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NEED FOR COGNITION AND RUMOUR THEORY IN POST-REVOLUTIONARY EGYPT

The American University in Cairo

The School of Global Affairs and Public Policy

NEED FOR COGNITION AND RUMOUR THEORY IN POST-REVOLUTIONARY EGYPT

Lina M. Ashour

A Thesis Submitted to The Department of Journalism and Mass Communication

In partial fulfillment of the requirements

for the degree of Master of Arts

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Abstract

Egyptian society went through a number of significant changes between 2011 and 2015 as a result of the January 25 Revolution. Beyond the political implications, there have also been shifts in the social and psychological motivations behind the way people consume media and share information. This included a sharp increase in the public's interests in political affairs after spending years of being generally apathetic. This paper examines whether this could be described as an increase in Need for Cognition on a social level and whether this has affected the spread of rumours in Egyptian society. Through in-depth interviews with a convenience sample of media professionals, the evolving relationship the Egyptian people have with their own sense of identity, the government, and media outlets is examined.

Keywords: Egypt, Revolution, Need for Cognition, Rumours

Introduction

The January 25 Revolution and its repercussions has become a hot topic for many academics in a variety of fields. This study aims to take a multi-faceted approach to understanding how it has affected communication in Egypt on both the individual and social level. This research aims to combine individual psychology and community behaviour to better understand the full extent of the impact the Revolution had on Egyptian society. This analysis will be done using a novel approach to the Need for Cognition (NFC) theory. For the first time, it will be applied to social behaviour and taken beyond the realm of an individual trait. This will be followed by an examination of how this can relate to the spread of rumours in a society. Egypt is a perfect case study for this type of research because of the massive political upheaval it has recently experienced.

This will be done by first examining the political climate under Mubarak's presidency and the direct affects it had on the Egyptian people. The years of Mubarak's presidency were marked with a rapid deterioration in the socioeconomic and political conditions of average Egyptians. This led to a feeling of hopelessness and lack of dignity (Fahmy, 2012). Three major trends were identified as catalysts to this state of mind, they included an increase in abuse of power and excessive police brutality, political and economic corruption that had come to affect most segments of society, and a decline in the Egyptian middle class as the gap between rich and poor continued to grow (Fahmy, 2012).

During those years, it was difficult to separate discussions about the media and dissemination of information from the state and its extended security

apparatus. This security apparatus helped in reinforcing a lot of injustices including censorship, extending the powers of the police forces, and a suspension of many constitutional rights. The level of government control over almost every aspect of life had reached unprecedented levels under Mubarak's regime.

This study will examine the full extent of this governmental control over so many aspects of Egyptian public life including its relationship with the media ahead. This relationship was greatly affected by the January 25 Revolution for a number of reasons. The shift in the media landscape brought with it a new set of challenges and opinions towards different outlets, programs, and presenters. Public sentiment towards media fluctuated between unwavering support and outright hatred in some extreme cases. The media itself had trouble with consistency because the country went through even more radical changes in the four years that followed the revolution. This makes it difficult for Egyptians, whether they are civilians, activists, or media personalities to maintain a consistent stance or viewpoint on the country's state of affairs. This is complicated further by the complex communication processes that have emerged as a result of and following the revolution.

Despite all this political and social turbulence, certain things had become clearer to all parties involved. The first and most obvious outcome of this revolution was the change in the quality of conversations being had across the country. Talking about politics no longer became a pastime for middle-aged men in their local cafes but the daily norm for all segments of society. Within this domain of increased political discussions came a newfound respect and appreciation for social media and the positive role it played in the revolution. Platforms such as Facebook and Twitter

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were now considered viable alternative sources of news. The level of political discussion and information sharing online increased exponentially. This new heightened interest in politics was not simply limited to consuming more news and from more varied sources, but was also elevated to a complex level of analysis and discussion.

Though it may be difficult to quantify due to the lack of any pre-existing data, this increased interest in news and the corresponding increase of political conversations online have created an environment that would allow for the easy spread of rumours. Information that is obtained from Facebook or Twitter often goes unchecked or unverified. Even when the source is what is conventionally considered reliable such as traditional media, there is still a level of distrust that allows for the questioning of the information's validity. This air of doubt however has not deterred people from sharing news that is not necessarily credible. When something is revealed to be a rumour, it is often attributed to some kind of enemy. Accusations of treason or an attempt to undermine Egyptian progress or stability soon follow. Although rumours are a part of social interactions anywhere in the world, they seem to have assumed a different role in Egyptian culture. Despite their prevalence in Egypt, it raises the question as to why rumours are so readily demonised and must be the work of some villainous entity trying to undermine the state. Why are they never viewed as a means to filling a knowledge gap or a simple misunderstanding or miscommunication?

The interaction of these elements has created a very interesting paradox that is both complex and multi-layered. The most basic factor in this interesting

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communication labyrinth is the increased levels of awareness and motivation to understand the Egyptian political scene. How did Egyptian society go from being largely apathetic to being such active participants in social and political dialogues? And within these conversations how does a rumour start and why does it spread so readily, specifically in traditional or social media? It seems counterintuitive for rumours to be spreading in an environment that has recently begun to put more value on seeking out and understanding new information. Answering these questions would require a consideration as to whether these two factors are related. For a truly comprehensive understanding of these changes and new trends, it would also be important to examine the relationships between audiences or civilians, media outlets and media professionals, and the state with its various governing bodies. All of these entities have evolved in some way since the revolution and consequently, so have their interactions with each other.

Literature Review

EGYPT'S MUBARAK, THE JANUARY 25 REVOLUTION, AND MEDIA NARRATIVES

It is very challenging to accurately portray what the Egyptian people collectively felt and the amount of changes they experienced in their day-to-day lives in the years following the 2011 Revolution. Due to the very interesting and unique nature of these events and sentiments however, a number of scholars have attempted this difficult feat. Before applying any theories to contemporary Egyptian communication and interaction, it is necessary to create a somewhat comprehensive view of the social, political, and media landscape in Egypt following the 2011 Revolution and how it differed from pre-revolutionary Egypt.

Barsalou (2012) stresses the importance of historical narratives in understanding a state, its culture, and its people. "Egypt is no different from other countries in which historical narratives mirror conflict and its resolution. The Mubarak regime, like those preceding it, effectively manipulated historical memory to serve its own purposes." (p. 134). This control that was exercised by Mubarak on historical memory to influence the Egyptians and their understanding of their role in the country as a whole partially explains why there is currently such a fierce struggle for control over the contemporary narratives that will soon affect Egypt's short-term future.

Barsalou explains some of the uses of historical memory and consequently highlighting its importance; "Memorialization cuts two ways. It can help victims and survivors obtain acknowledgement that they were wronged and promote social recovery (what some call "reconciliation" or "healing"). But it can also crystallize a

sense of injustice and strengthen the desire for revenge.” (p. 135) When the intention is to subvert the truth and sway public opinion towards those in power, then the latter scenario which involves a sense of injustice and a desire for revenge becomes more likely.

Other than it being used as a tool and a means to a particular end, historical memory can also act as a useful indication of the relationship between various actors in the state. “Memory projects and memorialization are highly politicized processes that reflect power dynamics within society.” (p. 136) Consequently, various groups will try to steer public memory in a direction that would serve their own political agendas. A fundamental aspect in creating a collective or public memory is having adequate access to information. The author points out that despite the call for more transparency in Egypt, a lot of the policies and laws regarding access to information and historical documents remain largely unchanged (p. 136). Therefore, people have taken to alternative means of documenting its recent revolution through graffiti, music, and a number of other art forms.

This struggle over information and the resources required to create an accurate portrayal of the events is only one of the many obstacles that is confronting Egypt. Gerbaudo (2012) discusses the factors that have contributed to Egypt’s troubled transitional period. The leaderless nature of the revolution was widely celebrated and validated it as being democratically representative of the Egyptian people’s demands. However, this same lack of leadership led to many complications following Mubarak’s departure from the presidency. Gerbaudo argues that a lot of

the strategic problems that the revolutionary movement faced during the transitional period were contributed to by resorting to informal mobilisation during the uprising against Mubarak (p. 8) That this connection between the two phenomena is often forgotten makes understanding these problems even more difficult.

This became evident when the first parliamentary and then presidential elections were held, Islamists managed to politically outmaneuver the revolutionaries as a result of their well-formed structures and high levels of organisation. The revolutionary movement on the other hand was “pervaded by anti-organizational cynicism and a self-defeating reluctance to participate in the arena of electoral democracy.” (p. 8). The noble ideals of a leaderless revolution had ultimately backfired for many liberals. Since the success of the Muslim Brotherhood in one election after another, there was an increased awareness amongst activists of the flaws in their methods of political organisation. These flaws may have been caused by a lack of trust, “In Egypt as in the West, activists have too often nurtured a dogmatic neo-anarchist and essentialist suspicion toward formal organizations.” (p. 22)

Brown (2012) took an in-depth look at what was becoming an increasingly complicated relationship between religion and the state. The study begins by pointing out how the seemingly unified voices of the revolution quickly disintegrated into a multitude of voices, each with its own demands and political ambitions. This pluralism was being translated in conversations happening in a

number of spheres and arenas such as talk shows, public squares, and university campuses. (p. 532) Each of these however would struggle with organisational and internal disputes that would threaten most voices outside the pro-military or pro-Islamist directions.

In the aftermath of the revolution, the blurred lines between religion and state took on more complex dimensions than ever before. This happened in two ways; first, because of the increase of plurality in the contending actors, and secondly, those actors were not trying to reach out across existing divides but had contributed to further obscuring them (p. 533). In Brown's view, religion was not a single unified voice that was only represented by the Muslim Brotherhood, it was also represented to varying degrees by major religiously-affiliated groups such as Al-Azhar. The way liberals and leftists viewed the rising trend of political Islam in Egypt was also taken into consideration. Brown contends that the case of Egypt shows that what he refers to as "nonsecularism" can come in many forms, and that it is sometimes almost impossible to create clear boundaries between religion and state.

The series of revolutions that happened in the Arab world forced political theorists back to the drawing board to revise the discourse that had once viewed the region as being immune to democratic change. The nature of these Arab revolutions challenges academics to come up with more innovative approaches that would allow students to view them as "living, contested phenomena rather than a set of well-defined, discrete outcomes." (Sallam, 2013). This line of thinking should be applied to our social understanding of the revolution, not just the political aspect of it. This could also help us to understand how certain media theories should be

adjusted to accommodate all the radical changes that have been happening in Egypt since the revolution.

Sallam's (2013) intention was to encourage more critical thinking about history by both students and their teachers. He uses the Arab revolutions as the ideal example of the importance of examining recent events through an approach that does more than simply looking at the narratives offered by mainstream media. This is done by pointing out that the contending narratives did not offer alternative scenarios, but in a lot of cases conflicting ones. For example, one narrative that was protected by many supporters of the military declared that the army had protected the revolution and revolutionaries. Military chiefs denied receiving orders to open fire on the protestors, in which case there was theoretically nothing to protect them from.

Other narratives pitted the educated internet-friendly youth of the revolution against labour movements and the workers who continued to protest for their basic social and economic rights. During the 18-day revolution, both these groups had the same demands; but in the months following, labour protests were often portrayed as selfish attempts to derail the revolution in favour of the workers' narrow-sighted material gains. This battle over the extent of the role played by labour movements was highlighted by measures used to contain them including a law passed in the spring of 2011 banning labour strikes and protests.

These various narratives and conflicting voices were often mirrored in Egypt's mainstream media. Before we delve into the changes that occurred on the media scene after the revolution, we must first understand what it was like immediately

prior to it. Sakr (2010) studied the challenges and effectiveness of reporting inside Arab dictatorships. This was done through an examination of the licensing and legal processes that brought about an increase in the number of media outlets in Egypt since the turn of the century. Government-controlled newspapers and television channels had started facing competition from satellite channels and privately owned local papers, some labeling themselves as independent while others were party affiliated.

While this broadening of the media spectrum created an illusion of plurality and many admitted to having an increased margin of freedom of expression, media transparency remained illusive. Although these changes created an impression of openness and a corruption-free media, many topics still remained off limits in reality, "Either people censor themselves to avoid overstepping the unwritten boundaries, or they discover they have 'transgressed' after it is too late." (p. 37). The authoritarian approach towards the spread of information created an environment of fear that would not allow journalists to freely double-check or verify information. At the same time, average citizens were also reluctant to participate in any efforts to verify information since they knew it could put their livelihoods or families at risk. (p. 38)

This form of self-censorship was encouraged as a result of the vague terminology used by officials to describe what would be considered a punishable offense. An extra layer of repression other than the actual legal restrictions exists in the vague wording of prohibitions, which is another symptom of dictatorship since it allows for interpretation that is beneficial to the state (p. 40). Sakr goes on to

explain that the main difficulty of reporting in a dictatorship other than direct threats to a person's wellbeing, is the dual system of participatory politics in independent media outlets and a police state operating in parallel. This allows lawmakers to make grandiose claims of protecting public interest as a means of suppressing opposing opinions. To avoid living up to the principles of freedom of expression, the information ministry uses licensing technicalities to censor content. Furthermore, security forces can detain people without charging them regardless of the prosecutor-general's orders (p. 46)

Two years later, Sakr (2012) researched television media from a different angle. She examined the interaction between offline and online media outlets, a natural consequence of the revolution and the resulting increase in focus on online media. Sakr observed that following the revolution, many television channels and news outlets had become more active on social media. The significance of this was particularly felt in the Arab world, "in Middle Eastern dictatorships, where transnational media can undermine censorship, online-offline media interactions do have the potential to alter power relations in news production." (p. 324). These power relations and the shift that occurred within them were studied in this research with a focus on the government's motivations for providing licensing to private channels and the relationship it had with Egypt's business elite.

In order to compete with rival regional cities over pan-Arab media production, support state investment, and appease local businessmen, the Egyptian government decided to license private television channels for the first time in 2000

(p. 325). Even then the state had not relinquished its control over terrestrial broadcasting, instead they allowed private owners to broadcast through satellite channels from a designated free zone. A few years later, and the rise of the political talk shows had become unavoidable. Space for talk about national politics, as opposed to regional politics, had opened up on Egyptian television. This came as a result of pressure from the increasing competition in pan-Arab television and to elevate the mutual influence of Egypt's regime and its elite businessmen (p. 333).

This new form of political communication however was closed off to the majority of the public. The period also witnessed an increase in the use of online forums as a tool for political discussion and debate. As bloggers and online activists became more prevalent in Egypt, the teams behind the television talk shows started to interact with them as a way of connecting further with the public. The article points out that by 2008, television's most popular hosts were discussing a range of issues from Facebook that were relevant to the public (p. 331). This interaction between the offline and online outlets did not go unnoticed by the Egyptian government. Government surveillance of online media was also on the rise and Egypt saw many cases of bloggers or Facebook activists being jailed for the views they expressed online. Sakr highlights the fact that the restrictions placed on mainstream media pushed many on the periphery to online communication but that very same lack of balance in power prevented it from fully breaching the divide between traditional and Internet media.

Despite the fact that a relationship had been formed between some traditional

media outlets and the more independent voices online, many governmental newspapers still held very narrow perspectives and blindly supported the state. Hamdy and Gomaa (2012) studied how governmental and independent newspapers as well as social media outlets framed the Egyptian uprising. They did this using a quantitative content analysis of a sample of media coverage between January 25 and February 12, 2011. Newspapers such as Al-Ahram and Al-Akhbar were used to represent governmental newspapers, al-Shorouk was an example of an independent newspaper, and Facebook groups such as “We Are All Khaled Said” were used to represent social media coverage. The researchers identified their frames as human interest, conflict, responsibility, and economic consequence.

They found that “semiofficial (governmental) newspapers framed the event as “a conspiracy on the Egyptian state,” warning of economic consequence and attributing blame and responsibility for the chaos on others. Social media posts used a human interest frame defining protests as “a revolution for freedom and social justice” and independent newspapers used a combination of these frames (p. 195). The authors observed that these frames might contribute to the formation of societal views regarding collective actions or any other informed decision they might make as a result of these frames. For those who were not present at the protests, this may have played a role in influencing public perception in the very early stages of the revolution.

What is even more interesting is the change in frames used by governmental and semiofficial or independent newspapers as the tides of the revolution changed.

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Rather than informing or shaping public opinion, they started to follow it, which led to an erosion of trust towards them. Despite the apparent potential of the revolution for creating a more open and trustworthy media landscape, the damage had already been done. The abrupt and complete switch by semiofficial newspapers by going from backing the Mubarak regime to supporting the revolution will damage their credibility for years to come. It was clear that this change only occurred when the protests appeared to be succeeding in bringing about political change. This gave them the reputation of being the propaganda arm of whoever was ruling Egypt at the time they were reporting (p. 208).

In contrast, social media posts covering the protests live from Tahrir Square gained a lot of credibility despite the lack of journalistic standards or practices. “Not all posts could be verified and often rumors proliferated. In spite of these problems, social media posts were often more truthful than other media options and they gained substantial credibility as a result.” (Hamdy and Gomaa, p. 208). The general sentiment was that these posts were more accurate, factual, and more representative of the spirit of the revolution.

Alexander and Aouragh (2014) revisited the role of media in what they referred to as “Egypt’s unfinished revolution”. They distinguished between political synchronisation of media and media convergence and how this was affected by the broader political stage. In their analysis, they reject the deterministic approach to understanding the relationship between online and offline actions. They examined three case studies that show how popular movements had transitioned from relying on traditional media to voice their concerns, to developing their own media voices despite the struggles that come from practicing revolutionary journalism on outlets such as Facebook (p. 891).

Alexander and Aouragh argue that activists and revolutionaries must develop their own unified media structures that go beyond the realm of alternative media. This is despite a rapid increase in mobile and internet penetration in the region, with the Arab world contributing the most to global social media growth since 2011 (p. 892). Here they point out that this rapid increase happened mostly after the Arab

Spring and consequently we should not confuse cause and effect in the relationship between the uprisings and the use of social media. As for traditional media, it had succeeded in achieving political synchronisation in both form and content during the 18-day uprising, which the authors argue contributed to the success of the first phase of the revolution. In the aftermath however, traditional media had not been cleansed of state supporters, which helped in creating a counter-narrative. The interaction between the two opposing narratives exposed the crisis between activists and media institutions and the shifting balance between revolution and counterrevolution (p. 910) as well as the move “between the practice of revolutionary journalism and journalism as revolutionary practice.” (p. 910).

The debate over the role and extent of influence played by social media in the Arab Spring continues to be a point of contention for academics and analysts. Joseph (2012) tackles this issue by examining the views that are for and against the importance of social media in bringing about political change. Gladwell is one of the biggest skeptics and argues that activism on social media is lazy and could trick a user into thinking they have actually achieved something by liking a post on Facebook or retweeting something on Twitter and that this shows a lack of motivation to make a real sacrifice for political change. He also notes that real or effective activism requires a solid hierarchy and a clear allocation of tasks. Taking this argument a step further, Joseph considers the views of Morozov who argues that the Internet often distracts people from important issues. “Morozov notes the danger that the sheer volume of information available through social media—coupled with its increased general availability via the Internet and 24/7 news

cycles—creates shorter attention spans in which important news is quickly supplanted by new developments elsewhere.” (p. 152). These types of observations play an important role in the academic literature as they provide a healthy balance vis-à-vis the wave of positive commentary surrounding social media, especially in light of the Arab Spring.

In contrast, Joseph also sheds light on the supporters of social media and the important role it plays in promoting social and political change. One argument proposed that more informed political views are formed thanks to the wide accessibility to information as made possible by the Internet. Not only is there increased access to information, but there are also tools that allow for fruitful conversations and debates, and that these are the steps required to create real political change. Joseph points out “social media also expands access to evidence of human rights abuses beyond that offered by the mainstream media and non-government organizations (NGOs), and penetrates veils of secrecy thrown up by repressive regimes.” (p. 153). In the context of the Arab Spring, social media-driven protests had existed even prior to the revolutions. This was made evident by government and police efforts to monitor and thwart a number of attempts and protests that were organised online. Joseph notes that although the so-called “Twitter Revolutions” were not as successful in other countries, what happened in Egypt in Tunisia proved that the long-term stability of regimes could be shaken (p. 163)

Despite some of the seemingly positive effects, other detriments to positive

online communications are also highlighted in the article. False information can be spread on social media just as easily as reliable information (p. 172). Joseph used the example of a Scottish student who was posing as a Syrian blogger as a reminder of how easy it is to spread lies in cyberspace and how it could also undermine the efforts of real online activists. The author also considers the role played by the major private corporations who own social media outlets. The responsibility of these companies towards their users was placed under scrutiny when reports surfaced that some of them had cooperated with authoritarian governments. Advancements in technology have given repressive regimes more tools to undermine the efforts of activists. The author concludes by reiterating that increases in unfiltered connections and access to information must have some beneficial consequences but cautions against blindly promoting social media as a tool for positive political change without acknowledging its possible dangers and drawbacks.

Herrera (2012) also considered the importance of social media but from a wholly different perspective. The author chose to examine youth in the digital age and how this was affecting the ways they learn, interact, and exercise citizenship in Egypt, as opposed to the majority of the research on the topic that predominantly focused on North American and Western youth. This generation has been described in many ways with terms such as ‘millennials’ or ‘Gen Y’, but Herrera prefers “wired generation” because it better explains the communication processes of this high-tech generation. It is a process that often leads to a restructuring of the cognitive structure of its users and this in turn affects their views of citizenship and their

relationship with the political and social systems they belong to (p. 335). This generation in particular is different from other generations in how it uses and experiences digital communication. They are not passive recipients of media messages, they create and interact, and are more active participants in the communication process.

Through a selective sample of participants, the author conducted a total of 28 biographical interviews between 2006 and 2011. The group were all Egyptians, aged between 16 and 30, and the interview was designed to discover how they incorporate new media into their daily lives and how the internet has been shaping their individual notions of citizenship. In this sense, the researcher was attempting to better understand the connection between personal identities and how this related to the generational sense of community, particularly through online communications. This type of research is particularly important in a country where the majority of the population is under the age of 30 and that they constitute the majority of social media users in Egypt. They also face a particular set of challenges that include economic insecurity and social injustice that can lead to difficulty in securing a job. These are challenges of the new age that are not addressed by their schools and universities; and to make matters worse, youth are not taught how to participate in the political process in a meaningful way. "Yet, as this study shows, these youths have taken it on themselves to seek out such development through more informal, horizontal, and globally informed networks." (p. 338).

For Egyptian youth, having access to the internet meant much more than just

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access to information, it was access to a different worldview. Through access and interaction to a variety of global views and images outside the environment they were used to, a large number of young people underwent a cultural revolution that altered their mentality and worldview (p. 341). Egyptian youth felt they had a newfound power, an ability to create an alternative reality that could counteract any misleading facts or representations that were being circulated in mainstream media. This was making them more active in terms of political discussion and organised political action, it also awakened within them a desire to find out more. Contrary to popular belief, this is a generation that has a thirst for news with a 2008 survey reporting that 74 percent of young Internet users in Egypt using it to stay up-to-date with the news. This meant that a lot of youth that may have otherwise been apolitical took advantage of this communication tool to gain political sensibilities (p. 343). The author points out that this emboldened Egyptian youth for the first time to challenge the status quo with the new communication tools at their disposal.

Meraz and Papacharissi (2013) explored how traditional media theories can be applied to this young generation of Egyptians by conducting research on networked gatekeeping and networked framing on Twitter. They used multiple methods to analyse approximately one million randomly sampled tweets over a month long period, they were considering factors such as network, content, and discourse analysis. This was done based on the perspective that Twitter has recently developed into a news sharing platform where there are collaborative efforts between activists, independent bloggers, and professional journalists and news outlets to create an online news hybrid of sorts. Certain hashtags play a particularly

important part in the process, “organically developed hashtags can attain the characteristics of spontaneous interpersonal conversations or social awareness streams, deviating from the organizational logic of mainstream media news feeds.” (p. 140). With this in mind, #Egypt was the hashtag of focus in this research. The research found that applying framing and gatekeeping to an online network such as Twitter can reveal shifts in power structures, hierarchies, and the relationship between elite and non-elite media users. Ordinary citizens contribute to gatekeeping and framing by either filtering or amplifying information in a horizontally aligned network of news sharing.

Similarly, Sakr (2013) conducted a micro-study on the #Tahrir hashtag within the scope of digital humanities and its effects on the Egyptian uprising, using new multi-dimensional technology with the hope that other researchers continue along this path of research. The author argues that new forms of communication have contributed to the articulation of the national identity of its users. The evolving national identity was partially formed as a result of popular imagination created through a series of stories, symbols, and other cultural productions. This national identity and its cultural logic was being displayed on collaborative online platforms, unlike the way it was articulated throughout the second half of the twentieth century through cinema and television (p. 248).

The author in this case was more concerned with how research in this field is conducted rather than presenting new data through their own original research. The article aims to point out the weaknesses in the existing body of research, which

is often either purely quantitative or qualitative in nature at a time when the situation requires a more comprehensive approach. The author points out that the research being conducted on a mass level is being carried out either by foreign entities or unreliable local ones; and that foreign entities are often supported by policy-makers that are trying to protect the interests of current global powers (p. 253). Other limitations include language, with very little research combining both English and Arabic content in its analysis. Most research also tends to be based on limited samples with data only spanning a few weeks at a time. "Even when a greater quantity of data is used, the techniques employed focus on network structure and frequencies rather than the concepts and ideas." (p. 256). The author proposes that similar research be more focused on cultural analytics within the fields of digital humanities and new media studies.

While analysing particular hashtags within the context of the Arab uprisings is important in understanding the dynamics between new media and political activism, some researchers have chosen to focus on the overall effect of information and communications technology on the Arab world's transition to democracy. Aman and Jayroe (2013) point out that new methods of communication were used to circumvent traditional, state-owned media who were typically more interested in protecting the rulers and often misled the Arab people. They also consider how these digital democracies in the form of online activists face various attempts to silence them. So while the Internet and blogosphere have helped in exposing the unjust prosecution of bloggers, it also resulted in Arab security forces shutting down certain websites and Internet cafés (p. 318). The authors acknowledge that it wasn't

these new technologies alone that helped spread the message and that they must be analysed according to the existing communication culture, “the combination of communication technology and social media have expanded the already widely used word of mouth in the Arab culture of oral communication in addition to the popular rumor and gossip mills among the uneducated masses.” (p. 321)

Aside from garnering support for and organising protests, another important role played by new media was to expose the abuses of the regime, whether they were human rights abuses or attempts to stifle freedom of expression. The most popular example of this of course would be Khaled Said who was murdered at the hands of the authorities and this led to the creation of the most popular revolutionary Facebook group, “We Are All Khaled Said”, but another glaring example was this deliberate spread of misinformation:

“Former Egyptian president Hosni Mubarak’s National Party employed many young people to perform government-sanctioned and financed operations, such as promoting his plan of—upon his death—bestowing to his elder son Gamal the next presidency of the country. The government was engaged in improving the picture of Mubarak and the governing National Party by establishing thousands of fake accounts, groups, and pages for the purpose of supporting Gamal Mubarak and his political party, and also for attacking leaders of the opposition like Mohamed El-Baradei and Ayman Nour. The counter group “6th April Youth Movement” uncovered the fake accounts and published the list to warn Facebook members.” (p. 323)

The authors continue to explain and highlight incidents of repression against online activists by a number of Arab countries. They point out that several MENA

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governments had discovered the potential threat of new media and that this was evident in their exaggerated responses (such as the shutting down of all mobile and internet services on January 28th, 2011 in Egypt). These efforts ultimately failed as citizens found more creative ways to broadcast their messages to each other and to the world. Finally they argue that these new technologies have become the weapon of choice for citizens looking to bring about political and social change in the Arab world, and that this is the only way they could force their respective regimes to bend to their will.

NEED FOR COGNITION

Drawing from the field of psychology, Need for Cognition (NFC) has become an important addition to media studies and an insightful method for understanding the motivations for media consumption. In some cases, Need for Cognition can have predictive value as well as being indicative of message effectiveness. The most basic definition of NFC can be described as “the tendency for an individual to engage in and enjoy thinking.” (Cacioppo & Petty, 1982) Although the concept has a simple definition it is also rooted in other individual differences that should be taken into consideration, such as levels of education and personality traits.

One of the first experimental investigations into NFC was conducted by Cohen, Stotland, and Wolfe (1955). The experiment was designed "to demonstrate the existence of a need for cognition and to test the effects of differential ambiguity upon people with different degrees of strength of need for cognition." (p. 291). The sample of participants was split into two groups, one exposed to a structured stimulus and the other an ambiguous stimulus. The study found that the degree of ambiguity in information is more important for people with high NFC and that there was no relationship between need for cognition and need for achievement. Although the research conducted used a simplistic approach in studying NFC, it helped pave the way for the topic. They were the first to conceptualise NFC as “a need to structure relevant situations in meaningful, integrated ways. It is a need to understand and make reasonable the experiential world” (p. 291). At this stage, research on NFC was limited to the field of psychology and had not been applied to mass media or communication.

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The concept of NFC through personality and social psychology research was developed throughout the 1950s, but it was not until 1982 that a scale was developed for measuring it. Cacioppo and Petty (1982) built on the original idea of knowledge acquisition and usage by developing and validating a scale that would display the differences between people with high need for cognition and those with low need for cognition. The samples chosen to represent those two groups were a selection of university faculty, undergraduate students, and assembly line workers. The scale was used on these samples to conduct four different studies. The studies served in teasing out undesirable variables that may have been confounding the results. The results found that people with high NFC were less likely to be close-minded and is an indication of higher general intelligence (Cacioppo & Petty, 1982). When NFC was considered, researchers were able to distinguish between attitudes towards simple and complex versions of a cognitive task, where subjects with high NFC found complex cognitive tasks more enjoyable (Cacioppo & Petty, 1982).

The interaction between levels of NFC and message processing was taken a step further through a study on framing biases. Smith and Levin (1996) sought to extend the literature on choice framing effects while using NFC as a dispositional variable. This study took NFC beyond the realm of message choice and perception and into the field of decision-making. It also showed that NFC could be used to predict how susceptible individuals are to attempts at frame of reference alteration. After completing an NFC scale, the participants (a sample of 108 psychology students) were given different choice problems, the first experiment involved a monetary task and the second one was a medical decision-making task. The results

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showed individuals with high levels of NFC were less likely to be influenced by a change in the frame of reference (Smith & Irwin, 1996).

Delving into Need for Cognition provides further evidence that study results are not uniform, depending on the variables taken into account. This was evident in a study that examined print media perception through the interaction between NFC, source credibility, and communication strength (Kaufman, Stasson, & Hart, 1999). Participants read articles from high and low credibility sources, which were the Washington Post and the National Enquirer. The participant pool consisted of 140 undergraduate psychology students, who filled out a Likert-type questionnaire after reading the articles. Results indicated that people with high NFC did not have their impressions affected by source credibility, while people with low NFC had a more positive response to a high credibility source (Kaufman, Stasson, & Hart, 1999). This could explain why marketers spend millions of dollars every year in endorsement deals since credibility does play an important role in message perception. It also indicates that marketers do need to take their target market and levels of NFC into consideration before deciding on a source to deliver their message.

Areni, Ferrell, and Wilcox (2000) decided to take a different approach when considering how the source of a message affects people according to their levels of NFC. The authors conducted a laboratory experiment to examine the extent to which the opinions of others influence individuals. The research found that group opinion influenced both high and low NFC individuals in the direction of the majority but that in high NFC individuals, the effect was mediated by topic-related arguments. The experiment was conducted on 282 university students over three

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administration periods during the semester to study the effects of group opinion over time. The experiment simply asked for student opinions on a number of topics and in the second session, the researchers added the opinions of others to the information presented to the students to see whether it would affect their own opinions. By the third session, the participants were also given group opinions with explanations and a summary of the reasons behind them. Splitting the experiment into these three stages showed that individuals with high NFC were only influenced by group opinion when it was supplemented with topic-relevant arguments, despite the fact that their attitudes are generally more resistant to change.

Another important media trend has been the sharp increase in television viewership across the world. A study conducted on German students found that this was a form of escapism and that people with lower NFC levels view more television (Henning & Vorderer, 2001). The concept of escapism was used to give television use a psychological and sociological perspective but since the sample only consisted of university students, the research was unable to consider the effects of age and formal education on these results.

Age and education are two factors that play an important role in analysing the effectiveness of political communication. This is particularly true of the relationship between education and political knowledge. In a study attempting to prove that there has been a recent reversal in the knowledge gap, NFC was examined as a moderator of this relationship. The reversal claims that in people with less education, the relationship between consuming television news and knowledge is stronger than in those with more education (Liu & Eveland, 2005). The study used

data survey, pre- and post-elections, from the 2000 and 2004 American National Election Study. There were 1,066 survey respondents and 1,807 interviews were conducted. The results found that the influence of television news and newspapers differ according to individual differences in education, NFC, or campaign interest (Liu & Eveland, 2005). This study showed that the effectiveness of news messages relies on a variety of relationship moderators that ultimately incur individual differences in message perception.

Whether or not audiences trust a message is a subject that has become more prominent in the last few years due to several factors such as increased audience skepticism and the emergence of new forms of media. In order to explain the associations between news skepticism and exposure, Tsfaty and Cappella (2005) used an analysis of online surveys and discussions that are part of a project called the Electronic Dialogue (ED). The research finds people will consume news in spite of their skepticism when the skepticism is not relevant to their motivation for news exposure (Tsfaty & Cappella, 2005). The findings show the interaction between different needs and how they influence exposure to news media. Since news media can form an important part of how we perceive the world, it is important to look at the factors that influence our exposure to it.

Although NFC involves complex psychological processes, its original form of measurement was unidimensional in nature. In an attempt to refute the unidimensionality of the original and abbreviated versions of the NFC scale, one study employed three exploratory studies to reveal multiple dimensions in the scale (Lord & Petrevu, 2006). The researchers found that four dimensions consistently

emerged during the study and they were enjoyment of cognitive stimulation, preference for complexity, commitment to cognitive effort, and desire for understanding. The first study was a modified replication of the validation of the original scale, which was completed by 195 undergraduate students. The second study was a follow-up on the first using another data set to see whether multiple dimensions would emerge, it was administered on 144 business students. The third study collected new data from 244 undergraduate students to assess the generalisability of results from the short version of the scale. This study is incredibly significant in its theoretical expansion of the original concept and the scale used to measure it.

Other studies have also looked at advertising recall through NFC but taken a more specific angle such as sexual appeals. The results of such a study found that both sexual and nonsexual ads are more thoroughly processed by high-involvement consumers, whereas nonsexual appeals are favoured by consumers with high Need for Cognition (Putrevu, 2008). NFC was assessed through 99 undergraduate students and some of the factors measured included recall, recognition, and cognitive responses. The findings provide interesting insight into the message selection process of consumers with low NFC. That particular result was not surprising but it was important to establish a connection between cognition and sexual appeals especially considering how sexualised media advertising has become in recent years.

In another attempt to directly link levels of NFC with media effects, Petty, DeMarree, Brinol, Horcajo, and Strathman (2008) hypothesized that depending on

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the subtlety or blatancy of priming, levels of NFC can have opposite implications for priming effects. They argue that those with high NFC are more likely to be affected by subtle primes because it is easier for them to activate constructs, that their higher levels of thinking make an activated construct more likely to bias judgment, and that consequently this thoughtfully formed judgment has more potential to affect behaviour. This is very different from people with low NFC, who are less able to correct for biases in blatant primes and are consequently more likely to be affected by them. A number of studies were conducted to prove this hypothesis on a sample of university students who completed a questionnaire that included an NFC scale followed by experiments to analyse the effects of priming on them.

This is an important finding in tailoring messages because it shows the importance of taking into consideration the audience's level of NFC. Beyond attitudes of message complexity, it is also important to question the processing ability of those receiving a particular message. See, Petty, and Evans (2009) examined this issue in a study where 37 psychology students were asked to complete an NFC scale and a distracter questionnaire, followed by two experiments. Results indicated that individuals with high NFC are more capable of processing complex messages (See, Petty, & Evans, 2009). The study reaffirms the positive relation between NFC and information processing.

While it has been established that NFC is related to engaging in and enjoying cognitive processing, few studies have attempted to differentiate the concept from similar traits such as personality and intelligence. The relationship between these concepts was studied by Fleischhauer, Enge, Brocke, Ullrich, Strobel, and Strobel

(2010). They conducted a number of studies on university students using NFC scale and personality and intelligence tests to find correlations between these traits. They observed that NFC was positively correlated with openness, emotional stability, and traits related to goal orientation. Through their analysis they also found that NFC is predictive of attention allocation and drive-related behaviour. In relation to intelligence, the study found that NFC was more associated with fluid aspects of intelligence. Overall, the research successfully provided evidence for the conceptual autonomy of NFC.

Another study that attempted to connect NFC with personality traits was conducted by Njus and Johnson (2010), they specifically examined whether NFC could be used as a predictor of psychosocial identity development. The researchers gave 200 college students a series of identity related tests as well as the NFC scale and their results indicated that students with higher NFC had higher psychosocial identity levels. They describe different stages of identity development through a process of self-exploration that ultimately leads to an individual's cohesive sense of self. Those who have achieved a sense of identity through self-exploration are more likely to feel secure with their sense of self in comparison to those who achieve a sense of identity by internalising the values and beliefs of others and that this second group is more likely to have low NFC. They also point out that NFC is a variable that can change over time depending on the experiences people go through in their lifetimes.

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It's been shown that NFC can also provide relevant insight for those designing messages and for scholars trying to understand their subsequent effects. This applies to message complexity, delivering news through various forms of media, and source choice and credibility. Another industry that could benefit from NFC studies is the advertising field. One study investigated the causal relationship between personality factors and cognitive responses, and the relationship between cognitive responses and purchasing intentions (Kuo, Horng, & Lin, 2012). This research is significant since it makes a contribution to attitude research through the identification of advertising recall as an explanatory variable. The results found that participants had better advertising recall when they have high NFC. This translates to higher purchasing intention in people with better advertising recall. 260 undergraduate students participated in a factorial experiment design for extra credit, and their NFC scores were collected prior to the experiment.

One study that emphasized the importance of individual cognition in relation to political communication was conducted by Arceneaux and Vander Wielen (2013). This study focused on the different motivations individuals have when evaluating political information in the US. A sample of over 1,000 respondents was chosen to participate in an online survey and participants chosen identified themselves with either the Democratic or Republican Party. The results found that people with higher levels of NFC had decreased approval of the party when it was the subject of negative information (Arceneaux & Vander Wielen, 2013). This is significant considering that a lot of political communication is targeted across demographic

lines rather than levels of cognition, even though they clearly affect how people perceive political messages.

While that study was looking at subtle differences in the messages themselves, a study by Fleischhauer, Strobel, Enge, and Strobel (2013) aimed at finding the subtle differences in audience responses. They did this by conducting a study to expand on how Need for Cognition is measured using different NFC-Implicit Association Tests (IATs). It stressed on the value of indirect measures beyond individual self-reports since people's descriptions of themselves are not always accurate or entirely truthful. The researchers found that using NFC-IAT had more predictive value when it came to more spontaneous behaviour (Fleischhauer, Strobel, Enge, & Strobel, 2013). These tests were administered on a sample of 150 students and helped in identifying the differences between implicit and explicit modes of information processing. However the correlations between both were somewhat undermined by extra-personal associations and perceptions of the 'other'. Although this limitation was mentioned in the study it still acts as an indication that the researchers were unable to control for some unwanted variances. That does not however take away from the fact that this type of research forces us to look into cognitive motivations and behaviour on a deeper level.

Bridging between psychology and media studies through NFC has definitely provided us with a more comprehensive understanding of media effects. It provides support for the predictive capabilities of both the rational and psychological models and in some cases can also help in predicting individual behaviours. Findings of NFC research often provide important insight and implications for psychologists, media

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researchers, media outlets, and advertisers alike. All the above-mentioned fields would certainly benefit from higher application of NFC studies.

RUMOUR THEORY

The concept of a rumour poses a unique challenge for academics. Unlike other mass media theories that use terms that are almost exclusively used in the academic community, the word “rumour” is commonplace in the public and media lexicon. The major difference of course is found in the usage of the term, whether it has an absolutely negative connotation or whether it should be used in a more fluid way to allow for varied interpretations. Despite the lack of agreement on definition, there has been consensus over the idea that rumours serve some sort of function or purpose in society. The most basic definition of the word according to the Oxford Dictionaries is “a currently circulating story or report of uncertain or doubtful truth.”

Several studies chose to consider rumour as more than false information that spreads like a virus. According to Miller (2005), it has been important for naturalistic research to move beyond viewing rumours as an infectious disease that is spread between friends or strangers without discrimination. They are instead increasingly being identified as a mode of communication in societies (p. 515). We have to start accepting rumours as a normal part of social communication and that they require a deeper understanding.

The importance of this acceptance means we would no longer be looking at rumours as anomalies, that they are in fact symptomatic of a society’s workings. Miller argues that would be impossible to understand rumours without first understanding their context and the processes that led to their creation in various social situations (p. 516). That is because they often come about when a community

feels threatened or uncertain and rumours can bring people together to address these concerns. This line of thinking could mean that we can better understand a society by also looking at the rumours that were popular with its population.

Bronner (2007) states that “rumours have a social purpose, they reveal something about our shared questions and anxieties, they are a kind of group metalanguage” (p. 84). This means that in order to find the starting point or origin of a rumour we should acknowledge that they do serve some sort of social purpose and don’t exist in a vacuum. This function also ultimately influences how the rumour evolves and how quickly it spreads. In this sense, for a rumour to continue serving its social purpose, it must go in the direction that addresses the need that led to its emergence in the first place. To further clarify this point, Bronner goes on to create an interesting comparison between rumours and the theory of evolution, stating, “rumours are ‘adapted’ to their social environment” (p. 84). Bronner conducted three experiments to observe how the selection process occurs in what is referred to as the “cognitive market”. To simulate this selection, the following three criteria were used: evocation or “the ease with which individuals alone or in a group, call up this or that scenario” (p. 86), credibility, and recall. Each criterion was measured through a total of 144 one-to-one interviews and 60 group interviews, with each group containing four people.

When presented with a puzzling scenario such as discrepancies in the number of deaths in a particular city district in comparison to the average number of deaths that occur within a population and the possible explanations, respondents seemed to favour the solution that was more dramatic, made a mental impact, and

may have been a bit amusing. Respondents rarely veered towards the solution that logically explained the scenario better than the others, making it very difficult to accurately predict which direction social imagination would take. However the results did provide us with some interesting insight on how this process works, “in general we see that absence of context tends to sharpen the imagination and the utterances” (p. 93).

These results are a strong indication of the importance of context in a story since lack of context gives greater room for the collective imagination to go towards solutions that are potentially less logical. Not only will audiences not be receiving the full picture but information transmitted about the story is then more likely to be altered, and ultimately contribute to the spread of rumours. This is a situation that is more likely to occur when these conversations happen within a group, “people in a group (of four) are more imaginative than individuals alone” (p. 95). Instead of dissuading others out of implausible explanations, it would appear that people in a group only fuel each other’s (and their collective) imaginations.

Rouquette (2007) examines the social and psychological motivations behind rumours. In this study, rumours are viewed as a solution to a collective problem, but this solution is often “circumstantial and wholly marked by mental improvisation.” (p. 36). This is where the author finds an overlap between rumour theory and problem theory, by assuming that rumours arise in response to and as a possible solution for a problem. In this perspective, rumours are seen as part of our social and cognitive mechanisms.

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The article does not necessarily view rumours as being negative but attempts to make us view them in a different and more complex light, it helps us in understanding the continuous process of social thinking instead of limiting rumours “to their status of monstrous singularities” (p. 36). This perspective is achieved by analysing the specific social circumstances that led to the creation of a rumour. The author argues that rumours can often be traced back to an “ill-defined problem” that is perceived by the community.

The notion of control is brought into question as a result, and the breakdown of it can significantly contribute to the rumour. Control in a community is indicative of social interaction, group links, and how the society as a whole is organised; making the whole process very personal to the individuals involved. The message of a rumour usually speaks to people on an individual level rather than it being viewed on a theoretical level. The combination of these factors is what leads to the strength of popular conviction that can be held by a rumour (p. 39). This allows rumours to move from the realm of triviality to being an important measure of social bonds. Consequently, the more people can personally and practically relate to the information being circulated, false or otherwise, the more it will spread. Through this line of thought, rumours can be studied more objectively, the author’s purpose was to spotlight the importance of a rumour’s “place within the continuum of habitual forms of shared knowledge” (p. 42) and to emphasize that they are a part of normal social interactions.

In a different attempt to help us reconsider our definitions of what a rumour is, DiFonzo and Bordia (2007) outlined the differences between rumours, gossip,

and urban legends. This came as a result of their observation that laypersons and scholars alike used these terms interchangeably. They define rumour as circulating statements that although unverified are relevant to people by serving the function of helping people to manage risk or make sense of a situation. It is also argued that they arise in terms of danger, uncertainty, or in situations that pose a potential threat to the community involved (p. 19). This definition is elaborated on through their focus on context, function, and content of such information. Using similar mechanisms they go on to clarify the definition of gossip by claiming that it contributes to networking functions such as entertainment, as well as changing or cementing group membership, cohesiveness, and power structure. But it is described as social talk about individuals without any emphasis on the verification of the information it involves (p. 25). Whereas urban legends take on more moral implications and contain themes that can be connected to modern life, they are usually stories about events that are comedic, horrible or odd in some way (p. 28).

The authors continue to stress the psychological needs or threats that lead to rumours arising. People are motivated by their need to understand, especially when they feel threatened or there is an absence of reliable sources of information. This process of understanding starts at the individual level, when that doesn't work, "they begin proposing, discussing and evaluating informal hypotheses with one another – collectively" (p. 21). The article continues to clarify that rumours give people a sense of control in times of uncertainty, and also pointing out that the basis of a rumour is not solely built on false information but that must also be

accompanied by insecure evidence and a lack of complete confidence in the information.

In another article that looks at the psychological elements of rumours and why they exist in society, Renard (2007) analyses the different types of rumours and the purpose they fulfill for people. First there is a distinction between affirming and denying rumours. Affirming rumours are the most common type and they “state the reality of imaginary facts”, denying rumours “deny the reality of established facts” (p. 43). The author gives several examples of such denying rumours including the bogus moon landings, Elvis is still alive, and others. It is then explained that there are three main characteristics of denying rumours: hypercritical thinking by claiming allegiance to historical criticism; revealing another reality that could be illusory but only because the proof is being somehow suppressed; and denouncing a plot because it is being controlled by an organised and powerful group that is probably lying to serve their own interests.

Although this particular piece focuses on the more rare types of rumours, they are the examples that people can easily associate with the word “rumour”. Rather than dismissing believers in these rumours as just being crazy or conspiracy theorists, the author highlights the very real and not uncommon psychological factors that lead to the belief in them such as mistrust in official sources of information. This is another confirmation of the idea that rumours are not anomalies; the concept of cognitive relativism or that all forms of knowledge are subjective is gaining traction. It has reached the extent that rather than discussing things within the dichotomy of true and false, we views various interpretations of

reality as equally valid concepts (p. 55). This lack of distinction between true and false, reality and non-reality, has been compounded by the web and our online social interactions. It becomes even harder to distinguish between fiction and reality when several public scandals involving the government or media means the absence of credible and official sources of information. This makes people more dependent on each other for news and gives more room for rumours to spread. The author argues that alternative or unofficial sources of information are starting to gain credibility and are now competing with them because of the decreasing trust towards official networks. (p. 55).

The absence of trustworthy information creates an environment that could lead to the creation of a rumour and a lot of the blame in this situation normally falls on the government or other official authorities. Taieb (2007) takes an unforgiving look at the role played by media in the spreading of misinformation. Taieb draws attention to the idea that many rumours originate and are propagated by the media even though they are so said to have been spontaneously generated by society (p. 107).

The television and print news media participating in the process of rumour spreading by circulating information before checking its source or credibility has a number of negative consequences. These include an increase in the number of rumours in circulation (p. 108); it creates the impression that more rumours exist in a society than there actually are; finally and most importantly, "it leads to an impoverishment of language and of analysis, cramming heterogeneous information phenomena into a single catch-all type, which in turn leads to a standardized

approach to these” (p. 108). It is also pointed out that the frequency of the use of the word “rumour” is very high, and journalists often use it to distance themselves from what they are reporting and consequently be less responsible for the information that is given. The author concludes by saying that the participants of rumours in journalism usually use them as a tool in the larger political process, and as such take on more dimensions than the simple definition of a rumour (p. 123).

There has been more discussion about the social motivators behind a rumour than the psychological factors. Einwiller and Kamins (2008) examined the impact some of these psychological elements have on the effectiveness of a rumour. Regardless of the weakness or strength of a rumour’s argument, a person’s tendency to refute an argument is more powerfully influenced by that individual’s identification with it. They are essentially revealing that believability is dependent more on individual psychological factors and motivations rather than the strength or weakness of an argument.

The level of consequence for a recipient strongly influences belief in a rumour, whether the information included in it has a strong bearing on this individual. This personal motivation also influences how effective attempts at refuting a rumour are (p. 2249). This is what the author means by identification with the information, it is built on the cognitive and emotional links that an individual forms within a society. “Disidentification involves a person perceiving a sense of separateness from the entity and feeling close to those who share this negative perception.” (p. 2250). Identifiers on the other hand have more positive feelings towards and sympathy for the entity in question. Both categories involve

very strong attitudes and beliefs which are very influential in the perception of rumour. That means that neutral individuals are more likely to be swayed by the strength of an argument rather than its affinities to their personal views.

Three experiments were carried out to measure the validity of the authors' hypotheses; they were a. disidentifiers will be influenced by argument strength and are more likely to systematically process a refutation; b. identifiers are not influenced by any kind of refutation; and c. neutral individuals are not influenced by argument strength but will be influenced by refutations in general (p. 2554).

The studies confirmed the researchers hypotheses and provided valuable new insight. Previously, there was confusion as to why refutation of a rumour was only successful part of the time; this study shows that the effectiveness of refutation is dependent on the level of identification with a rumour. Authorities can greatly benefit from this knowledge in times of political, financial, or environmental crisis. In times of crisis, there is fertile ground for rumour spreading and in the case of harmful information it would be important for authorities to know how they can stop its dissemination in society as quickly as possible.

Understanding how a rumour originates and then the patterns of its spreading in society is critical in emergency situations where public opinions and beliefs could seriously influence the wellbeing of a community as a whole. Zhang and Zhang (2009) showed that rumours could have a positive effect in an emergency situation by reducing anxiety created by the crisis and lack of information from media channels. What makes this particular research interesting is that it frames rumours in a relatively positive light, and shows how they can lead

to situation stability in times of crisis. It begins by listing various definitions of a rumour but focuses on how they are sometimes used as a method for collective problem solving. In an emergency, where there is a vacuum of information, people may resort to rumours as a way of making sense of an extreme situation.

In this paper, rumours are viewed as accounts or explanations in circulation in informal channels without validation. They can contain both a degree of falseness and truth and are usually pertaining to a crisis that affects the public (p. 4159). The authors accept that rumours fulfill a social purpose when the public is in dire need of information in an emergency situation. The findings of this study had key implications for authorities to consider during the development of an emergency. The findings included that rumours can provide a channel of information that can help in coping with the situation; at the initial stages, rumours can provoke the public to react or simply become aware of the dangers; and finally, the spread of rumours can actually have a delaying effect on emergency development.

Researchers have noticed a difference in patterns between rumour spreading in a purely social context and rumour spreading electronically through social networks. Mathematical models have been developed and/or modified in order to study this complex phenomenon. Chierichetti, Lattanzi, and Panconesi (2011) used this technique to study how information is diffused through social networks. The authors looked at the role played by different groups within a community in spreading a rumour. The roles played by these different groups were essentially divided into either relaying information or being originators of rumours. The authors found there exists a core group of people in a social network that are

collectively capable of reaching a large portion of their community in only a few steps. These VIPs or information gatekeepers, the authors argue, are important only for relaying information and are not always the source of a rumour. Instead, the authors found that rumours would spread across a network regardless of whether or not this core group relayed the information because they would be asked about what they know anyway. This shows that focusing only on the origin of a rumour would not be sufficient in understanding it, that we should also be looking at the ensuing conversations and how the information is diffused through a social network after it has already been introduced.

Zhao, Wang, Cheng, Chen, Wang and Huang (2011) chose to look at how “forgetting mechanism” affects the spread of rumours online. Unlike the previous paper, this one views rumours in a less favourable light, the authors argue that most rumours lead to economic loss or a psychology of panic within a society (p. 2619). Using a mathematical model akin to the ones used in tracking a virus epidemic in a homogenous blogging network, the authors conducted their study and came up with three types of people involved in the rumour process: spreaders, stiflers, and the ignorants. Spreaders will accept a rumour based on its level of importance and relative credibility, stiflers will stop the dissemination of a rumour, while ignorants are the individuals unaware of the rumour and consequently cannot spread it. This paper is important in its consideration of two important factors in the study of rumours, stifling and forgetting. They found that the behaviour of stiflers does influence rumours and that the forgetting mechanism actually weakens the influence of a rumour. Through this study, they have found characteristics that

inadvertently (in the case of forgetting) or actively (in the case of stifling) slow down the spreading of a rumour.

Building on the idea that rumours tend to grow as a result of social thinking and interaction, Haas and Levasseur (2013) examined the links between forgetfulness and the transmission of information in a community. Through a qualitative study that combines documentary research and focus groups, the researchers revealed that recollection, memory, and rumours can be very revealing of a society's sense of identity and history.

The authors analysed a rumour that changed the history of a particular town, the residents of which had forgotten the original incident and instead replaced it with another inaccurate story. The town in question had always been at risk of flooding and its people were very closely linked to their surrounding environment and consequently were aware of this. But when a large flood that devastated several thousand homes occurred, a rumour was spread that Paris had sacrificed the town by draining the rising waters towards it in order to preserve the capital. It was easier for the townspeople to blame a more powerful player for their plight than to acknowledge that the habitat they so dearly cherished was a high-risk zone. "At a collective level, memory, forgetting and identity are intrinsically linked" (p. 62).

When the residents of this town were faced with a bad situation, rumour came to be used as a coping mechanism and fulfilled what the researchers refer to as the classic elements of a rumour: conspiracy theory, designation of a scapegoat, and the mobilisation of the disaster victims group. Clearly this was an extreme case, but as stated in other studies, rumour was used to fill gaps in knowledge. It was

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taken a step further however when this rumour was used to fulfill another social purpose which was to collectively forget an unpleasant memory and avoid the pain that comes with it.

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PREMISES

The events of the Egyptian revolution collectively impacted a nation, shook many people's views and belief systems, and allowed for unprecedented levels of political discussion, awareness, and participation. This study will explore the validity of the following premises: a. NFC can be expanded to apply to a society as a whole and not just the individual; b. the 2011 Revolution created an increase in the levels of NFC in Egyptian audiences; c. NFC is not a general trait but can differ according to an individual's personal interests; d. rumours can be viewed as serving a particular function in society; e. the mechanism of how and why rumours spread in Egyptian society are indicative of their function; and finally f. that the increase in NFC may have in fact increased the potential for rumour spreading in Egypt.

Analysing the roots and causes of rumours and how they are consequently combatted or reacted to can be very revealing of the nature of the relationship between the people, media, and the government. Rumour has played an interesting role in Egyptian culture throughout the 20th century and also went through a metamorphosis of sorts following the revolution. Throughout the last three years and as the media struggled to fulfill its purpose, an interesting relationship has arisen between NFC and rumour theory in Egypt.

Attitudes towards local media still remain shaky and have been in a constant state of flux. So while distrust towards the media during the Mubarak era arose from the belief that many of them acted as the state's propaganda machines, now they are often criticized for lacking objectivity and pedaling one agenda or another. In the continued absence of trust towards media and the lack of what can be considered

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truly credible sources of information, a fertile environment for rumour spreading is created. Combined with the increase in NFC, that desire to know and be more aware creates added motivation for seeking information from any source available.

Methodology

Applying NFC and rumour theory to Egypt is novel in both academic discussions and research. Finding sources to support the premises mentioned earlier was particularly challenging. Although there is sufficient research to describe the state of the media and the authoritarian control exercised over it by the government, accurate portrayals of the current state of the media is naturally still scarce due to the short timeline, and academia takes time to catch up with contemporary issues.

Through theoretical research on NFC and rumour theory and how they could both relate to post-revolutionary Egypt, it became clear that these premises could not be addressed through surveys or questionnaires. In-depth interviews seemed the most appropriate method since there is no existing data on levels of NFC or quantities of rumours in Egypt prior to the revolution to be compared to. Instead, interviewees were chosen based on their intellectual capacity to fully comprehend the theoretical aspects of this research as well as having intimate knowledge of Egyptian society and its interaction with local media. Theoretical explanations of the concepts in this study such as NFC and rumour theory were given to the interviewees prior to the interviews.

The interviewees all chose to remain anonymous as they are all media professionals and could be compromised by commenting on national or social affairs. The main concern was displaying a lack of objectivity by providing their opinions on anything media or government related, something essential for those

working in the field. This study's premises were not shared with the respondents so as to not influence their own opinions in any way.

The choice of interviewees was essentially a convenience sample based on the requirements mentioned above. They form a diverse, though small, group of respondents that include various age groups, nationalities, levels of education, and specialties within the media field. They were all asked the same set of questions and the full answers are included in the appendix.

Discussion and Analysis

The fine balance between authoritarianism and economic progress that Mubarak had created during the 90s started to slowly erode in the last decade of his rule. Mubarak had begun a number of ambitious infrastructure projects, there was increased foreign investment, and the country's GDP was steadily on the rise. In the years leading up to the revolution, police brutality was also on the rise and had reached an all time high; and with the advent of new technologies and social networking sites, people became more aware of this. Videos of police torture started to circulate online and were shared on mobile phones. People were finally seeing the reality they had been experiencing and hearing about for years but seemed to have been in a state of denial over. This, combined with other forms of oppression and lack of social justice, finally tipped the Egyptian people towards turning against its own government. This was not an anger that was created overnight; it had been slowly brewing for years but with no corresponding action until the possibility of change had finally presented itself on January 25th, 2011.

The complex power dynamic that existed between the government, the army, and big business marginalised the majority of the Egyptian people and contributed to their general sense of apathy. While there was a large population suffering from a number of social problems such as poverty, increasing food prices, and an increase in human rights abuses, the country's elite were simply getting richer and more powerful. The economic dynamics of the country also contributed to this widening gap between the rich and poor. This translated into a widely felt disconnect between the people and those in power. There was a general sentiment that this was a

country that no longer felt like it belonged to its people. Traditionally however, social injustice and hunger are two of the biggest catalysts in social movements or any form of political change. Yet most analysts had failed to predict this wave of protest that swept across the Arab world (Sallam, 2013).

The series of revolutions that happened in the Arab world forced political theorists back to the drawing board to revise the discourse that had once viewed the region as being immune to democratic change (Sallam, 2013). The unique circumstances and complexities of the Arab revolutions do not allow for a simplistic approach to understanding them. This line of thinking should be applied to our social understanding of the revolution, not just the political aspect of it. This could also help us to understand how certain media theories should be adjusted to accommodate all the radical changes that have been happening in Egypt since the revolution.

It is still up for debate who the main actors were in the revolution and the extent of their influence on it, this includes SCAF, foreign powers, the Muslim Brotherhood, and social media activists. Popular accounts of the revolution have been politicised by various actors and often to serve their own interests.

This was also indicative of the previously mentioned power dynamics that existed within Egypt. The interaction between the military, the government, and the media along with their powerful businessmen owners became apparent through the coverage of the revolution. Up until that point, the relationship between the people and the media involved information flowing in one direction and a lot of Egyptians had simply accepted the fact that the media in this country will almost always align

itself with the government and its interests (Hamdy and Gomaa, 2012). The culture of media fulfilling a particular role in society as the fourth estate did not really exist. Interviewee 1 confirmed this idea by saying “Until Al-Jazeera came around, there was no way for the regular media to serve its purpose the way it is done in the West.”

This was despite that fact that traditional Egyptian media in the 2000s experienced an unprecedented amount of freedom. To compete with the regional satellite channels, the Egyptian government granted private channels licenses to air (Sakr, 2010). The launch of Nilesat in 1998 and the completion of the Egyptian Media Production City in 2000 were seminal in this process. The government owned the physical resources necessary for these channels to operate. However, the process that led to the creation of private media channels operating from Egypt was not transparent, with a lot of the details of the deals that occurred between powerful businessmen and the Egyptian government being concealed from the public (Sakr, 2010).

We see here that the motivation was never to help in creating a plurality of voices in the media. It was simply a continuance of the mutually beneficial relationship that existed between the government and big business in Egypt. Major media decisions were unequivocally top-down with no regard to audience demands or creating a media environment that was inclusive (Sakr, 2010).

The rise in popularity of these privately owned satellite channels marked the beginning of the era of the political talk show in Egypt. Presenters of these shows quickly rose to celebrity status with some of the most notable examples including

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Mahmoud Saad and Mona El Shazly. Television has always been a very important medium in the lives of Egyptian people so it comes as no surprise that these media personalities quickly became opinion leaders and a source of information for many of their audiences. For the first time in their lifetimes, Egyptians were now exposed to platforms of political discussion and debate, though not in the traditional Western definition of the term.

The quantity of conversation increased but that did not mean a decrease in censorship (Sakr, 2010). There were simply more voices saying essentially the same thing but in slightly different ways, making government-friendly attitudes more ubiquitous. Although the dialogue on the privately owned satellite channels was a little more daring than that of state-owned channels, this little bit of freedom only created a false air of media freedom in a country that still had none.

This limited increase in freedom allowed for some criticism of the government. However, most of the criticism was limited to low-level officials. Critique of the regime started mainly with accidents that led to the loss of Egyptian lives such as train accidents and the sinking of a ferry in 2006. Television hosts started calling on governors and the relevant ministers to stand accountable for this callousness, or to at least make amends to the victims' families and try to prevent any such atrocities from happening in the future. They were more investigations into government corruption rather than a form of rebellion against authoritarian rule (Sakr, 2010). This explains why when an uprising did occur, it was extremely difficult for these media outlets to see beyond their limited scope of governmental support. They ultimately used frames that put the government in a positive light,

and posited protestors as thugs trying to undermine the stability of the country in the hopes that they could sway public opinion in favour of the government.

The frames used by the media during the revolution did not sway people's opinions as much as the outlets had hoped. Audiences started developing a more heightened awareness in the difference of coverage between the different news networks, channels, and newspapers. Consequently, the frames being used ended up being a source of judgment by the people to determine what their allegiances were. So while state media tried to downplay the violence and the number of protestors, people started resorting to external sources of information for a more accurate view, whether regionally from Al-Jazeera or internationally from BBC or CNN (for those well off enough to have access to them). The state's shutting down of Al-Jazeera's offices in Egypt confirmed the belief that they were doing a better job of covering the events and that they posed a risk to the state as a result. There was public outcry over this with more people expressing an increasingly more positive view of Al-Jazeera Egypt.

The dominant frame being used by semiofficial newspapers was a conflict one, attempting to dehumanise the protestors and make the revolution seem destructive and chaotic (Hamdy and Gomaa, 2012). This was more than a dominant frame, it was in a sense, rumour spreading. These semiofficial newspapers were not using verified accounts or sources in portraying protestors as thugs or foreign conspirators. Although we cannot say with complete certainty that this sort of coverage was ordered by governmental authorities, at that point in time, it simply did not matter. These institutions had been toting state rhetoric for such a long time

that they had begun doing it automatically without the need for orders or even encouragement. Self-censorship was common practice and the consequences for not doing this were already well known to journalists and editors (Sakr, 2010).

This did not necessarily lead to a further erosion of public trust, it rather confirmed the suspicion or belief that these newspapers had been aligned with the government all along. When they altered their frame to be more supportive of the revolution as the government's grip on the situation started to slip, it was viewed more as a cowardly attempt to align themselves with whichever side seems to be winning (Hamdy and Gomaa, 2012). This was a major contributing factor in the increase of social media usage. Interviewee 5 agrees with this concept, "the censorship of information is what led people to believe false information and now they have an alternative to that. So the current generation is reverting to non-traditional outlets."

The extent of the role played by social media in the revolution is still a strong point of contention for many. Self-expression is easier on social media but it doesn't necessarily facilitate action (Joseph, 2012). Unless you account for the motivation in knowing that others share your beliefs and might participate in any subsequent action with you. This puts more importance on the connection aspect rather than any real information shared. It is the conversations and debates that are had as a result of this information sharing that really matter. They lead to more informed and diverse opinions among its participants.

In the Egyptian context, this increased connectivity meant a lot more than a simple sharing of information or a call for political action. The Internet and all its

communication tools essentially formed part of the cognitive makeup of this new wired generation. It helped them to better understand their place within the political and social systems they belonged to and redefined their roles as citizens of their country (Herrera, 2012). This was at once both alienating and empowering. In understanding how other people live and seeing what they felt they should be entitled to, they also understood how underrepresented their interests were. It cemented the large gap that existed between themselves and the generation before them.

This is problematic in a region where almost two thirds of the population is under the age of thirty. It is also a region without the adequate infrastructure or educational systems to accommodate them and the challenges they face in a world that is increasingly connected (Herrera, 2012). This is where the Internet became a very empowering tool as well as one that could be used for self-development. Egyptian youth started to understand how social media can be used to express opposition. Contrary to popular belief, this was a generation of Egyptians that were very political online and not simply using the Internet for entertainment and games (Herrera, 2012). This was clear in the large numbers of users on opposition groups on Facebook and the fact that the terms Facebook or Twitter revolutions were first used to describe the online activities of Egyptian youth. It was their gateway to an alternative reality, one that allowed for the sharing of narratives that were different from the ones being circulated in official channels. Subsequently, any attempts to block these efforts were felt as though a lifeline had been cut, and more frequently than not backfired on the authorities (Herrera, 2012). Attempts to shut down social

media often led to more outrage and turned previously apathetic users into active ones.

As more and more people became active online users, the political discourse in Egypt increased exponentially. There was a newfound desire to understand and know. The findings of my in-depth interviews largely supported this premise. The biggest challenge in this particular case was the lack of research that applied NFC to Egypt. There are no studies that measured levels of NFC either before or after the January 25 Revolution. That is why this study relied on observation and analysis of existing literature on the subject. What was apparent to many Egyptians was that there was an increased interest in news and political developments. Whether or not that could be translated into an increase in NFC is a different matter. Trying to prove this point is particularly tricky since theoretically speaking, NFC has always been limited to individuals and has never been measured on a mass level.

However, there has been research that supports other factors that could be used in arguing that NFC can be studied on a social level. Even on an individual level, research has shown that levels of NFC can change over time and that they could be influenced by external factors.

After the respondents were given a brief introduction to NFC and some of the research conducted on it, they often came to their own conclusions about the topic while answering the interview questions. This provided for really interesting material especially in juxtaposition with the existing research on the topic. All the respondents agreed that despite the definition focusing on the individual, there was

a general increase in levels of NFC within Egyptian society after the revolution. But throughout the interview, they made it a point to differentiate between NFC and other individual characteristics such as intelligence, belief systems, and strength of conviction towards a particular topic. One particularly interesting argument that was made by more than one interviewee involved pointing out that despite the overall increase in awareness, a desire to know and understand more, as well as a willingness to participate in stimulating cognitive processes and discussions, these efforts were often misdirected or led to misinformed ideas and conclusions.

The reason for this is complex and is influenced by a number of factors. The respondents frequently referred to a lack of critical thinking in Egypt, but that is something they couldn't blame on Egyptians. Here the blame was attributed to the education system that focused more on memorising rather than analysing and developing the skills an individual needs to be able to formulate their own well-informed opinions. Interviewee 3 said "I get the impression that in the Middle East, [education] is more about repetition, learning facts rather than learning how to think." Another problem came as a result of the absence of the sources needed to satisfy high NFC in a productive manner. So although many people had a desire to learn and analyse the political situation in Egypt, the information they were being given was hardly ever complete and always presented one point of view vis-à-vis the opposing one. This dichotomy in beliefs and opinions being circulated in Egyptian media left little room for meaningful discussion that could be inclusive of everyone in the political spectrum.

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What really amplified this problem was the vilification of certain political groups throughout the last four years. So even within the limited dichotomy of political conversation, each side saw the other side as demonic and became almost combatant in their attitudes towards each other. The reason this was particularly dangerous in a country as politically volatile as Egypt, is that the lines between politics and religion were often blurred. Religion was and still is to many people a topic that is both very divisive and sensitive in Egypt. When it comes to the issue of God and Islam, very few people had the courage to suggest a completely secular state. This was never an option for a country as deeply religious as Egypt, so the differences would arise in the negotiations over just how religious the state would be. Interviewee 3 felt that this was also related to trust levels, “there is more trust towards institutions other than the government, things that are constant such as religion.”

The change that happened recently however was the distancing between how the Muslim Brotherhood practiced political Islam and Islam as a religion that already plays an integral part of the country’s legal, political, and social composition. For the first time in Egypt’s modern history, Islam entered the realm of political discussion on an analytical level. That however did not prevent certain tragic incidents of sectarian rife from happening in the short period leading up to and including the reign of the Muslim Brotherhood. In addition to religion being something that people are willing to sacrifice their life for, this is also a society that is emotional in their approach to religion. Interviewee 4 felt that this society is generally swayed by emotion, “we are still driven by our emotions and beliefs.” This

is a factor that the media often played on in order to pit certain groups against each other. This ultimately worked in the favour of the armed forces, who in their overthrow of the Morsi regime appeared to be the saviours of the country from Islamic terrorists and protectors of a religiously unified Egypt.

The issue of emotionality and how this affects critical thinking was also something that came up in some of the interview responses. It was a problem that some respondents felt prevented some Egyptians from being objective in their political analysis. They viewed it as one of the ways NFC could be inhibited; that in the decision making process, emotions could and often actually override rationality. Interviewee 5 reiterated this by saying “human beings are emotional and can act on impulse rather than depending purely on intellect.” They also believe that this helps in creating a fertile environment for rumour spreading. When this is combined with elevated levels of NFC and in the absence of widespread credible sources, people fill their need to know with rumours in order to satisfy their NFC.

The respondents however were divided when it came to linking high levels of NFC with the propensity to believe or spread a rumour. Some felt that even people with high NFC could fall into this trap due to the lack of alternatives, and that they like the rest of the population, are likely to believe a rumour if it confirms their preexisting beliefs. Interviewee 2 agreed with this point, “I’m guessing people with high NFC are more likely to filter. But having high NFC won’t necessarily lead you in the proper direction, you just think more about things. That doesn’t mean you’ll think about them in the right way.” Interviewee 1 argued that people with high NFC might even be more likely to be the source of a rumour as a result of their own need

to analyse the situation and come up with a particular opinion which they would later discuss with others: "I think high NFC comes with arrogance and a need to seem knowledgeable, especially in front of peers." Another respondent pointed out the possibility of high NFC individuals being more able to differentiate between rumours and factual information as a result of deeper cognitive processes.

If we apply the most basic definition of NFC to the Egyptian people which is "the tendency for an individual to engage in and enjoy thinking." (Cacioppo & Petty, 1982); we can begin to evaluate how the levels of NFC increased on a mass level in this society. It might be useful to point out at this point that although NFC is an individual trait, it has been studied as a general trait within an individual in the sense that it assumes a person could have a tendency to engage in and enjoy thinking without specifying a particular topic. This is a potentially harmful limitation in the existing literature on NFC. Depending on an individual's interests, levels of NFC could vary according to the topic. So while one person may have high NFC when it comes to hard news and current affairs, they may not necessarily apply that level of cognitive analysis to something such as sports or entertainment news. This could also differ from one person to the next depending on their profession, personal interests, and their access to the information needed to fruitfully engage in and enjoy thinking.

When NFC was first introduced as a concept, its definition focused more on a psychological need as opposed to it being a habit or an activity that brings the individual enjoyment: "a need to structure relevant situations in meaningful, integrated ways. It is a need to understand and make reasonable the experiential

world” (Cohen, Stotland, and Wolfe, 1955, p. 291). This is particularly relevant in post-revolutionary Egypt. With such a massive upheaval as brought about by an event such as the overthrow of a three-decade-old autocratic regime, it brought about a new need. Making sense of the situation, understanding all its intricacies, and engaging in deep cognitive analysis became a necessity, and almost a matter of survival. The future of a nation depended on it. If we combine this necessity with the possibility that NFC could increase in a particular direction, we begin to understand why this was necessarily the case in Egypt.

The existing research has shown that a number of factors do affect message perception depending on levels of NFC. While something like education is an internal variable, studies also found that external variables such as framing, group opinions, and source credibility could also play a role in influencing people with high NFC.

These factors also play a role in the way rumours are formed and end up spreading in society. Rumours cannot be fully understood without first understanding the context in which they arose; they cannot be separated from the social circumstances that led to their creation. Rumours are a part of the communication system of any social network and are present in every community in the world. That is why it is very important to normalise the research of rumours in communication studies, because they are indicative of how a society works.

Rumours usually arise when a community feels threatened, times of uncertainty are very fertile ground for them. Interviewee 3 believes that “people need rumours when bad things happen, when there are no clear explanations,

rumours could be used to provide a “why” for the problem and could also act as a way of venting.” This means that post-revolutionary Egypt was automatically more susceptible to rumours. Especially in an environment that included a lack of trust towards a lot of traditional media and the rise in the use of social media where stories often go unverified and are often transmitted as facts. The sharing of rumours often brings people together in times of crisis, the discussion of possible explanations creates a sense of belonging and safety. That is why rumours can be revealing of shared anxieties and concerns within the communal cognitive market. That is why rumours can no longer be considered as anomalies or singularities.

Not only are rumours part of the collective thought process they also have to resonate with the individuals sharing them, they often tend to resonate with them on a personal level. Believability of a rumour is dependent more on an individual’s psychological motivations rather than the strength of the rumour’s argument. This strong connection between cognitive processes and the personal interests of those involved creates a bridge between the study of rumours and individual levels of NFC. It would also provide us with a better understanding of the relationship between individual thought processes vis-à-vis the cognitive environment of a society as a whole since NFC is concerned with an individual’s cognitive needs and rumours are a part of normal social interaction. This connection is also clear in the common motivation of a need to understand, which exists in both NFC and rumour theory.

In a country where the majority of traditional media outlets are either owned by or are aligned to the state, rumours can take on another dimension. Media outlets

themselves have sometimes started rumours and attributed them to society with journalists using the word rumour to distance themselves from the responsibility of sharing false information. Interviewee 5 strongly agrees with this, “news media are already spreading their own lies, using “anonymous” sources and so-called experts to shape public opinion.” This makes the official attitude towards rumours very paradoxical. The Egyptian state has had no problem spreading rumours as facts to the general public when it served its own interests. On the other hand, both political and religious leaders have expressed very aggressively negative attitudes towards rumours. The language used to describe rumours in public statements always demonises them even though they are a normal social occurrence. Terms such as “virus”, “epidemic”, or “disease” are frequently used to refer to rumours, both government officials and Islamic clerics describe it as an evil that must be eradicated from society. Rumours are even sometimes attributed to invisible foreign agents who are trying to undermine the security of the state. All these attempts to vilify rumours did so by trying to turn them to either a moral issue that threatens the fabric of society or the activities of enemies of the state.

Not only is this view very narrow in its understanding of how rumours work or why they originate in the first place, it also undermines the credibility of officials who have not only spread their own rumours in the past, but also occasionally label facts as rumours, in order to protect their own interests. This kind of behaviour manifested itself in extreme ways when rumours about Mubarak’s health started circulating on a massive scale a few years before the revolution. Journalists who questioned the health of the president or discussed the possibility of his death faced

either intimidation or imprisonment. The clearest example of this was when prominent journalist Ibrahim Eissa was put on trial for endangering public safety for writing a column that claimed President Mubarak was very sick and potentially near death.

This is what makes the study of rumours in a country like Egypt rather complex. Under Mubarak, the mere concept of rumours was life-threatening in some extreme cases although they definitely were not something new to Egyptian society. When respondents were asked if they believed Egypt has a culture of rumour spreading, they all agreed that it does exist but gave different explanations for it. A few felt that the current environment is more fertile ground for the spreading of rumours and that rumours have recently taken a more political nature. According to Interviewee 2, “there always has been one [a culture of rumour spreading] but it’s been taking on a political nature recently.” Again the issue of education was raised, where very little attention is given to critical thinking. This is problematic now since more and more people are desperately seeking the truth despite their lack of trust in institutions that were once held sacred such as the military or a variety of religious institutions that can now be easily be labeled as being aligned with the Muslim Brotherhood.

None of the respondents believed that rumour spreading was an intentional culture but one that came out of frustration, lack of education and trust, and a need to understand what is happening in the country without having credible resources to fulfill that need. Interviewee 4 confirms this view by saying “I don’t think it’s an intentional culture. We are a society that gossips in general with all the

unemployment and frustration in our daily lives, poverty, and lack of education. All this make the culture more susceptible to gossip.”

Another contributing factor mentioned by one of the respondents is the people’s sense that the government always knows more than the people and is withholding information from them. Interviewee 1 explains, “In Egypt, you can never know. The state always knows more than the people and withholds that information and consequently leaves room for speculation.” That is why certain rumours in Egypt have had an element of truth to them, because when you have so much space to come up with your own scenarios, some of them are bound to be linked to an element of truth. A different respondent felt that rumours here often lead to panic and fear and that sometimes leads to the mistreatment of others. Interviewee 3 felt that rumours can be particularly dangerous in this case, “especially if they are rumours that assign blame to a certain group of people and imply that taking physical action towards them might help. Inciting attack is very dangerous. There are less guaranteed protections for such groups and less rule of law in politically volatile countries.”

People sometimes come up with stories as a scapegoat from their harsh realities, as a way to explain the mess they live in, rather than finding explanations that could be constructive. This is an idea that was confirmed by one of the studies on rumour theory that found that rumour is sometimes used as a coping mechanism (Haas & Levasseur, 2013). It’s easier for people to blame problems on the powers that be rather than take responsibility for their role in the creation of a problem. Alternatively, rumours are also sometimes created as an alternative to an

unpleasant reality that could potentially create cognitive dissonance or by collectively forgetting an unpleasant memory.

Respondents all agreed that rumours in Egypt have become even more dangerous than before since we have been living in a politically volatile country. As rumours have taken on an almost malicious element, they have frequently led to divisions and sectarian violence. Interviewee 4 feels that rumours “lead to more divisions and divisions lead to conflict. It could even lead to sectarian conflict as what happened before in Egypt.” The emotionality of the Egyptian people may explain why some have a tendency to favour the more dramatic rumour scenarios. It was a factor that the respondents mentioned on more than one occasion. And although rumours can sometimes be beneficial by provoking it to react to an emergency situation or at least become aware of the dangers. In a lot of instances here, that advantage had backfired because the nature of the rumours would provoke a violent reaction rather than a positive one.

The interviewees seemed to be in general agreement that NFC has increased but not in a way that has been particularly productive. People may be thinking more, but still not thinking in the right way. Also, NFC has not increased enough to counteract the damage that could be done through the spread of rumours. People do have an increased desire to know and understand but since that need is not being fulfilled properly, there is more space for rumour spreading. Interviewee 4 agrees, “when you have a need to analyse things and to know more, you usually fall for rumours and falling in the trap of not checking.” Research found that the lack of context leads to an increase in the imagination used to come up with explanations of

situations that people had a need to understand. That is why one of the interviewees rebelled against the basic definitions of NFC and stated that there must be a differentiation between need and ability. They go on to explain that that is why even smart people can be prone to rumours, because they lack the proper tools to find out the truth. Interviewee 1 elaborates on this point by saying, “this is because of the troubled relationship between people, credible information, and their desperate need for change. That’s why even smart people are a bit dumb about rumours in Egypt.” However, both the existing research and the interviews indicate a connection between rumours and NFC, and their combined effects on sense of identity, whether individual identity, collective social identity, or an individual’s sense of identity within the context of the society they belong to.

Conclusion

The scarcity of media research in Egypt makes it fertile ground for new and groundbreaking research but also presents a series of difficult challenges. This is also true of many countries that lived for decades under authoritarian rule but that should not prevent academics from seeking out theoretical explanations for the changing media landscape around us. The Egyptian Revolution ignited a wave of research in a country that seemed almost stuck in time. Political theorists made the mistake of viewing Egypt as a country immune to change and were ultimately proven wrong. This Revolution was more than a simple overthrow of a regime, it must be expanded so it can be viewed as a social and political phenomenon that is still ongoing. Although the situation seems to have stabilised, the outcome still cannot be quantified or described in absolute terms.

That is why, despite its limitations, qualitative research is especially important in understanding the more subtle changes that have been happening on a social and psychological level in Egypt. These are two elements that have unfortunately received very little attention in both media coverage and academic research. Although they may be critical to understanding the extent and kind of change needed to bridge the previously existing gap between the state, media, and its people. In an attempt to better understand this relationship, as well as the psychological shifts that happened in Egyptian society and the subsequent effects on social interactions, this paper has ambitiously endeavoured to connect and apply two media related theories to post-revolutionary Egypt.

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This was the first time any researcher has attempted to apply the concept of NFC to Egypt. The reason this was important to consider was to find an explanation for the sudden increase in interest towards news and political updates that swept the Egyptian population after the revolution. No one had previously questioned the psychological motivations behind such a radical change. For us to understand how and why this change happened, we needed to understand what made the majority of Egyptians reach such a level of apathy or hopelessness in the first place and what ultimately motivated them to speak up. This was achieved through an analysis of the relationships the Egyptian people had towards their government, its powerful military, and traditional media outlets that often protected the interests of those two groups.

This level of disconnect and alienation that was created by the elitist power dynamic in Egypt left the people feeling underrepresented. Although the levels of frustration over these injustices and the poor living conditions continued to grow, few people knew how to vocalise their concerns or bring about any sort of mobilisation to affect change. This is where Egypt's connected youth came in and after years of online opposition and organising labour protests, disgruntled citizens finally found an outlet. It would be both unfair and simplistic to assume that the younger generation and their use of social media is what led to this revolution, but they certainly played a part and even helped change the way people talked about politics in the long run.

The need to know and understand the political environment has clearly increased since the 2011 Revolution. It was a need that could be felt across the

entire country, one that by definition overlaps with the theoretical definitions of NFC. Once this connection was made, the challenges became very clear. There is no way to definitively prove that the Egyptian people were in a state of apathy before the revolution, and since no research existed on the subject, there was also no way to definitively measure whether there was an increase in levels of NFC. The other challenge was arguing that a traditionally individual based measure such as NFC could be applied to a society as a whole. This idea became more plausible due to research that found that levels of NFC could be influenced by external factors and could be changed over time. So if a large group of people goes through extreme circumstances at the same time, there is a possibility that their levels of NFC can change.

This brought this study to a second major challenge. Through conducting this research, there came a realisation that this need to know and cognitively process new information in the Egyptian people was only limited to local news. They had not suddenly become more interested in international affairs, sports, or the sciences, only local political or economic updates. In reviewing the literature on NFC, there were no studies that addressed this discrepancy. It would be impossible to claim that even people with high NFC have equal amount of interest and get the same level of enjoyment from thinking about any topic. This would be a very interesting angle to explore in future NFC research. Despite this, the in-depth interviews showed that some media professionals agree that there has been a general increase in NFC in Egypt especially concerning political matters. This was the first premise this study had hoped to prove in as far as qualitative analysis would allow, with full

acknowledgment that this research is no way generalisable to the Egyptian population.

Although there was agreement over the idea of increased levels of NFC, the interviewees provided interesting barriers they felt would get in the way of this being a positive phenomenon. This research had made no attempt to label it as a positive or negative change, some interviewees felt it important to point out that although that need and enjoyment may have increased, it must be differentiated from ability. That even though a person may enjoy thinking, they may not be doing it in a productive or deeply analytical way and that most Egyptian people lack the proper tools and resources to satisfy this need in the first place. This is where the connection to rumours and how they spread came in. Rumour theory studies have repeatedly stated that rumours are more likely to spread in situations when people have a need to know or understand a situation, especially in times of instability. Considering Egypt's political conditions over the last four years plus this increased interest in politics, means that Egyptians have become more susceptible than ever to rumour spreading. This is particularly true in the absence of what can be considered reliable sources of information, with rumour studies showing that the lack of context makes people more likely to fill in the gaps with their own imagination. Research also showed that people get more creative when they are in groups.

It is clear now that there are a lot of overlaps in the social and psychological factors that contribute to levels of NFC and rumour spreading. These two concepts had not been previously connected, and this research attempted to find theoretical

commonalities that could be used as the framework for future research to understand how the two are related. For example, the extent of the relationship between a person's individual's level of NFC and the likelihood of them creating or spreading a rumour. This study attempted to create that bridge and although there was no way to prove a direct cause and effect relationship between increase in NFC and rumours, since rumours themselves are also impossible to accurately quantify, the interviewees agreed that Egypt had become an even more ripe environment for the spread of rumours and that this was partly as a result of the need to fill in the information gap.

Recommendations for future research include establishing a baseline measure of NFC in Egypt. This would provide for an excellent opportunity for comparative analysis in the future to document the contractions and expansions in the Egyptian people's need to know and understand. The particular circumstances of Egypt also provide an opportunity to delve further in the possibility that levels of NFC can differ according to topic and cannot be generalised even within a single human being. Taking all these factors into consideration, NFC would also benefit from a discourse on the effect emotions have on the cognitive processes involved in consuming and recalling information. Research shows that emotions do play a part in rumour strength and its potential for spreading, and this would provide another common factor that could connect rumour spreading with levels of NFC.

With audiences becoming increasingly active in their consumption of mass media messages, it is becoming more important than ever to delve deeper into the psychological motivations behind media consumption and the social behaviour that

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occurs as a result of it. By expanding existing theories, creating bridges between them, and finding connections with other social science disciplines, we will achieve a better understanding of the roles and effects of mass media.

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Appendix

1. Do you feel that Egyptian society has need for cognition towards local news and political updates?

Interviewee 1: high is relative, circumstances of Egypt lend themselves to high NFC because it's a country that has historically been starved of credible sources of information. Egyptians have lived under dictatorships that controlled information. Until Al-Jazeera came around there was no way for the regular media to serve its purpose the way it is done in the west. There was a lot of frustration and misery that led to an explosion. Egypt is a proud nation with a proud history. What you have now is a state of crisis, people are being denied information. Information is necessary to affect change, and there was a market failure in that regard – people needed something that wasn't available. This all changed dramatically in the last couple of years with social media and lots of free TV helping to fill that void. This affects the rumour issue. In a proper functioning society the mass media has filters (try to get the story right, fact checking, logic, differentiation between facts and analysis etc.) that help in the formation of a basis of what people know. Social media doesn't have that, it's only based on popularity. This created a very dangerous democratisation of facts, facts should be a dictatorship. When you have starvation of information, overnight freedom can be traumatising. Just because someone strongly believes something, sometimes it is taken as fact. There is a specific role of spoken and hence written word in Arab society. People stay stuff to be polite and tell you what you want to hear. There is no precision in the spoken word. The nature of government in

post-colonial times was extremely secretive, usually with the aim of covering up corruption. Which leads to people being more likely to believe conspiracies because they are sometimes true, and this enables the virus to spread. There's an astounding willingness to accept widely believed theories however outlandish, with the logic being: if a lot people believe it, then it must be true. Some people have a love for the counterintuitive, contrast, and the unexpected. Just as individuals can have such a preference, so will some societies. Preferring the more complicated even when it's likely to be less true, some people just don't like the simple answers. An example of that would be how there's a lot of people saying they think Hamas and Israel are allied. There's an element of logic in this since both hate the two-state solution for example, but its still a leap to go to that conclusion – that the Israeli right wing are working with Hamas on orchestrating bombings in Israel. There should be a study done on the belief that 9/11 was carried out by Jews. The logic for that being it allowed the wrath of the West to be unleashed on the Arab world. This is a society that loves conspiracies. When you have this kind of situation with no filters, there's usually a coming together of conspiracy theories with rumours, and the minor facts that might support it will be latched on to.

Interviewee 2: I don't think it ever had it, it may have improved a bit within a certain group of people. Rise of awareness does not necessarily mean an increase in need for cognition. Before the revolution however, it almost non-existent. It was just a tiny intellectual group with high NFC, but they were not as active as they are now. It's a bit more present now because there's more going

on. There's an increase in NFC because there are more rumours and conspiracy theories.

Interviewee 3: Yeah, moderately.

Interviewee 4: Yes for sure.

Interviewee 5: I feel like it has increased and developed over the last few years, a lot compared to pre-revolution. As the government credibility decreased in minds of many Egyptians. Distress has increased and they're looking for other more reliable sources.

2. Did the revolution affect these levels in any way?

Interviewee 2: It did affect it, positively because it gave birth to NFC. But that doesn't mean it results in realistic conclusion by people, it actually often leads to rumours.

Interviewee 3: It has changed the way that people seek out information, more proactive, more likely to talk about it.

Interviewee 4: Yes definitely, the revolution here and the Arab spring as well caused more people to be more interested in news.

Interviewee 5: With the larger dissemination of information that has taken place over the last few years due to the rise of social media and online outlets that are not state controlled. The censorship of information is what led people to believe false information and now they have an alternative to that. So the current generation is reverting to non-traditional outlets. These outlets have not let

them down as opposed to what they had gotten used to from the state and the older generations.

3. How was the perceived credibility of news sources affected by this?

Interviewee 1: People don't trust the media because it's new now and it's not in the DNA of audiences here to trust the media because it was so bad for decades.

Interviewee 2: Rumours are blown out of proportion because people take media at face value. Cognitive processes are limited and people will often accept rumours to fill that. There's a fear factor in society, xenophobia, and anti-west sentiments. For a very long time, people were relying on pro-regime media for their information, which was a demagogue media that plays on fear.

Interviewee 3: I don't think the media landscape has affected their belief of the news. Given the last couple of years, there's higher skepticism towards foreign media.

Interviewee 4: Since a lot of media outlets popped up after the revolution, people started questioning the motives of these outlets such as Rasd and Al-Jazeera. This creates the need to question to what they're being exposed to for the first time. Political chaos took the country by storm and affected people's day to day lives so this is why you would have a need to understand the situation because it directly affects you and your family, sometimes a situation can be dangerous as well. This also came with the emergence of a lot of new information sources that involved heavy use of the Internet and social media. With everyone circulating and engaging in discussions, people needed to feel

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that what they're receiving is credible. This creates an automatic need to analyse what you're receiving. It doesn't matter how you analyse it, because it differs from one person to the next and differs according to political affiliations. You feel the need to analyse more when you're exposed to this much information, to filter more and make sense of the information. This is why I think there is more NFC. We had a majority that got most of their information and news from television hosts (according to statistics) but then with the emergence of rumours and officials coming out and denying rumours, this created a sort of a need to verify whether the information you're being exposed to is factual. People that were not interested in politics or news or reading, now I actually have people asking me about my sources and links whenever I shared information. There definitely is a stronger sense of NFC.

Interviewee 5: I think it depends on the age group. Larger number of participants in revolution or the bulk of them, were teens or at most people in their late 20s and early 30s, and they lost all sense of respect or trust in traditional media outlets. It's not only about the lies, its disrespectful, demonising, as bad as it can get. Not just an issue of biased info, it's much more than that. I feel like a lot of Egyptians were witness to the media hypocrisy and how easily they changed their stance, and claimed that they did things they haven't done. The past few years have provided the opportunity to see that the state have to resort to these tactics to maintain the status quo.

4. Are alternative news sources helping to satisfy this need for cognition in the perceived absence of credible sources of news?

Interviewee 2: I don't think alternative sources are helping because they don't have credibility within the majority. They're not considered a viable source in Egypt. A lot of people will simply use social media to see what the main media sources said.

Interviewee 3: Twitter does fill a gap. It's where a lot of people get their news in Egypt, especially since the revolution. But social media itself makes society more vulnerable to the spread of rumours because there is no need to substantiate.

Interviewee 4: Yes I think so, people are seeking out information on the internet, from television, from books or articles, and different journalists. They're rejecting journalists that they used to trust before after the emergence of so many alternative news sources. Even people who support the state no longer believe state media.

Interviewee 5: Yes they are. Examples could include certain Twitter or Facebook accounts, certain figures within the revolutionary circles. For the most part, there's a reliance on information from other individuals online. But some independent outlets also deserve some credit such as Mada Masr.

5. Do you feel that an individual's need for cognition influences how much they discuss important issues with peers?

Interviewee 1: Yes, especially in this situation. Peers can be a very important way of spreading information, not just social media. It's important for people to

know what people they respect think. In the presence of credible information, conversation is more analytical and naturally people want to sound knowledgeable. Another way it spreads is repeating that information from peers.

Interviewee 2: Yeah

Interviewee 3: It might work in the reverse in Egypt. I would assume people with high NFC would be more conservative in their spread of information, because they need to be sure of its value and credibility. But with low NFC and wanting to be more socially included (a trend since the revolution), you're more likely to do this.

Interviewee 4: Yes, you can see it in coffee shops. People discuss articles they've read. I used to be the weird one following all the news, but now its normal everyone is tapped in to what's happening. Complex things too like political decisions and shuffling of governments not just a bomb going off somewhere. The quality of conversation has changed.

Interviewee 5: It does because they need something to fill this void. So whenever you feel you're not receiving the truth from traditional sources, they try finding out the information themselves. You're more likely now to be able to reach a real eyewitness rather than relying on a media outlet that goes through gatekeeping and censorship.

6. Do you feel that there is a culture of rumour spreading in Egypt and if so, why?

Interviewee 1: Yeah.

Interviewee 2: There always has been one, but it's been taking on a political nature recently. Before they were more like urban legends because there was no transparency and they were not grounded in reality. Most rumours were sports or celebrities related. Nowadays people actually see the government scheming. Rumour culture is getting stronger, can reach decision makers, rumours have become more dangerous and misleading.

Interviewee 3: Yes, because of the style of education. I get the impression that in the Middle East, it's more about repetition, learning facts rather than learning how to think. Elsewhere there's more of an emphasis on critical thinking, especially in higher education. Critical thinking is something that isn't very big here. There is more trust towards institutions other than the government, things that are constant such as religion. The government can change but certain values can't. Education is more of an anonymous, unified institution. Another example is doctors. They're not used to being questioned. This helps in the spreading of false information. Other figures of authority are blindly trusted, if not politicians.

Interviewee 4: I don't think it's an intentional culture. We are a society that gossips in general with all the unemployment and frustration in our daily lives, poverty, and lack of education. All this makes the culture more susceptible to gossip. There is a lot going on in the country and a lot of divisions that have suddenly appeared after the revolution, whether political or religious or social differences that made people start getting involved with this kind of behaviour. If they engage in rumours, it's the rumours that agree with their existing beliefs.

Interviewee 5: It's a really ripe environment, because the truth is so desperately sought by people who try filling in these gaps by coming up with their own sensationalist rumours. Part of it can be truth, or exaggerated, or just to manipulate others. I don't think rumours are more prevalent in Egypt than they are in other countries. But I do think here they're more about politics and state affairs rather than celebrity news.

7. Do you think rumours serve a purpose in society or arise due to a particular need that is collectively felt by a society?

Interviewee 1: The latter is more true. It can serve a purpose in times of crisis. Willingness to accept a rumour should be a function of their historical and empirical likeliness to be true. This doesn't apply to Egypt. In Egypt, you can never know. The state always knows more than the people and withholds that information and consequently leaves room for speculation. Many rumours in Egypt have an element of truth to them, where there's smoke there's fire. But people are too inclined to take a leap of faith. Interest doesn't always equate to action. Conspiracy theories are mostly built on the idea of a lot of people knowing about something and actively executing a plan then shutting up about it. Ultimately the truth always comes out. People by nature are not discreet enough or smart enough to execute these conspiracy theories.

Interviewee 2: I don't feel rumours serve a positive purpose in Egyptian society. Here they just lead to alienation and fear and panic and mistreating others. When there's a rumour about a bomb for example, people don't run away, they

get closer to see what's going on and people have died as a result. The rumour that blamed the electricity cuts on the Muslim Brotherhood allowed the government to continue being complacent about the problem. Egyptians are always trying to find an explanation for the mess they live in and they believe these stories as a scapegoat, but not as a tool for improving or being constructive.

Interviewee 3: Yeah because people need rumours when bad things happen, when there are no clear explanations, rumours could be used to provide a "why" for the problem and could also act as a way of venting. And if they're not being given reliable information or any at all, then they need to create their own. Filling the vacuum with something, it's a human need for narratives and stories.

Interviewee 4: I always believed it served a purpose for people who want to spread an agenda, but never thought that a rumour could arise in society to fulfill a need such as avoiding a reality that they have trouble comprehending or is too upsetting to accept. Now that I think about it, I think that does happen in Egypt.

Interviewee 5: The latter. I don't think they serve a purpose, not an immediate purpose. They could serve a purpose in that once they are exposed we can attach credibility or lack thereof to the source of it.

8. Do you feel there is a relationship between a person's need for cognition and the likelihood of them believing and/or spreading a rumour?

Interviewee 1: I think high NFC comes with arrogance and a need to seem knowledgeable, especially in front of peers

Interviewee 2: I'm guessing people with high NFC are more likely to filter. But having high NFC won't necessarily lead you in the proper direction, you just think more about things. That doesn't mean you'll think about them in the right way.

Interviewee 3: People with higher NFC will shut their mouth and listen more. They're more likely to read and search and discuss, but not immediately draw conclusions. They might want to hear the rumours more than want to spread them, just to get an idea of how other people are thinking. I think they'll get as much data as possible then analyse it themselves to reach the most likely scenario.

Interviewee 4: Yeah because you need something that confirms what you believe in, so sometimes you would spread something even without verifying it because it makes sense to you personally. A person's belief system could override their analytical mind. Our education system does not teach critical thinking, so even when there is higher NFC, we are still driven by our emotions and beliefs and we try to overcome that by seeking out different sources but we still adopt the information that confirms our thoughts more.

Interviewee 5: There could be, depending on the situation. It depends on the level of desperation and the amount of information available. Human beings are emotional and can act on impulse rather than depending purely on intellect. Even though they might not spread the same rumour if they were in a normal situation or a more rational state.

9. How important do you think social or informal exchanges of information are in Egyptian society?

Interviewee 2: Incredibly important, most people rely on one sentence they hear and build up the rest on their own. Most people don't look further because our local media is shallow and state biased but very opinionated. So it doesn't help you form your own conclusions. That's why people end up making their own.

Interviewee 3: I do feel rumours are somewhat necessary, it's a way of feeling connected through a shared reality. If something blows, up you want to know that other people are scared and looking for answers and talking about it. The only problem is when they become toxic and go to the worst emotion and that becomes the dominant narrative. How much they rely on informal exchanges depends somewhat on social class and level of education. It's natural that people who are less educated might rely more on rumours because they lack access, they can't check news updates on their smart phones for example. It's a mix of traditional media and relying on other people. Even if you are literate, not everyone can understand what they're reading and they often don't care about the details, so they just ask each other. And sometimes asking isn't wrong, depending on who you ask.

Interviewee 4: I can't say whether or not it's important but its pretty prevalent and dominant. You depend on information from friends and family even though its and sometimes unreliable source of news, even though this theoretically contradicts NFC. We have NFC but sometimes we have the wrong approach

towards it. We sometimes satisfy our NFC from the wrong sources. This is improving but the emotional drive is still there. We are an emotional society.

Interviewee 5: They're the only thing that can be relied on. Nothing is 100% right all the time. But if I'm going to attempt to seek out the truth, I would never refer to an official source. Nor would they affect my opinion or conclusion. It goes back to the generational gap. I can't generalise and say that of my entire generation. But I think my generation is more likely to do this than turn to state funded anything.

10. Do you think rumours are dangerous in politically volatile countries such as Egypt?

Interviewee 1: Again it depends on their likelihood to be true. Because of the virus aspect and volatile situation it creates the risk of flashes of violence.

Interviewee 3: They can be. Especially if they are rumours that assign blame to a certain group of people and imply that taking physical action towards them might help. Inciting attack is very dangerous. There are less guaranteed protections for such groups and less rule of law in politically volatile countries. It becomes harder to protect victims of hate speech and malicious rumours.

Interviewee 4: Yes because it leads to more divisions and divisions lead to conflict. It could even lead to sectarian conflict as what happened before in Egypt. Sometimes a rumour can give extra meaning to something when it isn't there. In this kind of situation it could lead to death. For example, any protest organised now against President Sisi, we automatically assume it was the

Muslim Brotherhood. Another example is the Shaimaa El Sabbagh incident, that woman who was killed during a peaceful protest on the anniversary of the revolution. First they said that the Muslim Brotherhood had organised the protest. When they realised that this lie wouldn't work because Shaimaa was Christian, the rumour changed to members of the Muslim Brotherhood had infiltrated the protest and shot her despite the fact that the images and videos clearly showed that she was shot by the police.

Interviewee 5: They could be, and the Maspero incident is a very good example of that. Because in a country such as Egypt with a general lack of awareness and a very high illiteracy rates and lacking basic critical thinking skills, how people react to a rumour is not something you can predict and can sometimes be dangerous. It also limits the ability to differentiate a rumour from a fact to begin with. The state sometimes used this to manipulate the people. With this ignorance and due to deterioration of values such as peacefulness and freedom of thought and expression comes violence; and rather than reacting to a rumour in a civilised way sometimes it can create violence. I can't blame the people for this. So NFC has increased but not to the extent where rumours can no longer be dangerous.

11. What have been some of the most ridiculous rumours you've heard in Egypt?

Interviewee 1: Jews carried out the 9/11 attacks. Israel is more important and powerful than America. Israel and Hamas are best friends. Deep state undid

Morsi, but that one is actually plausible. America created the Muslim Brotherhood with strong causal links to and tremendous affinity for the Muslim Brotherhood, because they think Obama is a Muslim and take democratic elections more seriously.

Interviewee 2: Morsi is coming back. Abla Fahita is a freemason. Pretty much everything Sameh Abu El Arayes says.

Interviewee 3: Attitudes towards America's role in Egypt. Because there's such cognitive dissonance that occurs when you have one group of people saying that a particular event was backed by the US and other people sending accusations towards a different group, without seeing the contradictions. There's a lot of deflection going on. The Egyptian ruling elite and the different centers of power are aware of how rumour-prone Egypt is, in fact they fuel this. It allows them to look outward for blame rather than taking internal responsibility. Scapegoating.

Interviewee 4: How in the Raba'a incidents, they said that people planted burnt corpses. They even got pictures of it to allegedly prove it. People were claiming that the protestors had stowed them away and got them out to accuse the Ministry of Interior of killing them. Another one was that Sisi was masonic. Others claimed that the Muslim Brotherhood were also masonic. We're not realising that we have much bigger problems to deal with than the weird conspiracy theories and rumours we're spreading. Sisi got accused of being a member of the Muslim Brotherhood during the Morsi era. Abla Fahita being a spy. The shark attack in Sharm, rumour being that this shark was sent from Israel to ruin Egyptian tourism.

Interviewee 5: Before Egypt entered Libya in response to ISIS actions, supposedly Egypt had already been in Libya – propping up the military dictatorship there covertly. Rumours of army being deployed at Saudi and Yemeni border to prevent spread of the Houthis. Mostly rumours about presence of Egyptian army in foreign lands.

12. Do you think rumours are damaging to news media? Or do they enforce their role in spreading the truth?

Interviewee 1: Rumours are useful to news media in the news gathering aspect because it gives you tips on where to look for information because they might be true. Then it is run through actual filters. What isn't useful is when news media that are not very credible use rumours as their source of information.

Interviewee 2: It depends on the media specifics, I think all forms of media have agendas and they use rumours to their benefit.

Interviewee 3: The power of rumours in news media has been greatly amplified in the last 10 years because of social media and the Internet. Lies travel faster than the truth a lot of the time. Before investigative reporting can be done by traditional media. Instead of just putting news out there you sometimes have to battle wrong information that's already out there. People that tend to spread rumours are more likely to be low NFC. And once the accurate picture is out they can't change their minds. It's created quickly and cements quickly. People with higher NFC are slower to form an opinion and more open to revising it after.

Interviewee 4: Unfortunately media uses rumours that are accepted by society as facts to get more exposure. So it's pretty damaging to their reputation, especially in state backed media, or pro-state media. Media is using rumours and not fact checking for higher viewership or readership. Media is often playing along rather than playing the role of presenting facts. They're going with whatever society accepts. You can see it in the change of tone and tact that happens according to social changes, a lot of journalists have changed their opinions over the last few years since the revolution.

Interviewee 5: The news media are already spreading their own lies, using "anonymous" sources and so-called experts to shape public opinion. I don't think socially created rumours are negatively impacting new media because these sources are already providing so much misinformation and fear mongering and are destructive of human bonds. Maybe the only way it has an affect is when they have people call in (after screening and hanging up when they hear something they don't like). These people come up with their own rhetoric. People hear things on television and it's easily soaked in. That way they're using individuals from the audience to give them a seemingly more credible medium to spread a rumour to a much wider audience. It's more dangerous to be stated that way as truth as opposed to rumours being spread socially in a more contained environment. On a larger scale, we should be able to evaluate that these channels are not credible but that rarely happens so it's not particularly damaging to them. But rarely, and from a more optimistic perspective, one viewer who sees

this and doesn't believe it would no longer believe that channel and that would be damaging to them.

13. Do you think rumours are more prevalent in times of crises and in the absence of reliable information?

Interviewee 2: Of course.

Interviewee 3: Sure.

Interviewee 4: Definitely, because people are generally thinking and rationalising more. They want to comprehend it. So in times of crisis there are usually things that are shocking and things you can't accept emotionally or cognitively so rumours are more rife.

Interviewee 5: They're going to exist anyway but they are more prevalent in these times because they fill a void when there's a need to know.

14. What do you feel is the connection between need for cognition and rumour theory?

Interviewee 1: I rebel against the definition of NFC, we need to differentiate between need and ability. In Egypt even people with high NFC by your definition are extremely open to rumours and spreading them. People here also have trouble with cause and effect relationships, and often jump to conclusions about them. This is because of the troubled relationship between people, credible information, and their desperate need for change. That's why even smart people are a bit dumb about rumours in Egypt.

Interviewee 2: I don't think there is a specific connection, people with high NFC could enhance a rumour if it goes with their belief system. On the other hand, they could think it out and filter out the bullshit.

Interviewee 3: I think there is an inverse relationship between levels of NFC and the propensity to spread rumours.

Interviewee 4: When you have a need to analyse things and to know more, you usually fall for rumours and falling in the trap of not checking. You could also be the source of the rumour, because you analyse in your mind and then discuss it in an informal way and others could take that analysis as factual information.

Interviewee 5: So when there is high NFC there could be rumours due to lack of credible sources, because the circumstances we live in are psychologically demanding.