How narratives and evidence influence rumor belief in conflict zones: Evidence from Syria

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Abstract: Armed conflict creates a context of high uncertainty and risk, where accurate and verifiable information is extremely difficult to find. This is a prime environment for unverified information—rumors—to spread. Meanwhile, there is insufficient understanding of exactly how rumor transmission occurs within conflict zones. I address this with an examination of the mechanisms through which people evaluate new information. Building on findings from research on motivated reasoning, I argue that elite-driven narrative contests—competitions between elites to define how civilians should understand conflict—increase the difficulty of distinguishing fact from fiction. Civilians respond by attempting thorough evaluations of new information that they hope will allow them to distinguish evidence from narratives. These evaluations tend to involve some combination of self-evaluation, evaluation of the source, and collective sense-making. I examine this argument using over 200 interviews with Syrian refugees conducted in Jordan and Turkey. My findings indicate that people are usually unable to effectively distinguish evidence from narratives, so narrative contests are powerful drivers of rumor evaluation. Still, civilian mechanisms of rumor evaluation do constrain what propaganda elites can spread. These findings contribute to research on civil war, narrative formation, and information diffusion.

Introduction

On a Friday in August 2012 in a Damascus suburb called Bloudan, Mohamed's father went to the mosque while Mohamed went to school. While his father was at the mosque, men began to share information with each other. Apparently, the government military, the Syrian Arab Army (SAA), was going to attack Bloudan from its base in Zabadani. Upon hearing this information, Mohamed's father had to evaluate it. He knew that information was circulating about all kinds of armed group activities. Rumors were running rampant. Some information was true. Other information was false. It was hard to tell the difference. Still, this information about the government's planned offensive from Zabadani made sense. While large numbers of civilians would be killed, that consideration had clearly not stopped the SAA from the brutal steps it had already taken to deal with its opposition. Mohamed's father was secular and opposed the government, which led him to believe the narrative of the secular opposition, led by the Free Syrian Army (FSA) at the time. Through the lens of this narrative, Mohamed's father believed what he heard about the planned SAA offensive and had his family in Lebanon within 24 hours. Eventually, Mohamed's family realized that the planned military offensive had been a false rumor. It never happened.

This story illustrates several important dynamics, with numerous implicit or explicit probability-utility calculations. Conflict settings are highly uncertain and dangerous. Civilians need information about ongoing events and battles in order to survive and pursue an economic livelihood. This information is often difficult to verify, so civilians must respond to unverified information. When civilians encounter new unverified information, it is extremely difficult for them to evaluate that new information. In addition, there are substantial risks in both believing and not believing that information (Bhavnani, Findley & Kuklinski, 2009; Greenhill &

Oppenheim, 2017). If Mohamed had not believed the new information he encountered about a planned government offensive, then his family likely would have stayed longer (Schon, 2019). They would have risked becoming victims of violence. At the same time, Mohamed also knew that there were risks in believing the information and leaving. Movement can be very dangerous, since it exposes people to the possibility of becoming targets of violence as they move (Schon, 2016).

Adding complexity to this situation, believing new information has potential benefits as well. True or false, unverified information could still protect people from perceived threat (Allport & Postman, 1947; McGahern, 2016). While the expected SAA offensive did not happen, Mohamed's family did avoid the conflict escalation in late 2012 and 2013. In this sense, false information could serve a valuable purpose of finding meaning amidst complexity and confusion, as opposed to strict fact-finding (Kapferer, 1990; Shibutani, 1966). False information could also become a self-fulfilling prophecy, since it could spark reactions that lead to the kind of violence that the original information had warned about in the first place (Horowitz, 2001). All of this complexity raises the question: Why do civilians believe some pieces of unverified information and not others?

Unverified information can be broken down into three main types of information: rumors, conspiracy theories, and propaganda. My analysis applies primarily to rumors. I define and explain the concept of rumors in the next section, but it is worthwhile to first clarify the difference between rumors, propaganda, and conspiracy theories. Unlike propaganda, which can typically be attributed to a specific author, rumors cannot be attributed to a specific source (Fine, 1992; Fine & Ellis, 2010). Elites may intentionally allow propaganda to evolve as it shifts from its macro-level formation down to localized dissemination (Shesterinina, 2016), but propaganda

could still be traced back to its authors and "fire-tenders" (Brass, 1997). Furthermore, rumors are defined not only by the characteristics of the information, but by the goals of the recipient. Specifically, rumors include the goal of making sense of complex events. They are not strictly about fact-finding, but they do involve a desire to increase understanding (Kapferer, 1990). This differentiates rumors from conspiracy theories, which are more concerned with identifying powerful actors that are responsible for something (Dentith, 2014; Nyhan & Zeitzoff, 2018).

My argument for why people believe some rumors and not others is based on how people evaluate rumors in conflict settings. I apply the motivated reasoning framework (Kunda, 1990). This contends that in the absence of evidence, people will adopt rumors if they are consistent with prior narratives. With evidence, people are likely to believe rumors, regardless of whether they are consistent with existing narratives. Rather than disputing explanations that focus on the role of trusted sources or group dynamics, I argue that different social relationships can expose people to different narratives and pieces of information. Then, social relationships can inform perceptions of credibility of new information for its recipients.

While it is often difficult to distinguish evidence from narratives, the high uncertainty of conflict settings makes this problem particularly severe (Schelling, 1981). Elites also have particularly large incentives to manipulate the information that civilians believe (Brubaker & Laitin, 1998). They engage in what I label a *narrative contest* in order to convince civilians to believe their particular narrative. This requires elites to construct narratives that are plausible enough for civilians to believe them, otherwise civilians can and do shift their support to actors that do construct plausible narratives (Benford & Snow, 2000; Christia, 2012). If elites can win the narrative contest, then they can win greater support and more successfully encourage civilians to collaborate with them (Kalyvas, 2006).

Civilians, meanwhile, recognize that elites are engaging in a narrative contest. They evaluate rumors through motivated reasoning, but the political narrative contest often motivates them to attempt especially thorough rumor evaluation. Civilians may evaluate rumors independently through self-evaluation, but social processes of rumor evaluation—evaluation of the source and "collective sense-making"—are especially important in conflict settings (Lubkemann, 2008; Shibutani, 1966). During these evaluation processes, civilians work hard to distinguish fact from fiction and evidence from narratives. They are not always successful, but they are able to ensure that elites cannot just fabricate any narrative that they want regardless of existing and accessible evidence. I therefore build upon recent work emphasizing the role of social networks, especially co-ethnic ties, in rumor diffusion by adding consideration of narrative contests (Larson & Lewis, 2018). This highlights that rumor diffusion is a product of both social network and narrative dynamics.

Evidence for my argument comes from over 200 interviews with Syrian refugees in Turkey and Jordan. Turkey hosts the largest number of Syrian refugees, and Jordan hosts the third largest amount of Syrian refugees. This makes refugees in these two countries a valuable resource to understand conflict dynamics in Syria (Pearlman, 2016; Schon, 2019). It is also a pragmatic case for analysis because its relatively recent onset in 2011 meant that respondents were still able to recall precise and detailed information.

I find data that is consistent with my argument that motivated reasoning explains civilian rumor evaluation within conflict zones. In addition, I show that this motivated reasoning process occurs through three channels, which can occur either separately or in various combinations: self-evaluation, evaluation of the source, and collective sense-making. These findings highlight that even when social processes drive rumor belief, it is not an automatic process. There is

almost always a combination of evaluations of the nature of the information and the characteristics of its source. Therefore, explanations that emphasize factors such as the importance of trusted sources or co-ethnics are capturing important pieces of the story, but they are incomplete on their own. Likewise, explanations of rumor belief that treat it as a purely cognitive process are also missing critical factors.

I therefore contribute to existing research in several ways. For starters, I add data collected from people who have lived in conflict zones, thereby building on efforts from Knopf (1975) and Greenhill and Oppenheim (2017) to analyze rumor dynamics beyond laboratory settings and American politics. For rumor research, I explicitly apply motivated reasoning to explain rumor evaluation and articulate three possible methods that civilians may use to evaluate rumors. For conflict research, I add to a research area that is showing the importance of considering how rumor transmission occurs within conflict settings. Furthermore, my discussion of social network and narrative dynamics builds on a growing body of research that emphasizes the importance of analyzing social processes, not just violent processes, during armed conflict (Arjona, 2016; Hoffman, 2011; Lubkemann, 2008).

This paper proceeds as follows. First, I define rumors. Second, I apply motivated reasoning to explain how rumor evaluation and belief occurs. Third, I describe elite-driven narrative contests and discuss why they matter. Fourth, I discuss my interviews with Syrian refugees. Fifth, I describe how I gathered data about conflict rumors in Syria. The appendix goes into detail on the interviews and gathering data on rumors, but in the main text I provide the big picture. Sixth, I analyze narrative contests in Syria. Seventh, I present my results on how Syrian civilians evaluate rumors. Eighth, I discuss the implications of my results for how civilian rumor

evaluation reduces elite control of which information civilians believe. Ninth, I conclude with a summary of my findings and suggestions for future research.

Defining rumors

Many definitions of rumors exist, so it is necessary to specify one single concrete definition. I conceive of rumor as a specific type of innovation (Rogers, 1962). This connection of rumors with innovations emphasizes the parallels between choices of whether to believe, or adopt, rumors and whether to adopt other innovations like new technology. Across types of innovations, people face choices with varying degrees of uncertainty. They also often seek to combine individual judgement with learning from members of their social networks. Rumors fall into a subset of innovations that place risks on both adopting and not adopting the innovation. In Mohamed's example from the opening of this paper, believing the rumor of an impending military offensive may help a household find safety or it may motivate an unnecessary move that exposes the household to unnecessary risk during and after migration. Dismissing the rumor may help the household avoid unnecessary risk, but it may also lead the household to not respond to danger when it should have responded.

Rumor as an innovation includes two components: the information and the action. The information component is "a specific (or topical) proposition for belief, passed along from person to person, usually by word of mouth, without secure standards of evidence being present" (Allport & Postman, 1947: p. ix). In simple terms, rumors are a type of unverified information. They can be true or false. As in Allport and Postman's definition, rumors are often associated with the word of mouth method of communication, but they can also spread via radio, television, social media, or other mediums.

The action component is a "recurrent form of communication through which men caught together in an ambiguous situation attempt to construct a meaningful interpretation of it by pooling their intellectual resources" (Shibutani, 1966: , p. 17). As with innovation adoption, this action component includes individual and peer effects (Rogers, 1962). Individuals make their own choices about whether to believe rumors. Those choices, though, are influenced by peers (Alatas et al., 2016; Ferrali et al., 2018). I will categorize rumor evaluation methods as self-evaluation, evaluation of the source, and collective sense-making. Different individuals may employ different combinations of these processes. Rather than employ econometric methods to attempt an identification of one primary process, I describe how several processes operate.

How motivated reasoning drives rumor evaluation

Recent rumor research has made substantial progress in explaining factors that are correlated with whether people believe rumors (Greenhill & Oppenheim, 2017), but it gives minimal attention to the process of rumor evaluation. One parsimonious view of rumor evaluation is informed by Bayesianism, where new information either confirms prior beliefs or contradicts those prior beliefs. When the new information contradicts the prior beliefs, people update their beliefs and form new beliefs (Bullock, 2009; Chen, Lu & Suen, 2016). Bayesianism, however, does not offer guidance on how to consider the roles of evidence, narratives, and factual beliefs in the evaluation process. Motivated reasoning research provides this guidance, so I argue that it contains the best framework to outline a process of rumor evaluation. This process yields two scenarios of rumor belief, as shown in the figure below.

Figure 1: The process of rumor evaluation through motivated reasoning
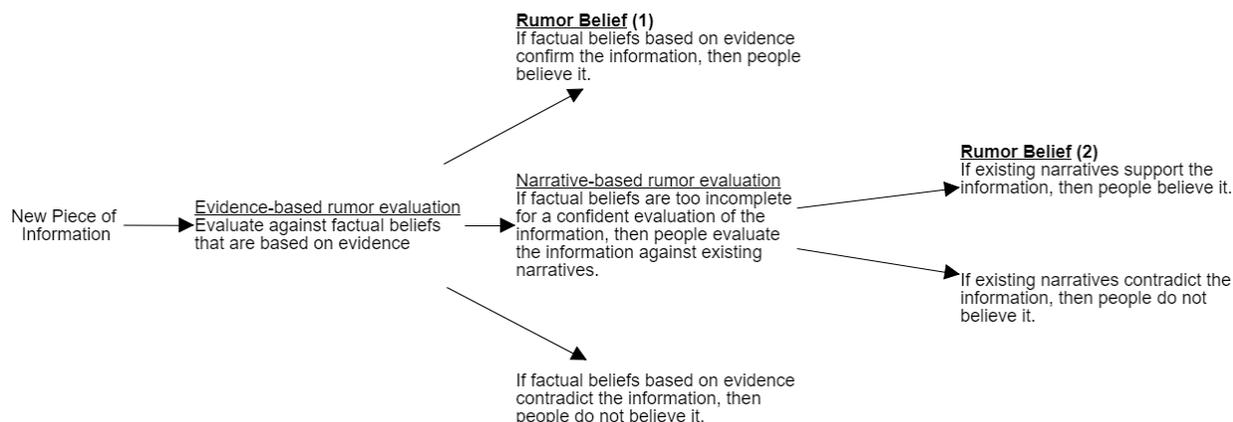
The motivated reasoning research program examines how evidence and narratives combine to influence the evaluation of new pieces of information (Kunda, 1990). There are several key insights. First, people often believe false information (Nyhan & Reifler, 2010). This may be unintentional due to a lack of information or uncertainty about which information to believe. It can also be driven by an elevated skepticism toward information that is not congruent with the narrative that someone believes. Second, people may disproportionately search for narrative-congruent information to reinforce the narratives that they believe. This may restrict people to encounter specific subsets of existing information. If they do encounter information that contradicts their preferred narrative, then people may use extra energy to argue against it (Redlawsk, 2002). Third, people are resistant to changing their narratives even when their factual beliefs change (Nyhan et al., Forthcoming).

In this process of rumor evaluation through motivated reasoning, I assume that people begin by encountering a new piece of information. When they encounter new information, people begin by evaluating it against their factual beliefs—what they already think is true (Silverman, 2018). People base their factual beliefs as much as they can on the evidence that is available to them. If factual beliefs confirm the new information, then people believe the

information and it becomes a new factual belief. This is scenario 1 of rumor belief. If existing

factual beliefs contradict the new information, then people do not believe it. Here, people are

aware and generally expect that information may be manipulated or false. People perceive

evidence, on the other hand, as a reliable indicator of whether a given piece of information is true

or false that cannot be manipulated.

In this way, existing factual beliefs constrain elite influence over rumor belief

(Silverman, 2018). Elites cannot convince people to believe any random piece of information.

Many pieces of information are unlikely to spread among civilian populations. Divisive ethnic

rhetoric, despite suspicions to the contrary (Horowitz, 2001), does not increase the likelihood

that information will spread (Horowitz & Klaus, 2018). The information has to fit existing

narratives and not contradict known facts (Kaufman, 2001). If people find evidence that is

consistent with elite-driven narratives, then elites can easily influence rumor belief.

Some contexts, such as armed conflict, produce so much uncertainty that factual beliefs

are severely incomplete (Shibutani, 1966). Facing uncertainty, people shift from evidence-based

rumor evaluation to narrative-based rumor evaluation. Narratives tell stories that provide broad

understandings (Olsen, 2014). They are therefore aggregations of many pieces of information,

with a story that links them all together in order to fill in gaps in factual beliefs and add

interpretation. Here, rumor belief is based on whether the new information is consistent with

existing narratives. If the information is consistent with existing narratives, then scenario 2 of

rumor belief occurs.

Evidence-based rumor evaluation and narrative-based rumor evaluation thereby combine

into a larger evaluation process. In this process, civilians are attempting to understand ongoing

events and obtain information. This helps them survive during armed conflict (Jose & Medie,

2015). Elites, on the other hand, often have their own interests that may motivate them to facilitate the spread of rumors that will incite violence (Bhavnani, Findley & Kuklinski, 2009). They pursue this aim by manipulating narratives (Brubaker & Laitin, 1998).

Motivated reasoning therefore accounts for the power of narratives in shaping the information that people believe. Yet, motivated reasoning is too often simplified to the assumption that all information is evaluated against narratives. I argue that narratives explain whether most information is believed, but they do not explain whether all information is believed. This is a crucial clarification for motivated reasoning. Narratives matter most, but not entirely. If narratives were all that mattered, then leaders could make up anything they wanted. Instead, leaders have to stick with information that is sufficiently plausible for people to believe.

Elite-driven rumor evaluation through narrative contests

While civilians want to use evidence-based rumor evaluation, they may struggle to distinguish between evidence and narratives. This allows elites to influence civilian rumor evaluation. Since narratives include a collection of factual beliefs, rumors that contradict narratives may appear to be false (Olsen, 2014; Silverman, 2018). Amidst this confusion, elites can exploit narratives to influence rumor belief and the resultant diffusion of rumor.

Elites are unable to directly select which rumors spread. Instead, elite-driven explanations of rumor belief contend that elites manipulate narratives to shape worldviews and beliefs that are favorable to them (Berinsky, 2017; Greenhill & Oppenheim, 2017; Knopf, 1975). This includes manipulating the severity of threat perceptions (Bhavnani, Findley & Kuklinski, 2009; Brass, 1997; Horowitz, 2001). The elite view places elites in control of which rumors spread. With this control, elites may become more successful in spreading wildly exaggerated information than information that is plausible based on existing evidence (Horowitz, 2001; Shibutani, 1966).

Narratives can be defined as discrete stories. They can be personal stories about an individual's experiences, or they can be broader stories about how one side in a dispute understands events (Olsen, 2014). Narratives are dynamic, interactive sources of contention between political actors (Benford & Snow, 2000). Beyond the tangible dispute over territory, state control, or any other issue, actors fight over the very meaning of the contention itself (Brubaker & Laitin, 1998; Donald Horowitz, 1991). This struggle, which I will refer to as a *narrative contest*, includes framing and "counter-framing" efforts between opposing sides (Benford, 1987; Ryan, 1991). This is a contentious process because the winner gets to define how civilians interpret new pieces of information (Benford & Snow, 2000; Mische, 2003; Shesterinina, 2016; Steinberg, 1998; 1999).

Narrative contests are not only rhetorical. Actors often take deliberate actions to respond to the expected counter-narratives of their opponents. Zuo and Benford (1995) observed that Chinese citizens in 1989 perceived that student activists were relatively more consistent between their public framings and behavior at Tiananmen Square than state elites. This arguably contributed to the rapid mass mobilization that took place. Johnson (1997) examined pro-life group Operation Rescue and found that a mismatch between the group's claims of using non-violent direct action and their tactical actions was responsible for preventing the group from receiving more support. During civil war in Uganda, Lewis (2017) explains how Uganda People's Army (UPA) rebels actively used propaganda to create a narrative that the ruling government party, the National Resistance Movement (NRM), aided cattle raids in the Teso area of Uganda during the late 1980s. This narrative, despite limited supporting evidence, prompted an increase in anti-government sentiment (Lewis, 2017: p. 1432).

As symbolic politics theory contends, narratives and counter-narratives play a powerful role in cementing divides between groups and motivating animosity (Grigorian & Kaufman, 2007; Kaufman, 2001; 2006; 2015). The *narrative contest* also helps explain division along group lines in a wide variety of contexts, such as apartheid South Africa (Fine, 1992), post-apartheid South Africa (Holmes, 2015), and race riots in Detroit (Knopf, 1975).

Interviews with Syrian refugees

To examine my argument, I collected data from interviews with Syrian refugees. The Syrian civil war is an important case in which to study rumor dynamics. Individuals considering new information in this case face high risk and uncertainty about ongoing and future events. The risks and dangers create demand for accurate information, but enormous uncertainty makes it difficult to know which information to believe. Individuals may then be more likely to use social mechanisms to help evaluate new information. Yet, the highly polarized networks along sectarian and political lines that have formed during the civil war create their own challenges. Information is likely to flow within, not across, personal networks of people who share group identities and political views. Furthermore, Syria's highly repressive context could deter people from sharing information in group settings where "collective sense-making" could occur (Pearlman, 2016; 2017; Wedeen, 1999). All told, the Syrian civil war creates demand for new information, including rumors, but it also creates substantial drawbacks to self-evaluation (confusion and higher risk of inaccurate evaluation), evaluation of the source (high distrust of anyone who does not share group identity and political views), and collective sense-making (perceived risk of detection by enemy informants) as mechanisms of evaluating information. There is not one unequivocally best option for rumor evaluation.

My data comes from several research trips. Interviews in Arabic were conducted with the assistance of an interpreter. From July-August 2014, I interviewed Syrian refugees in Jordan. Then, I travelled to Turkey for a preliminary visit December 2015-January 2016 and then a longer period from July-November 2016. In total, I interviewed 35 Syrian refugees in Jordan and 179 in Turkey. While in Jordan, I revised my questionnaire substantially and allowed respondents more freedom to drive conversations towards topics that were of interest to them. In Turkey, on the other hand, I had used my experience and prior insights to develop a more polished questionnaire. This motivated me to stick more strictly to my questionnaire and keep interviews structured. I am therefore able to draw insights from the interviews I conducted in Jordan, but I only include descriptive statistics in the main text and Appendix from the 179 people that I interviewed in Turkey.

This sample, consistent with other samples of Syrian refugees in Jordan and Turkey, is overwhelmingly Sunni, Arab, and anti-government (Pearlman, 2016; Schon, 2019). It also skews towards above-average education, wealth, and social status. Furthermore, while I attempted to maximize the amount of female respondents, my sample is more representative of male than female perspectives. It is also relevant that my sample only includes people who successfully exited Syria. Their ability to survive potentially places them in a different category than those who could not escape. In addition, people who were willing to speak with me had made judgments that it would be safe for them to do so. I did attempt to minimize respondent risk through several means, but risks may have remained given Turkey's authoritarian regime and heightened political tensions in the aftermath of Turkey's July 2016 coup attempt.[1] Jordan was

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[1] My efforts to minimize risk included several tactics: I did not record respondent names in digital materials. I used oral consent, took handwritten notes, saved notes that I had typed as soon as possible after interviews with file names that would not suggest that they contained important information, and I did not ask questions about

calmer at the time of fieldwork, but similar risks may have also existed there. This could have skewed my sample toward people that felt more secure.

Despite this biased sample, I believe that my analysis can still contribute to explanations of rumor evaluation and adoption during civil war. My sample includes people from southern and northern Syria with a wide variety of conflict experiences who left their homes between March 2011 and July 2016. I interviewed these individuals across Istanbul and Izmir within Turkey and across Amman, Irbid, Azraq village, Zaatari village, and Zaatari refugee camp within Jordan. Interviewees were identified through snowball sampling after identifying multiple points of insertion into Syrian communities (Bloch, 2007). I provide additional details on my fieldwork in the Appendix.

Moreover, I am primarily concerned with illustrating mechanisms through which rumor evaluation and adoption may occur. As a result, I am less concerned with obtaining a random sample than I would be if I were seeking correlations and precise estimations of causal effects. I did face constraints in my sample selection, but I was still able to obtain a wide diversity of perspectives. I use some numbers where appropriate to show that I am not highlighting idiosyncratic experiences and practices of rumor evaluation and adoption. Rather than trying to identify one approach that is most important, I show how each approach operates in practice.

Gathering data about Syrian rumors

Studying information belief presents substantial challenges due to the difficulty of obtaining data on the specific pieces of information that civilians consider, how civilians evaluate that information, and what the results of that evaluation will be. Some scholars isolate

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Turkish politics or Turkish policies toward Syrian refugees. I also did not ask about Jordanian politics or Jordanian policies toward Syrian refugees.

and code as many examples of specific pieces of information as possible. This observational

process tends to occur through newspaper articles or other media sources. Observational research

gathers a sample of information and examines patterns in its content (Shibutani, 1966). It also

searches for relationships between information and human behavior (Knopf, 1975; Young,

Pinkerton & Dodds, 2014). For example, Horowitz (2001) finds that rumors can both contribute

to the initiation and intensification of ethnic riots. Observational studies have more difficulty

estimating effect sizes and significance, but they are able to observe these processes in real-

world contexts.

Selecting a sample of pieces of information is difficult. Information that hits news outlets

has already spread across a large number of people, often through word-of-mouth. As one Syrian

respondent explained, "All the way, it was all rumors. We always talk about what we know and

what we believe. It was all unknown whether it was true or false… People wanted rumors in Tal

Al Shour [village close to Homs]. There were no other information sources. Only 5-10% could

get internet" (Respondent T092). Many existing studies acknowledge concerns about the

selection bias of only examining pieces of information that successfully spread to media outlets

(Bhavnani, Findley & Kuklinski, 2009). Many pieces of information that start through word-of-

mouth do not actually spread, so studies that only examine the information that spreads are only

including a small portion of total information.

Another approach is to use experiments. Through experiments, scholars can track how

individual pieces of information spread through social networks and observe many of the social

and psychological processes that influence information diffusion (Larson & Lewis, 2017). Such

experiments employ variations of the children's game of telephone to carefully control the

substance of the original piece of information and observe subject considerations at each step of the diffusion process (Allport & Postman, 1947; DiFonzo & Bordia, 2007).

There are ethical and practical concerns with the experimental approach. For starters, researchers could unintentionally influence rumor diffusion. If that influence increases the likelihood of belief in false rumors, respondents and their communities may experience distress and become more likely to engage in harmful activities. This risk exists even if the researcher informs the respondent at the end of the experiment that the information is false. In addition, experiments have difficulty mimicking real-world information environments. The conflict context creates an environment of danger and uncertainty that experiments cannot ethically replicate (Larson & Lewis, 2017). Given the call among rumor researchers for careful contextualization of rumor research, this is an important drawback (Knopf, 1975). All of these weaknesses dramatically limit the utility of experiments in studying rumor diffusion processes.

These concerns with experimental designs motivated an observational design that could avoid harming respondents. It then became necessary to address concerns about the selection bias of only analyzing information that spreads. This selection bias cannot be completely eliminated, but it can be reduced. The questionnaire used during fieldwork therefore asked respondents the following question: "Do you specifically remember any of these things that you heard? If yes, please share some examples of things that you heard that you did believe, as well as some examples of things that you did not believe." The reference in this question to "these things" referred back to the previous question that had primed respondents to think about battles and killings. Respondents were also probed to think about any other information related to political and security issues. The question then specifies information that respondents did believe and did not believe in order to separate the information that successfully spread (did believe)

from the information that likely failed to spread (did not believe). Information that respondents

did not believe was unlikely to spread because they would not have wanted to share it with

others. It is possible that some information that respondents did not believe did actually spread,

but it does reduce the selection bias of this study relative to other studies.

Respondents reported dozens of pieces of information that they did and did not believe.

The fact that almost all respondents who are asked are able to identify certain pieces of

information that they did believe and other pieces that they did not believe suggests that some

kind of evaluation process is occurring. Comparing these two categories of information

facilitates an analysis of how civilians chose which pieces of information to believe. This

analysis builds upon prior research through its data on individual pieces of information that

respondents were considering when they were living inside Syria and its ability to reduce

selection bias problems.

Syrian elite-driven narrative contest

To begin illustrating the interplay between narratives and information, I describe one of

the key events that sparked Syria's conflict. As tensions between the government and anti-

government groups were escalating in mid-March 2011, fifteen schoolboys painted the words

"al-Shaab yureed eskaat al-nizaam" ('The people want to topple the regime') on a wall in Deraa

on March 6. On Friday, March 18, 2011, their parents met with the chief of Deraa's Political

Security Directorate, General Atef Najib. General Najib was adamant that his men were justified

in arresting the boys. Two accounts of this meeting have survived. Assad supporters claim that

Najib agreed to meet with senior family members in his private office. He then defended the

legitimacy of the continued detention of the boys while admitting to the potential that the boys

had been physically mistreated. Opponents of the Assad regime claim that Najib berated the

boys' fathers for allowing their children's misbehavior and told them to forget their sons, go home, and make more children with their wives. If they should prove infertile, then they were instructed to deliver their wives to his office and he would ensure they gave birth to new sons. While either account would have continued the escalation of political contention in Syria, the opposition account was particularly inflammatory. Moreover, since the schoolboys were members of prominent tribes in southern Syria, including the Zoubis, Ghawabras, Masalmas, and the Baiazids, powerful communities in southern Syria were galvanized into action (Lister, 2016: p. 14-15). This specific encounter is often credited with escalating Syrian dissent into revolution and then civil war.

These opposing accounts of a critical event as political contention was escalating in Syria in March 2011 became part of the broader government narrative and secular opposition counter-narrative of the Syrian conflict. These are not the only narratives active within various groups involved in the conflict, but it is useful to focus on them to illustrate how different kinds of information, as well as different narratives, spread within opposing groups. One respondent even explicitly recognized this dynamic for himself, "People at this time split into two sides. Information spread quickly within each side. It did not spread between sides… I always believe information from my own side" (Respondent T029).

On the government side, their narrative termed the uprising as a war on terror (Lister, 2016). This war is allegedly sectarian, with Alawites and other minorities under attack and in need of Bashar Assad's government for protection (Corstange, 2016). Tough counter-terrorism actions would therefore be required to quash the sectarian Islamist terrorists (Lynch, 2013). Throughout the conflict, the Syrian government has asserted that it is in control and that it is the only force in Syria capable of providing civilians with a normal life (Ciezadlo, 2016).

This government narrative can be observed in Bashar Assad's speech on March 30, 2011. Unrest in Syria had been building into demonstrations across the country. Clashes with the police had killed more than 60 people (Blanford, 2011). One respondent claimed that many Syrians continue to feel that the conflict could have been avoided if Assad had made some concessions in this speech.[2] Instead, he confidently asserted that a conspiracy existed, and it was being orchestrated by a wide variety of foreign and domestic enemies. This conspiracy was meant to divide the country along sectarian lines and pose an existential threat to the very survival of the Syrian state. A key section of this speech, as translated into English, reads:

> In the beginning they started with incitement, many weeks before trouble started in Syria. They used the satellite T.V. stations and the internet but did not achieve anything. And then, using sedition, started to produce fake information, voices, images, etc. they forged everything. Then they started to use the sectarian element. They sent SMSs to members of a certain sect alerting them that another sect will attack them. And in order to be credible, they sent masked people to neighborhoods with different sects living in them, knocking on people's doors and telling each that that the other sect has already attacked and are on the streets, in order to get a reaction. And it worked for a while. But we were able to nip the sedition in the bud by getting community leaders to meet and diffuse the situation. Then they used weapons. They started killing people at random; because they knew when there is blood it becomes more difficult to solve the problem.

> We have not yet discovered the whole structure of this conspiracy. We have discovered part of it but it is highly organized. There are support groups in more than one governorate linked to some countries abroad. There are media groups, forgery groups and groups of "eye-witnesses". (Landis, 2011)

On the secular opposition side, their narrative termed the uprising as a revolution for freedom and democracy. This narrative contends that Syria experienced a popular non-violent revolution in line with other revolts during the Arab Spring. It is non-sectarian and not a civil war. As one respondent argued, "Why do you say conflict? It is a revolution. It is a revolution against everything. We are civilians. We do not do conflict. It is from the people, so it can't be

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[2] Personal communication with a Syrian university student in Istanbul on October 21, 2016.

conflict. We want to change the system, not just the dictator" (Respondent T044). Violence emerged and escalated in reaction to the regime's brutal crackdown to peaceful protest (Shehadi, 2013).

When Bashar Assad gave his national address on March 30, 2011, where government supporters may have felt reassured and protected, the opposition interpreted the speech as an insult. Opposition groups portrayed it as yet another assault by a harsh, repressive government, so they responded by calling people to the streets. For example, the Syria Revolution 2011 Facebook page posted shortly after the speech: "Go down into the streets now and announce the uprising—control all the cities and declare civil disobedience from this moment onward" (Blanford, 2011).

However, the following sections will show why, despite the strong influence of the narrative contest, neither the government nor the secular opposition had complete control over which rumors civilians believed. This is because evidence can lead civilians to believe rumors that are inconsistent with existing narratives.

Syrian civilian rumor evaluation

Respondents were asked a series of questions about how they evaluated rumors. This begins with whether they felt like they could distinguish false information from accurate information when they were inside Syria. Out of respondents who answered this question, 97 people believed that they could distinguish fact from fiction and 36 people did not believe they could. The 36 people who did not think they could distinguish fact from fiction are unlikely to be evaluating rumors based on empirical evidence. Instead, narratives are likely to be paramount. For the 97 people who did think they could distinguish fact from fiction, narratives and counter-narratives may influence their evaluations, but not to the complete exclusion of evidence.

Out of the 97 people who felt that they could distinguish fact from fiction, 67 of them explained how they evaluated rumors. Many respondents reported using multiple tactics. Overall, respondent answers fell neatly into three categories: (1) Depending upon one's own experience and investigation to determine whether the rumor is logical (self-evaluation); (2) Evaluating the source of the rumor; and (3) Discussing the rumor with other people (collective sense-making). Category (1) is an individual-level tactic. Respondents indicating that they evaluate rumors in this way believe that they have the knowledge to effectively evaluate rumors themselves. Category (2) is a dyad-level tactic. Civilians evaluating the rumor source are using characteristics of their relationship to the source to determine its credibility. Therefore, factors like political affiliation, status in the community, ethnicity, and religious affiliation all become important. Category (3) is a group-level tactic. As civilians discuss the rumor that they hear with others, rumor evaluation becomes a group process. This has previously been termed "collective sense-making" (Shibutani, 1966). In the Appendix, I provide a breakdown of the number of people in the sample who reported using each method of rumor evaluation, as well as how gender, education, and social status may have influenced this process.

Self-evaluation

Respondents thinking through rumors with self-evaluation emphasize the importance of determining which pieces of information are logical. Some explain that "I asked whether the information was logical" (Respondent T010). Another said, "There is a saying. 'Throw half of the information away.' You have to think logically" (Respondent T050). This logic could be very structured. "When information was overly exaggerated or overly perfected, I knew it was false" (Respondent T144).

Identifying logical information, however, can be difficult. For respondents, such difficulty was particularly great at the beginning of the conflict. "Everything was really complicated at the beginning. We heard contradictory things. The government also contradicts other sources" (Respondent T145). To effectively respond to this confusion, respondents coalesced around expressing the value of experience in evaluating rumors. Experience produces confidence in people's own ability to evaluate rumors, particularly among civilians who remained in Syria for several years of the conflict. Many simple answers stated, "I depend on my experiences" (Respondent T012). One respondent even claimed insight into "both sides"[3] of the conflict, "This is personal judgment. I know how both sides think" (Respondent T154). Respondents who developed this point further made a temporal component explicit. For example, "After five years, I had complete experience" (Respondent T013). Another respondent added, "After five years of conflict, anyone has to have the experience to know. At the beginning of the conflict, you cannot distinguish fact from fiction" (Respondent T019).

Such experience seems to imply that respondents are considering their own personal experiences, but they also form their own expectations about what new pieces of information will be reliable. Some respondents would investigate new rumors themselves, "I usually went to the place to check the information" (Respondent T028). Evidence could be considered in these individual evaluations, but the strong role of prior experiences and expectations about which rumors are believable suggests a prominent role for narratives and counter-narratives.

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[3] This respondent, like many respondents in the sample, recognize that there is an enormous proliferation of armed groups in Syria. Yet, respondents frequently discussed the conflict as a fight between pro-government and anti-government groups. This is what the respondent is referring to with the reference of "both sides."

Evaluation of the source

At the dyad-level, respondents report that they would "check the source of the information" when they were inside Syria. As one person succinctly stated, "I depend on [what I know about] the person who told me about it [the rumor]" (Respondent T002). Checking the source means that they would consider the political affiliation, expertise that the person held with regards to ongoing conflict dynamics, and other potential biases of the person. Anti-government civilians frequently express the perception that "If you were in Syria, you would naturally check all information. If it was from the Syrian regime, it would naturally be unbelievable. They depend on propaganda and false information. The main mission of the Syrian regime is to talk about their side" (Respondent T003). On the other hand, "When it comes from an opponent of the government, it was true" (Respondent T023). They would also evaluate the nature of their relationship with the source. This meant that trusted sources would be believed (Respondent T016). This evaluation of other people could involve several details, "First, I noted the personality and background of the person. I also monitor the gestures and body language" (Respondent T062). Such considerations of relationships at most only considers evidence indirectly. Instead, evaluating rumors through an evaluation of relationships should reify divides that have already been created through established narratives and counter-narratives.

Collective sense-making

At the group level, conversations with other people can also easily reinforce divides between narratives and counter-narratives. These conversations often occur with friends and family (tie strength), and when they don't they tend to occur with co-ethnics (ethnic homophily) or people with similar political beliefs (ideological homophily). In talking to other people, respondents claim "If you get the information from different sources, you can make sure it is

true" (Respondent T001). A small number of respondents demonstrated conscious attempts to reach beyond these bonds of tie strength, ethnic homophily, and ideological homophily. One of these respondents explained, "I would listen to both sides, and then compare their stories" (Respondent T047). These respondents are the most likely respondents to be evaluating rumors based on available evidence, rather than existing narratives.

Overall, respondents appear to have difficulty separating evidence from existing narratives. Many respondents did not even believe that they could distinguish true information from false information. People in this situation appear completely dependent upon narratives. When respondents did feel that they could evaluate rumors, narratives may still drive the results of their evaluations. This observation holds regardless of whether they self-evaluate rumors, evaluate the source, or engage in collective sense-making. Collective sense-making appears most likely to help civilians evaluate rumors based on evidence, even if it contradicts existing narratives.

How civilian rumor evaluation reduces elite control

Despite such difficulty in separating evidence from narratives, civilians can and do come to believe rumors that are consistent with evidence and inconsistent with existing narratives. If evidence creates factual beliefs that contradict the existing narrative, then civilians are likely to believe rumors that are consistent with the factual beliefs and inconsistent with the narratives. This demonstrates that elites cannot just make up anything that they want (Nyhan et al., Forthcoming). Moreover, rumors can spread without elite direction or assent (Young, Pinkerton & Dodds, 2014).

The results of civilian rumor evaluation processes can be analyzed through a comparison of the information that civilians did and did not believe when they were inside Syria. This

examination reveals that respondents used narrative-based evaluation for the majority of rumors. Yet, a significant minority of rumors were evaluated based on evidence. As a result, some rumors spread against the desires of elites.

As respondents recall the specific pieces of information that they did and did not believe, it was often easier for respondents to isolate the information that they did not believe. When they gave specific examples of pieces of information that they heard and did believe, such information was almost unanimously consistent with the opposition narrative of a harsh, repressive government and an opposition that was fighting for the people. One exception was the assertion that "The regime did not let people drink water and did other bad things at checkpoints. The opposition did the same thing" (Respondent T066). While the sample of primarily secular Sunni Arabs who oppose the Assad government focused on an opposition narrative for their evaluation of information, there are suggestions that civilians on the pro-government side behaved in similar ways with respect to the pro-government narrative (Respondent T029).

On the opposition side, respondents therefore believed many rumors that were consistent with the opposition narrative of a harsh, repressive government that would fall to the people. Describing the government's pervasive repression, one respondent explained how it followed one of his acquaintances all the way to Russia:

> I know this guy. He was in Russia having a meal. He put his bowl of food on a newspaper. He did not notice that the newspaper had a picture of Bashar Assad on it. Apparently, somebody saw and wrote a report. When he got back to Syria, he was arrested. (Respondent T015)

Other respondents emphasized the government's brutality. For one person, "[I believed] stories about the government killing children. I believed them because I knew they did these things" (Respondent T022).

Another person recalled a rumor regarding the government poisoning the water supply. "At the beginning of the conflict in Aleppo, when the FSA entered Aleppo we heard that the Syrian regime had poisoned the water in Aleppo. We believed that and we warned the civilians to be careful. This was in September 2012" (Respondent T112). This rumor is consistent with many rumors documented by Horowitz (2001) in ethnic riots across South Asia and Africa. In Syria, rumors of poisoned water easily spread because they are consistent with known behavior by both pro-government and anti-government armed groups (Jazeera, 2015). In the instance of the above respondent's example, Aleppo's water supply was affected during September 2012. However, it appears to be the result of a damaged water pipe during fighting between government and opposition forces (Kirkpatrick & Droubi, 2012). Opposition groups blamed heavy shelling from Syrian helicopters, while the government blamed rebel sabotage. Water does not appear to have been poisoned. The discrepancy provided a mobilization tool for the opposition.

A more recent claim of poisoned water emerged in Damascus in December 2016. At the time, the Assad government claimed that rebels in control of the Wadi Barada Valley northwest of Damascus, had contaminated the al-Fija spring with diesel (Jazeera, 2016). This claim spread widely, prompting investigation from the UN Commission of Inquiry on Syria. Its report released on March 10, 2017, states that there was no evidence of intentional contamination of the water supply from the al-Fija spring. Civilians who are unaware of this report are likely to believe this rumor though, since its consistency with existing narratives makes it plausible.

Then, one respondent highlighted the government's need to force people to join its army because it had lost so many men to death and desertion. "When I heard from my friends that the Syrian regime would start collecting young people whose age was from 20 to 40 to join the

army, I believed that because most of their soldiers were either killed or ran away" (Respondent T109).

Anti-Assad respondents also rejected many rumors that were inconsistent with existing narratives. Some of these respondents rejected rumors simply because they came from the government. For example, one person explained, "There were many rumors that we did not believe like when we heard that the government would help Aleppo and provide us with aid, electricity, and internet. We did not believe them because we distrusted them. They are liars" (Respondent T109). This government distrust also included disbelief about claims that were critical of opposition groups, "I heard information from the Syrian regime that the FSA are terrorists and that they are going to kill us. I laughed since it was funny for us because we know who was killing the people" (Respondent T097). Another respondent was even more explicit, "I never believe anything that the system says. If it says that milk is white, I do not believe it… For 6 months, we [the revolution] used the red flag of Syria. But, the government said that this meant the protests were for the regime. So, we changed to a green flag to show that we are against the regime" (Respondent T044).

In other cases, respondents recognized certain pieces of information as being part of the government narrative. Since they were opposed to the government, they rejected rumors that appeared to be part of the government's attempt to disseminate its narrative. One respondent recalled some rumors that appeared to carry the intent of discrediting the demonstrations in 2011:

> I heard from government officials that the Saudis paid for people to go on demonstrations. I participated in the demonstrations. None of us were paid… I also heard from an army soldier that the opposition hired African people to fight with it. I did not believe these things. (Respondent T001)

Another respondent built on these observations of apparent government attempts to spread

propaganda with a piece of information that seemed particularly unrealistic. "I heard that Bashar

Assad went to a conflict area and all of the people were giving him hugs. I only believe this if

someone made them do it. Or, it may be true if this happened in Lattakia" (Respondent T146).

The government's propaganda efforts appeared explicitly threatening to a respondent from

Homs:

> At the beginning of the conflict in Homs, the Assad regime spread rumors. For example, they said that the Alawi groups would attack your area. We took weapons and prepared for an attack. After that, this information was unbelievable. The regime spread this information to get Alawi people ready. The Alawi people took weapons. They were ready. After that, we don't believe. These were the only rumors spreading in our area. (Respondent T029)

> Despite the substantial role of narratives and counter-narratives in influencing which

information civilians believed, there were also many rumors that civilians chose to reject because

they strayed too far from existing evidence. While Horowitz (2001) contends that people may

actually be more likely to believe exaggerated information in highly contentious political

contexts, this insight reveals that evidence really can and does matter. For example, "They said

that the FSA was fighting the government in Manbij. I did not believe this because Manbij is

between their territories" (T006). Here, the respondent was evaluating the rumor based on their

evidence of government and FSA troop positions. Furthermore, another respondent dismissed

FSA claims to have carried out an assassination of a relative of Bashar Assad. According to this

respondent:

> There was an explosion in a meeting of government. The FSA claimed to have done it, but I did not think that they were capable of doing that. It was sometime around the beginning of 2012. It was actually close to my house. The broadcast channels claimed that Bashar Assad's brother had died. Now, I know that Bashar's son in law was killed, but his brother was not (Respondent T060).

Here, the respondent displayed flawed memory. Bashar Assad has three children, with only one of them being a daughter. She is not married, thus precluding the chance of Bashar Assad having a son-in-law. Instead, based on the time mentioned in 2012, the description of a bombing of a government meeting, and the detail of the person being an in-law of Bashar Assad, it is more likely that the respondent is referring to the assassination of several key government figures in July 2012. These figures included Bashar Assad's brother-in-law Assef Shawkat (McElroy, 2012). Still, the respondent is using evidence to dismiss the claim that the FSA carried out the attack.

In many other cases, civilians rejected rumors based on their pessimistic interpretation of the conflict. To them, such pessimism was evidence against pieces of information that were more optimistic for anti-government people. For example, one respondent rejected a claim that the United States would enter Syria based on pessimism about American desire to help the Syrian people. "There was a fabrication on YouTube. A video was used of Obama crying after a school shooting in the United States. The translation was fabricated to say that he would help Syria. It was a rumor, and it was illogical" (Respondent T034). A former Aleppo resident explained why they did not believe that the FSA would enter the city:

> One day, during Ramadan, they said that the FSA would come and invade New Aleppo. Every day, they said that the FSA would come, but they never did… Every time I heard about an attack, I was convinced that it would not happen because I did not believe that anyone actually wanted to end the war. (Respondent T010)

One of the most common examples involved Bashar Assad. Many respondents reported hearing claims that Bashar Assad had been killed (Respondents T022; T020), or he had fled Syria (Respondent T144). This was even viewed as a routinely heard false piece of information, "Every single Bayram, Assad gets shot. This is clearly false" (Respondent T144).

This article has thereby shown that while narratives and counter-narratives influence a majority of the decisions of whether to accept or reject new pieces of information, evidence also plays a role. Elites cannot create any narrative that they wish, and this is not just due to a lack of their own resources or capabilities. It is also due to civilians evaluating rumors through self-evaluation, evaluation of the source, and collective sense-making methods that elites cannot completely control. This dynamic is a key component of rumor diffusion during conflict.

Conclusion

Rumors do not just spark instability and violence. They may also help people protect themselves. Rumors can be incredibly valuable tools to help people develop understandings of conflict events, even if those understandings are not purely factual. The rumors of violence and various security issues that this paper describes were not all true, but they did force people to consider dangers and take action to protect themselves. The story of Mohamed's family in the introduction illustrates this dynamic.

This article sheds light on how narrative-based and evidence-based rumor evaluation processes combine to shape rumor belief. More broadly, it shows that social network and narrative dynamics combine to influence rumor diffusion. It also contributes an application of the motivated reasoning framework to conflict settings, which have unique features such as high risk and high uncertainty. I contend that people want evidence and that challenges in distinguishing narratives from evidence allows narrative-based rumor evaluation to occur. This provides an opportunity for elites to influence rumor belief (Kaufman, 2001). Ultimately, narratives have the largest effect upon civilian rumor belief, but elites face constraints in shaping narratives (Benford & Snow, 2000; Nyhan & Reifler, 2010).

My findings challenge characterizations of rumors as inherently false or dangerous. Sometimes, rumors save lives. Future research should be open to the many diverse ways individual and peer effects may combine to drive rumor evaluation and belief (Alatas et al., 2016; Allport & Postman, 1947; Shibutani, 1966). Do different rumor evaluation methods lead to the diffusion of different kinds of rumors? With this paper's argument that elites influence rumor belief through narratives, which civilian mechanisms of rumor evaluation—either self-evaluation, evaluation of the source, or collective sense-making—promote evidence-based over narrative-based rumor evaluation? What kinds of variation in evaluation and belief patterns exist for other types of information, such as conspiracy theories and propaganda? Are these processes different for information about past events versus information about future events?

More broadly, does the method of evaluating new information affect civilian security? One might think that consulting more peers is always better, since it reinforces ties within social networks. On the other hand, consulting peers to discuss information about conflict events may be perceived as dangerous, given the risks of surveillance and violent retribution if the wrong actors learn that an individual is talking about the wrong things. Through this perspective, information evaluation may have a crucial and complex relationship with civilian security.

Rumors can be the only available information source. Civilians may leave their homes due to a rumor and arrive in a safer location. They may believe false rumors about impending violence, but those rumors may predict other violence that is forthcoming. As civilians evaluate rumors, they may even develop deeper understandings of possible dangers in their communities. We should therefore care about the processes of rumor evaluation and belief not only to help us understand rumor diffusion specifically, but also to understand how civilians protect themselves generally.

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