in political cables from Iran. It is only after the second breakpoint that the embassy begins to pay more attention to Khomeini than to the communists, reflecting the slowness with which Americans in Iran shifted focus to what turned out to be the main threat to the regime.

Table A1. Results from ARIMA(0,1,1) regressions (text length).

	Dependent variable: Number of words			
	All Incoming	Political	Revolution	Khomeini/Tudeh
	3706 cables	1516 cables	403 cables	114 cables
MA(1)	−0.646***	−0.677***	−0.547***	−0.557***
	(0.084)	(0.084)	(0.116)	(0.116)
Demonstrations	60.788**	43.584**	17.676	4.352
	(26.491)	(21.579)	(13.135)	(10.633)
Observations	55	55	55	55
Log-likelihood	−532.637	−521.461	−494.114	−480.155
σ^2(in millions)	14.961	9.951	3.698	2.226
Akaike Inf. Crit.	1,071.275	1,048.923	994.228	966.310

*p < 0.1; **p < 0.05; ***p < 0.01