



# Impact of influencers' Facebook pages in cultivating fear and terror among youths during the COVID-19 pandemic

Reham Gamal Ahmed Salem Omar <sup>1\*</sup>

 0000-0003-1542-8109

Andreu Casero-Ripollés <sup>1</sup>

 0000-0001-6986-4163

<sup>1</sup> Universitat Jaume I de Castelló, Castelló, SPAIN

\* Corresponding author: [romar@uji.es](mailto:romar@uji.es)

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## ABSTRACT

Many research studies defined news pages that connect users with public affairs as social media influencers. This includes opinion leaders, journalists, media personnel, editors, and political experts. In this sense, news consumption on influencers' Facebook pages can have the same cultivation impact as consuming news on any offline platform, particularly during times of threat. Within this, we aim to reexamine the cultivation theory in the context of social media. Thus, we explore the role of influencers on Facebook in cultivating threat perception among youths during the COVID-19 pandemic. Also, to examine the possible correlation between threat perception and favoring of more restrictive policies on Facebook news coverage. For this, we used the survey method (n=1,309) on youths aged 18-35 years in Egypt, Spain, and the USA. In this respect, our data revealed a significant relationship between news consumption on influencers' Facebook pages and threat level. The more people consume news on influencers' Facebook pages, the higher their threat perception is. Our findings also demonstrate that even though the cultivation assumption is valid in the context of Facebook, there are variations from the TV context postulation. Nowadays, people are aware of the effect of their news exposure on shaping their perception yet being aware did not mediate the cultivation effect.

**Keywords:** news consumption, Facebook, cultivation effect, COVID-19, youth

## INTRODUCTION

People's reliance on news media coverage significantly increases during times of uncertainty and crisis to obtain accurate information about the situation—this holds true, particularly at the time being where people around the globe are facing a health crisis that led to a complete lockdown and other preventive measures (De Coninck et al., 2020; de León et al., 2022; Nguyen & Nguyen, 2020). It is worth noting that during times of threat (i.e., war, terrorism, health crisis, economic crisis), various news coverages on different platforms can have the same impact on fear and anxiety levels. Thus, different news frames will not differ from one entity to another (De Coninck et al., 2020). It is usually associated with anxiety and fear levels, where overly sensationalized coverage heightens fear and stress. (De Coninck et al., 2020; de León et al., 2022). Relying on the social amplification assumption, the more people consume news and information on social media or any other platform, the more confused—many if not most of them will be. Nguyen and Nguyen (2020) added that once confusion reaches a certain point, the information quality becomes subjective to personal bias confirmation and verification, leading to anxiety, fear, etc.

During the COVID-19 pandemic, people were not only suffering from the pandemic but also from an “infodemic” that had an impact worse than the pandemic itself. According to World Health Organization (WHO), infodemic is defined as the spread of fake, misleading, and bogus information about the pandemic.

For this, most people relied on social media influencers (SMIs), online portals, social media, and legacy media to obtain reliable information and news coverage. These media outlets, therefore, became the most used platforms for disseminating information and news (De Coninck et al., 2020; Hodson & Petersen, 2019).

It is worth noting that even SMIs can circulate threat messages and exaggerate fear levels among users. For instance, when they report on adverse events or when they pass on false information, or write bogus, vague, incomplete, as well as inaccurate material to comment on events (Deborah et al., 2019). In this regard, our research study explores the news reception and consumption on influencers' Facebook pages and the cultivation impact of such exposure on shaping threat perception. We also tend to examine the correlation between the possible cultivated threat perception and favoring of more restrictive policies on Facebook news coverage during times of threat.

## LITERATURE REVIEW

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### Social Media Influencers and News Consumption

Casero-Ripollés (2022) argued that social media platforms are dominated by some users, namely connective influencers, who have an extended influence on others. These SMIs are defined as opinion leaders who are assertive, extroverted, and socially active with followers (Bobkowski, 2015; Enke & Borchers, 2019). They can be the pages and accounts of news organizations, political actors, politicians, writers, experts, and political journalists (Bobkowski, 2015; Hodson & Petersen, 2019). Similarly, Casero-Ripollés (2021) identified SMIs as opinion leaders, journalists, media personnel, editors, and experts in political talk shows. Johnson and St. John III (2020) argued that online opinion leaders/influencers play an active role as agenda creators and information providers. In sum, SMIs are actors who have a high digital authority that allows them to influence the digital realm (Casero-Ripollés et al., 2022). According to this, we adopt the abovementioned definitions of SMI.

Deborah et al. (2019) and Johnson and St. John III (2020) argued that people perceive news stories shared by influencers (i.e., news organizations) as more credible and trusted than non-news organizations. Thus, youths on Facebook rely heavily on SMIs as their primary source of political news (Boukes, 2019; Chan, 2016). Vraga et al. (2015) added that Facebook users depend on opinion leaders to know and comprehend important news and information. Furthermore, opinion leaders draw users' attention to the news they would have missed, in addition to playing an essential role in disseminating and explaining the ongoing events (i.e., public, and political affairs) (Bergström & Jervelycke Belfrage, 2018).

In sum, influencers are currently connecting citizens with the news (Johnson & St. John III, 2020). They shape how news affects people's opinions, perceptions, and behavior (Cho et al., 2015). Therefore, the influencers' role is vital in passing on the news (Bergström & Jervelycke Belfrage, 2018) since users turn to news organizations and professional editors for getting news about epidemics, catastrophes, crimes, the economy, politics, terrorism, foreign affairs, and the environment (Sveningsson, 2015).

Nonetheless, influencers can also disseminate threat messages and exaggerate fear levels among users, especially when reporting adverse events, passing false information, or writing bogus, vague, incomplete, and inaccurate comments on events (Deborah et al., 2019). Bene (2017) stressed that consuming political news on Facebook leads to a negative perception of public affairs and ongoing occurrences. In this regard, news consumption on news organizations' and journalists' Facebook pages -referred to as influencers can shape mass opinion and perception of reality (Schmidt, 2018; Tang & Lee, 2013).

### COVID-19 News Consumption and Threat Perception

During the COVID-19 pandemic, social media sites (i.e., Facebook) played a fundamental role in the information process, where people turned to social media seeking news and information (Casero-Ripollés, 2020; Newman et al., 2020). In this respect, Newman et al. (2019, 2020) argued that more than half of the people worldwide consider Facebook a leading platform for spreading fake information almost everywhere. Similarly, Ahmad and Murad (2020) explained that Facebook had a significant role in spreading fake and inaccurate information, upsurging panic, fear, and anxiety among users, who mainly relied on this venue for obtaining information and news.

Over and above, other scholars believe that social media has a negative role as it is overwhelmed with exaggerated news on terrorism, pandemics, disasters, and tragic content (Daniel Ong'ong'a & Demuyakor, 2020). For instance, there was a massive amount of fabricated, fake, and misleading news on COVID-19 on social media sites (Bridgman et al., 2020; Cinelli et al., 2020; Daniel Ong'ong'a & Demuyakor, 2020; Gallotti et al., 2020; Kamil & Rathaur, 2020; Nguyen & Nguyen, 2020; Ouedraogo, 2020; Vraga et al., 2020; Kyriakidou et al., 2020; World Health Organization, 2020).

Despite the information flow spike across the world that kept people updated on the current health crisis of COVID-19 regarding the number of infected, mortality, cured, etc., such a massive circulation of misinformation led to negative psychological effects such as panic, stress, fear, and other severe psychological backlashes (Kamil & Rathaur, 2020). Thus, the spread of fake news and misleading information about this new disease of COVID-19 led to severe psychological effects on people as it heightened stress, anxiety, and fear levels among people (Ahmed et al., 2020; Bergen-Cico, 2020; Mansell & Ang, 2015; Nguyen & Nguyen, 2020; Rommer et al., 2020; Sood, 2020).

By examining the psychological impact of news exposure on social media platforms during the pandemic of coronavirus, scholars found that there is a higher level of anxiety, fear, depression, harmful alcohol user, and less mental well-being than usual (Ahmed et al., 2020; Mansell & Ang, 2015; Nguyen & Nguyen, 2020; Rommer et al., 2020; Sood, 2020). Moreover, the impact on younger people (aged 21-40) was more intense in terms of their mental well-being and alcohol use (Ahmed et al., 2020). Other scholars added that exposure to this type of news cultivated higher degrees of fear, worry, and threat among women and elder people compared to men and youths. (García-Castro & Pérez-Sánchez, 2018; Scarborough et al., 2010)

In short, the uncertainty connected with COVID-19 shared news on social media produced significant psychological and psychiatric turbulences (Ahmed et al., 2020; Mansell & Ang, 2015; Nguyen & Nguyen, 2020; Rommer et al., 2020; Sood, 2020). For example, it led to a post-traumatic stress disorder, depression, anxiety, fear, panic disorders, and behavioral disorders (Sood, 2020). Ahmad and Murad (2020) added that the severity of the effect depends on several factors, including the user's level of consumption, sex, age, and education.

Also, heavy news consumers exhibit higher levels of anxiety and fear than light and medium consumers (Sloan et al., 2020). On this matter, Manzoor and Safdar (2020) examined the cultivation impact of consuming social media news during the COVID-19 pandemic and found a strong cultivation effect. They added that these networks, such as Facebook, cultivated fear among upper and middle socioeconomic statuses. Thus, social media has the most devastating role in cultivating high levels of threat and fear due to the nature of these platforms that enable everyone to share their views. Further, the low media literacy and the inability of many people to differentiate between factual, opinion, fake, and accurate information make it very hard for people to avoid the cultivated impact of fear and terror during this health crisis. (Manzoor & Safdar, 2020).

Based on the abovementioned, we drafted our hypotheses to fill in the gap in previous studies by analyzing the following variables in the context of Facebook: news consumption, SMIs, cultivation, and threat perception. Thus, we focused on examining the cultivation effect of news consumption on influencers' Facebook pages during the COVID-19 pandemic, investigating these hypotheses:

1. **H1.** Heavy news consumption on influencers' Facebook pages correlates with threat perception during the COVID-19 pandemic.
2. **H2.** Heavy news consumption on influencers' Facebook pages correlates with favoring of more restrictive policies on Facebook news coverage during the COVID-19 pandemic.
3. **H3.** Mean world syndrome correlates with favoring of more restrictive policies on Facebook news coverage during the COVID-19 pandemic.

Even though there are many research studies on social media news trust, only a limited number examined news trust in the context of Facebook. In this regard, we cover this important facet in our study by hypothesizing the following:

4. **H4.** There is a relationship between Facebook news trust and threat perception during the COVID-19 pandemic.

## METHODOLOGY

### Data

We used the survey method of disseminating an online questionnaire through the market research service of Qualtrics from August 2021 till September 2021. We employed a non-probability quota sample (n=1,309) on young adults (18-35 years) residing in Egypt, Spain, and the USA.

The main reason for selecting these countries is that each has a different political and media system. According to World Press Freedom Index (Reporters Without Borders, 2020), each stated country represents a distinct rank. For instance, Egypt is labeled as a non-free country (166/180), the USA is somehow free (45/180), and Spain (29/180) came among the top countries that have press freedom. Hence, we selected these countries to compare people living in different media systems and examine how their perceptions, values, and ideologies may significantly vary based on their news consumption.

We targeted an equal sample size from each country with the following: the USA (n=436), Spain (n=437), and Egypt (n=436). Also, there is an almost equal sample size across sex. The sample was categorized into four age segments.

### Variables

We designed the questionnaire to measure five variables which are: news consumption on influencers' Facebook pages, threat perception, mean world syndrome, restricting news coverage on Facebook, and news trust. We also used the age (M=2.26; SD=0.926) and sex (M=1.51; SD=0.505) demographics as control variables.

#### *News consumption on influencers' Facebook pages*

We started the questionnaire with a filtering question asking whether people follow any news page on Facebook. Later, we measured the frequency of news consumption on influencers' Facebook pages by asking participants to select the extent of their news consumption on a 5-point Likert scale (1=never, 5=always) of 10 items:

1. journalists (individual),
2. analyst or opinion-maker (intellectual, political, writer, political analyst, etc.),
3. politician (individual); 4. political party (organization),
4. member of government and officials (i.e., president, prime minister, minister, governor, etc.),
5. activist (citizen, social movement, a protest movement, etc.),
6. newspaper (print or digit),
7. TV news channel (national/international),
8. news agency, and
9. radio station.

Afterward, we recoded the answers on three points Likert scale to label participants into light, medium, and heavy news consumers based on the cultivation theory classification ( $\alpha=0.906$ ). Kaiser-Meyer-Olkin's measure of sampling adequacy is 0.935 and Bartlett's test of sphericity is significant ( $X^2[55]=9,003.562$ ,  $p<0.000$ ).

#### *Threat perception*

The threat perception posed by COVID-19 was measured by asking participants to rate their agreement (1=strongly disagree, 5=strongly agree) on a list of three items:

1. I am afraid about my family's general safety,
2. I think the spread of diseases is an imminent threat, and
3. I think COVID-19 threatens my life.

We created a composite score of these items of threat perception to divide participants into low, moderate, and high threat perception ( $\alpha=0.703$ ). Kaiser-Meyer-Olkin's measure of sampling adequacy is 0.7. Bartlett's test of sphericity is significant ( $X^2[3]=574.936$ ,  $p<0.001$ ).

### **Mean world syndrome**

We measured this variable on a 5-point Likert scale (1=strongly disagree, 5=strongly agree) using three items:

1. Although it may appear on the circulated news on Facebook that things are constantly getting more dangerous, it is not so in real life,
2. I feel that chaos and anarchy could erupt anytime whenever I consume news on Facebook, and
3. I think publishing more news related to COVID-19 on Facebook has spread fear and panic among people.

We created a composite score of these items to divide respondents into low, moderate, and high mean world perception ( $\alpha=0.7$ ). Kaiser-Meyer-Olkin's measure of sampling adequacy is 0.7. Bartlett's test of sphericity is significant ( $X^2[3]=364.174$ ,  $p<0.001$ ).

### **COVID-19 news trust on Facebook**

We measured news trust by asking respondents about their level of agreement (1=strongly disagree, 5=strongly agree) on whether they believe that most of the circulated news on Facebook about COVID-19 is fake, fabricated, and misleading.

### **Restricting news coverage on Facebook**

Participants were asked if they think there should be filters and a specific policy for news coverage on Facebook during humanitarian crises such as the spread of COVID-19 (1=strongly disagree, 5=strongly agree).

## **RESULTS AND ANALYSIS**

### **Following Influencers' Facebook Pages**

Our data exhibited (76%) of the sample follows Facebook news pages, with females (55%) outweighing males (45%). For the purpose of this study, we only examined those who follow influencers' Facebook pages ( $n=996$ ) since we are examining the effect of news consumption on these pages. In this regard, Egypt was the highest in terms of following news pages on Facebook (85.6%) followed by Spain (80.8%) and the USA (61.9%). Moreover, females (54.2%) surpassed males (45.7%) who follow Facebook news pages. In more depth, Spanish females obtained the highest score (63.5%) compared to Egyptian (52.8%) and American females (44.1%). In addition, there are more American males (55.9%) than their counterparts in Egypt (47%) and Spain (37%).

The data analysis also showed that those aged 25-29 years and 30-34 years are the highest in terms of following Facebook news pages (32.3%). Moreover, 35 years old participants were the least to follow news pages on Facebook (8.2%). We also detected some differences among Egyptians aged 25-29 years, who are the most to follow (37.5%) in comparison to other age groups. On the other side, those aged 30-34 years in Spain (34.8%) and the USA (42.2%) scored the highest in terms of following news pages.

### **Frequency of News Consumption on Influencers' Facebook Pages**

The results show that the most followed Facebook news sources are TV news channels (65%), newspapers (58.5%), and news agencies (51.4%). We did not notice significant differences across the three examined countries. On the other side, the less followed sources are political parties (30.1%), politicians (34.9%), and analysts or opinion-maker (37.5%). It is worth noting that the results were consistent across the three investigated countries.

Through computing the composite score of news consumption on influencers' Facebook pages ( $M=2.18$ ;  $SD=0.783$ ), we found that the majority of the sample are heavy news consumers (41%). However, most of the Spanish are medium news consumers (42.2%) compared to the American (43.7%) and Egyptian youths (43.4%) who are heavy news consumers.

**Table 1.** Frequency of news consumption on influencers' Facebook pages across sex

Item	Response	Male		Female		Total	
		n	%	n	%	n	%
Composite variable-news consumption on influencers' Facebook pages	Light	105	23.1	127	23.5	233	23.4
	Medium	161	35.4	194	35.9	355	35.6
	Heavy	189	41.5	219	40.6	408	41.0
<b>Total</b>		<b>455</b>	<b>100.0</b>	<b>540</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
<b>Spain</b>							
Composite variable-news consumption on influencers' Facebook pages	Light	23	17.8	53	23.7	76	21.5
	Medium	44	34.1	105	46.9	149	42.2
	Heavy	62	48.1	66	29.5	128	36.3
<b>Total</b>		<b>129</b>	<b>100.0</b>	<b>224</b>	<b>100.0</b>	<b>353</b>	<b>100.0</b>
<b>Egypt</b>							
Composite variable-news consumption on influencers' Facebook pages	Light	46	26.3	47	23.9	94	25.2
	Medium	63	36.0	54	27.4	117	31.4
	Heavy	66	37.7	96	48.7	162	43.4
<b>Total</b>		<b>175</b>	<b>100.0</b>	<b>197</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>
<b>The USA</b>							
Composite variable-news consumption on influencers' Facebook pages	Light	36	23.8	27	22.7	63	23.3
	Medium	54	35.8	35	29.4	89	33.0
	Heavy	61	40.4	57	47.9	118	43.7
<b>Total</b>		<b>151</b>	<b>100.0</b>	<b>119</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>

We also noticed that most males (41.5%) and females (49.6%) are heavy news consumers, with a minimal difference across them. Yet, in Spain, most females (46.9%) are medium news consumers compared to their male counterparts (48.1%), who are heavy. Furthermore, most males and females in Egypt and the USA are heavy news consumers; given that females outweigh males (Table 1).

### Cultivation Effect of Threat Perception

The collected data shows that most of the sample are not afraid about their family's general safety ( $M=1.97$ ;  $SD=0.888$ ). Yet, there is a minimal difference of 3% between those who are worried (41%) and not worried (38%). In more depth, we found 40% of the American respondents ( $n=270$ ) are afraid about their family's general safety. On the other side, the majority in Spain (41%) and Egypt (45%) are not.

The demographics of the participants offer a clear insight into these figures. Most females (45.2%) are worried compared to males (45.9%) who are not. However, the data showed that most Spanish females are not afraid (42%) unlike the majority of females in the USA (53%) and Egypt (49%).

Moreover, we did not identify significant differences between 18-24 (47%) and 30-34 years (44.5%) who are not worried. Per contra, many of 25-29 (46.5%) and 35 years (40.2%) are worried. It is worth noting that the only difference we detected is among Egyptians aged 35 years (73.7%) who feel safe compared to the majority of their counterparts of the same age in Spain (46%) and the USA (50%) who are not.

Although most of the sample think COVID-19 threatens their life (44%) ( $M=2.11$ ;  $SD=0.868$ ). The American respondents (53%) scored relatively higher than their counterparts in Egypt (43%) and Spain (38%).

Similar to prior findings, females scored higher than males in the three countries. Unlike many male participants, most Egyptian males (38.3%) do not think the COVID-19 pandemic threatens their life. Also, youths aged 18-24 years in the USA (56.7%) and Spain (40%) are not threatened by COVID-19, in comparison to their counterpart in Egypt (40%) who are. Moreover, 35 years in Egypt (47%) are not threatened while the majority in the USA (66.7%) and Spain (36%) of the same age are threatened.

By calculating the composite score of threat perception and dividing participants into low, moderate, and high, we found that 43% of the surveyed sample has a moderate threat perception level ( $M=1.89$ ;  $SD=0.747$ ), followed by low (34%) and high threat perception levels (22.8%). Even though most of the participants in the USA, Spain, and Egypt have moderate threat perception, we observed that those in the USA have the highest threat levels (28%), followed by Egyptians (22%) and Spanish (20%) (Table 2).



**Table 2.** Composite variable–threat perception

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
Composite score– threat perception	Low threat perception	126	35.7	140	37.5	75	27.8	341	34.2
	Moderate threat perception	156	44.2	152	40.8	120	44.4	428	43.0
	High threat perception	71	20.1	81	21.7	75	27.8	227	22.8
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table 3.** Composite variable–threat perception across sex

General		Sex				Total	
Item	Response	Male		Female		n	%
		n	%	n	%		
Composite score– threat perception	Low threat perception	177	38.9	164	30.4	341	34.2
	Moderate threat perception	209	45.9	218	40.4	428	43.0
	High threat perception	69	15.2	158	29.3	227	22.8
<b>Total</b>		<b>455</b>	<b>100.0</b>	<b>540</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Spain							
Composite score– threat perception	Low threat perception	47	36.4	79	35.3	126	35.7
	Moderate threat perception	61	47.3	95	42.4	156	44.2
	High threat perception	21	16.3	50	22.3	71	20.1
<b>Total</b>		<b>129</b>	<b>100.0</b>	<b>224</b>	<b>100.0</b>	<b>353</b>	<b>100.0</b>
Egypt							
Composite score– threat perception	Low threat perception	80	45.7	60	30.5	140	37.5
	Moderate threat perception	74	42.3	77	39.1	152	40.8
	High threat perception	21	12.0	60	30.5	81	21.7
<b>Total</b>		<b>175</b>	<b>100.0</b>	<b>197</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>
The USA							
Composite score– threat perception	Low threat perception	50	33.1	25	21.0	75	27.8
	Moderate threat perception	74	49.0	46	38.7	120	44.4
	High threat perception	27	17.9	48	40.3	75	27.8
<b>Total</b>		<b>151</b>	<b>100.0</b>	<b>119</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>

Consistent with our prior findings, females have higher levels in comparison to their counterparts, with a difference of 12%. Likewise, more than 40% of American females hold high threat perception compared to the majority of females in Egypt (39%) and Spain (42%) who have moderate threat levels (Table 3).

As for threat perception among different age segments, we noticed that most 25-29 years (33%) have high threat levels compared to other age groups. Also, 18-24 years have minimal threat level (15%). In more depth, youths aged 25-29 years in Egypt (34%) hold high threat perception, yet they vary between high (37.3%) and moderate levels (37.3%) in the USA. Different age groups in Spain have moderate threat perception levels except for 18-24 years (44%) who have low threat levels. It is worth noting that there was a significant difference across 35 years in the three countries, with the majority of them in the USA (50%) and Spain (48.7%) holding moderate levels and low levels in Egypt (58%) (Table 4).

In relevance to the abovementioned, we found a minimum positive correlation between news consumption on influencers’ Facebook pages and threat perception level  $\rho=0.282$ ,  $p<0.001$ . This result means the more people follow influencers’ Facebook pages, the more they have a threat perception. We detected some variation across the three examined populations. For example, the strength of correlation greatly varied across the three countries; there is a minimum positive correlation in Spain  $\rho=0.135$ ,  $p<0.006$ ; a weak positive correlation in Egypt  $\rho=0.324$ ,  $p<0.001$ ; weak positive correlation in the USA  $\rho=0.403$ ,  $p<0.001$ . In this sense, we reject the null hypothesis of no association and accept **H1**. Taking this into account, heavy news consumption on influencers’ Facebook pages correlates with threat perception during the COVID-19 pandemic.

### Restricting Facebook News Coverage During COVID-19 Crisis

Our data analysis revealed more than 56% of the sample thinks there should be filters and a specific policy for news coverage on Facebook during health and humanitarian crises such as the spread of COVID-19

**Table 4.** Composite variable–threat perception across age

General		Age								Total	
Item	Response	18-24 years		25-29 years		30-34 years		35 years		n	%
		n	%	n	%	n	%	n	%		
Composite score– threat perception	Low threat perception	96	41.7	103	30.1	116	33.9	26	31.7	341	34.2
	Moderate threat perception	100	43.5	129	37.7	163	47.7	36	43.9	428	43.0
	High threat perception	34	14.8	110	32.2	63	18.4	20	24.4	227	22.8
<b>Total</b>		<b>230</b>	<b>100.0</b>	<b>342</b>	<b>100.0</b>	<b>342</b>	<b>100.0</b>	<b>82</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Spain											
Composite score– threat perception	Low threat perception	40	44.0	32	32.0	43	35.0	11	28.2	126	35.7
	Moderate threat perception	35	38.5	44	44.0	58	47.2	19	48.7	156	44.2
	High threat perception	16	17.6	24	24.0	22	17.9	9	23.1	71	20.1
<b>Total</b>		<b>91</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>123</b>	<b>100.0</b>	<b>39</b>	<b>100.0</b>	<b>353</b>	<b>100.0</b>
Egypt											
Composite score– threat perception	Low threat perception	42	38.5	45	32.1	42	40.0	11	57.9	140	37.5
	Moderate threat perception	51	46.8	47	33.6	49	46.7	5	26.3	152	40.8
	High threat perception	16	14.7	48	34.3	14	13.3	3	15.8	81	21.7
<b>Total</b>		<b>109</b>	<b>100.0</b>	<b>140</b>	<b>100.0</b>	<b>105</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>
The USA											
Composite score– threat perception	Low threat perception	14	46.7	26	25.5	31	27.2	4	16.7	75	27.8
	Moderate threat perception	14	46.7	38	37.3	56	49.1	12	50.0	120	44.4
	High threat perception	2	6.7	38	37.3	27	23.7	8	33.3	75	27.8
<b>Total</b>		<b>30</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>

**Table 5.** I think there should be filters on Facebook news coverage

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
I think there should be filters and a specific policy for news coverage on Facebook during humanitarian crises such as spread of COVID- 19.	Disagree	58	16.4	63	16.9	62	23.0	183	18.4
	Neutral	91	25.8	90	24.1	71	26.3	252	25.3
	Agree	204	57.8	220	59.0	137	50.7	561	56.3
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

(M=2.38; SD=0.777); with more females (61%) than males (51%). Almost 60% of the three countries believe there should be filters with Egyptian youths scoring the highest (60%), followed by the Spanish (58%) and the American youths (51%) (Table 5).

Females also scored higher than males in the three examined countries in terms of favoring news filter. Most of the obtained figures show that all age groups are also in favor of imposing restrictions. In more depth, 25-29 years aged participants in Egypt (61.4%) and Spain (63%) scored higher compared to other age groups, whereas 35 years were the majority to favor filters among the American participants (63%).

Running Spearman’s test, we found a minimum positive correlation between news consumption on influencers’ FB pages and favoring filters and a specific policy for news coverage on Facebook rho=0.250, p<0.001. Thus, the more people follow influencers’ Facebook pages, the more they favor of restrictive policies of Facebook news coverage. Analyzing the difference across the three countries, we found a minimum positive correlation in Spain rho=0.099, p<0.032 compared to Egypt rho=0.253, p<0.001 and the USA rho=0.433, p<0.001, which have weak positive correlations. Accordingly, we accept the assumption of association in the three countries and support H2. Suggesting that heavy news consumption on influencers’ Facebook pages correlates with favoring of more restrictive policies and filters of Facebook news coverage during the COVID-19 pandemic.

**Trust Level of Facebook News Posts on COVID-19**

Our results highlighted more than 40% of those who follow Facebook news pages do not believe that the circulated news on Facebook about COVID-19 is fake, fabricated, and misleading (M=1.92; SD=0.852). Yet there are 27% are not sure, and 32% believe it is fake (Table 6). There are more females than males who consider the circulated news to be fake, with a 5% difference point. Nonetheless, most males and females do not consider COVID-19 news on Facebook fabricated.



**Table 6.** Trust level of Facebook news posts on COVID-19

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
I think most of the circulated news on Facebook about COVID-19 is either fabricated, fake, and/or misleading.	Disagree	120	34.0	200	53.6	84	31.1	404	40.6
	Neutral	122	34.6	80	21.4	65	24.1	267	26.8
	Agree	111	31.4	93	24.9	121	44.8	325	32.6
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table 7.** Publishing Facebook news on COVID-19 spread fear

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
I think publishing more news related to COVID-19 on Facebook has spread fear and panic among people.	Disagree	77	21.8	119	31.9	68	25.2	264	26.5
	Neutral	86	24.4	92	24.7	52	19.3	230	23.1
	Agree	190	53.8	162	43.4	150	55.6	502	50.4
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

In more detail, most American youths (45%) believe that the circulated news on COVID-19 is misleading unlike the majority of Egyptians (50%) who think otherwise. The Spanish participants, on the other side, are shattered between uncertain (34.6%) and do not believe that it is a fabrication (34%) (Table 6). Over and above, most Spanish males trust news on FB about COVID-19 (36%) whereas the majority of females are uncertain (37%).

Further analysis demonstrated that most of the Spanish youths aged 18-24 (36.3%) and 35 years (43.6%) are uncertain, while 35% of 25-29 years believe that the circulated news is fake; whereas the majority of 30-34 years (40.7%) trust Facebook news posts on COVID-19. On the other side, most Egyptian age groups trust the circulated news. As for the Americans, we noticed that more than half of 35-year-old participants believe the circulated news unlike the majority of other age groups who do not.

Within this framework, the non-parametric correlation Spearman's test showed a positive weak correlation between the trust level of Facebook news posts on COVID-19 and threat perception  $\rho=0.355$ ,  $p<0.001$ . Thoroughly, Egypt had a stronger correlation  $\rho=0.430$ ,  $p<0.001$  than the USA  $\rho=0.367$ ,  $p<0.001$ . Moreover, Spain had the weakest correlation  $\rho=0.214$ ,  $p<0.001$ . In sum, we reject the null hypothesis and accept the assumption of H3. Accordingly, there is an association between Facebook news trust on COVID-19 and threat perception.

### Mean World Syndrome as a Cultivation Effect

Our data exhibited more than 50% of those who follow Facebook news pages think that publishing more news related to COVID-19 on Facebook spread fear and panic among people ( $M=2.24$ ;  $SD=0.844$ ). Through comparing figures in the three examined contexts, the USA youths achieved the highest score in terms of believing it has spread fear and panic (56%) followed by the Spanish (54%) and Egyptian youths (45%) (Table 7). Even though most males and females think it has spread fear, we detected more females than males, with different points of 10%. It is worth noting that most Egyptian males (36%) do not believe it spread fear unlike females (51.3%) who believe otherwise.

In addition, more than 42% believe that things appear on the circulated news on Facebook more dangerous, than it really is in real life ( $M=2.18$ ;  $SD=0.798$ ). On a different note, many participants in Spain are uncertain, with a 0.5% difference points between those who agree (37.7%) and those being neutral (38.2%). Yet, most of the youths in the USA (44.8%) and Egypt (45%) agree (Table 8).

Even though most males and females agree that it may appear on the circulated news on Facebook that things are getting more dangerous and chaotic than in real life, yet females outweighed males in the USA and Egypt. We did not find a significant difference between age segments in the USA and Egypt whereas the majority agree. Nevertheless, more than 44% of Spanish youths aged 25-29 years agree, unlike other age segments who varied between disagree and neutral.

**Table 8.** Things are not getting more dangerous as it may appear on the Facebook news

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
Although it may appear on circulated news on Facebook that things are constantly getting more dangerous & chaotic, it really is not so in real life.	Disagree	85	24.1	92	24.7	67	24.8	244	24.5
	Neutral	135	38.2	113	30.3	82	30.4	330	33.1
	Agree	133	37.7	168	45.0	121	44.8	422	42.4
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table 9.** I feel that Chaos and anarchy could erupt whenever I consume news

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
I feel that chaos and anarchy could erupt anytime whenever I consume news on Facebook.	Disagree	128	36.3	130	34.9	75	27.8	333	33.4
	Neutral	102	28.9	102	27.3	63	23.3	267	26.8
	Agree	123	34.8	141	37.8	132	48.9	396	39.8
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table 10.** Mean world perception across Egypt, Spain, and the USA

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
Composite score–mean world perception.	Low mean world	170	48.2	197	52.8	127	47.0	494	49.6
	Moderate mean world	75	21.2	63	16.9	29	10.7	167	16.8
	High mean world	108	30.6	113	30.3	114	42.2	335	33.6
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

Similarly, there are 40% of young adults who feel that chaos and anarchy could erupt anytime they consume news on Facebook ( $M=2.06$ ;  $SD=0.854$ ). Most Spanish youths (37%) do not agree, unlike the majority of American (49%) and Egyptian youths (38%) who agree (Table 9).

The data analysis also showed that most males (38%) do not feel that chaos and anarchy could erupt whenever they consume news on Facebook unlike the majority of females (45%) who feel it will. In-depth, most males and females in Spain do not agree compared to their counterparts in the USA. Also, most Egyptian males do not agree (43%) unlike many females (46.7%) who agree.

Over and above, youths aged 18-24 years in Spain 37% do not agree while in Egypt 35.8% and the USA 43.3% agree. We also found that youths aged 25-29 years in the USA 58% and Egypt 42% agree. On the other side, most of those aged 30-34 years in Spain 40.7% and Egypt 40% do not agree. Moreover, Spanish respondents aged 35 years are neutral (35.9%); while those aged 35 years in Egypt varied between disagree and neutral.

By computing the composite score of the above items ( $M=1.84$ ;  $SD=0.899$ ), we observed that about half of the sample has low mean world perception (50%) followed by high (34%) and moderate (16.8%). Furthermore, we found that American youths achieved the highest score of having a high mean world perception (42%) followed by the Spanish (30.6%) and Egyptian youths (30.3%) (Table 10).

Even though most males (56%) and females (44.4%) have low mean world perception, we noticed more females (37%) than males (30%) with high levels. We did not find difference across the Spanish and Egyptian males and females where the majority have low perception. Nevertheless, most females in the USA have a high mean world perception (48.7%) unlike their male counterpart. Moreover, youths aged 25-29 years vary between low and high, with 41% in Spain and 50% in the USA. Additionally, more than half of those aged 35 years in the USA have a high perception. It is worth noting that all age groups have low mean world perception in Egypt.

In more depth, our data showed that most heavy news consumers on influencers' Facebook pages (46%) have a high mean world perception. Whereas light (64.4%) and medium news consumers (51.8%) have a low mean world perception. The results did not vary across the American and Egyptian heavy, medium, and light news consumers. However, we noticed that all news consumers have a low mean world perception in Spain.

In this sense, we found a weak positive correlation between holding a mean world perception and favoring of more restrictive policies on Facebook news coverage  $\rho=0.380$ ,  $p<0.001$ . The statistical analysis showed a moderate positive correlation  $\rho=0.516$ ,  $p<0.001$  in the USA; a weak positive correlation in Spain  $\rho=0.403$ ,  $p<0.001$ ; and a minimum positive correlation in Egypt  $\rho=0.269$ ,  $p<0.001$ . Therefore, we reject the null hypothesis and accept **H4**. Hence, our data demonstrated that mean world perception correlates with favoring a more restrictive policies and filters on Facebook news coverage during the COVID-19 pandemic. More outcomes are listed in [Appendix A](#).

## DISCUSSION

Our research emphasizes the importance of Facebook influencers in news dissemination during the pandemic of COVID-19. Also, it underlines their strong role in either informing or misinforming users. In this respect, we originally found that more than 75% of our sample across three different countries with different media and political systems follow news pages on Facebook to stay updated. This result reinforces prior research findings claiming that youths rely on SMIs' as a significant source of news to stay updated (Bergström & Jervelycke Belfrage, 2018; Deborah et al., 2019; Johnson & St. John III, 2020).

This research has genuinely identified the main actors in news dissemination and production on Facebook. Thus, contributing to previous literature that mainly were focusing on SMIs in the context of Twitter. Our analysis revealed that legacy media is still perceived as the most significant news source among youths. For instance, the most followed influential news sources on Facebook by the American, Egyptian, and Spanish youths are TV news channels, newspapers, and news agencies. These original findings comply with recently published studies claiming that traditional media is still highly consumed and trusted by the audience during the outbreak of COVID-19. Such research studies also stressed that offline media embrace digital technology and social network sites (i.e., Facebook) to disseminate their messages more broadly and expand their outreach (Casero-Ripollés, 2020; Limaye et al., 2020; Nielsen et al., 2020).

Building on these results in the context of Facebook, several scholars argued that people consume news more frequently during times of catastrophe, war, pandemic, economic crisis, political tension, etc. (De Coninck et al., 2020; de León et al., 2022; Nguyen & Nguyen, 2020). In this regard, our results highly align with the aforesaid, as we are currently facing a health crisis that led to a complete lockdown and other preventive measures. Therefore, most of our participants living in the USA, Spain, or Egypt are either heavy (41%) or medium news consumers (36%). This novelty implies that during times of threat, the frequency of news consumption does not change in countries with different political and media systems.

Through applying traditional mass communication theories in the context of digital media, we significantly found that news exposure can lead to the same cultivational impact regardless of the platform being used. Moreover, news consumption on influencers' Facebook pages during times of threat cultivated threat perception among young people. Our statistical analysis supported our research hypotheses, showing a significant relationship between news consumption, news trust, mean world, and threat perceptions. Meaning that the more youths consume news on influencers' Facebook pages, the more they perceive the world as a mean place, and the higher their threat perception is, as assumed in **H1**. Over and above, the more youths trust the circulated news posts on Facebook, the higher their threat perception will be, thus supporting **H4**. Therefore, many heavy news consumers have high threat perception levels and mean world perception.

Further analysis also reinforced **H2** and **H3**, highlighting a significant correlation between news consumption on influencers' Facebook pages, mean world perception, and favoring a more restricted news coverage on Facebook. The younger people consume news on such pages, the greater their preference for controlling news coverage on Facebook, as postulated in **H2**. Also, a high perception of the mean world leads to a greater acceptance of policies restricting news coverage, consequently supporting our **H3**. These new and distinguished findings imply that young people might favor a more restricted news coverage under threat and mean world perceptions.

The relevance and novelty of these findings are their consistency and that they do not change in different media and political environments. Considering that the three examined countries (the USA, Spain, and Egypt) have distinct ranks according to Reporters Without Borders Press Freedom. For instance, Egypt came as a non-free country and was described to have an alarming press freedom situation. While the USA was labeled

as somehow free since press freedom suffered during former President Donald Trump's administration. On the other side, Spain came as one of the top countries with press freedom.

In line with previous studies suggesting that the effect of frequent news consumption on women and younger people (aged between 18-35) is more intense, thus cultivating higher degrees of fear, worry, and threat (Ahmed et al., 2020; García-Castro & Pérez-Sánchez, 2018; Scarborough et al., 2010); we found that most females in Egypt and the USA and males in Spain have high degrees of threat perception and mean world syndrome compared to their counterparts. Similarly, those aged 25-29 years exhibited higher threat perception and mean world syndrome compared to other age groups. Accordingly, our results genuinely imply that each of these groups was consuming news much more on such pages than the rest, who were less frightened as their news consumption was less than the other categories. This finding, therefore, confirms our research hypotheses regarding the cultivation impact of heavy news consumption on influencers' Facebook pages.

More importantly, we reveal that news consumption on influencers' Facebook pages did not only cultivate threat perception among youths but also a relatively high degree of contradiction, confusion, and thus uncertainty. This contradiction was very evident in the responses of our participants on several matters. For instance, most of our sample believe that the circulated news on Facebook is exaggerated and there should be filters as well as policies that govern news coverage on this digital platform. On the other hand, they do not consider the circulated news on Facebook about COVID-19 as fake, fabricated, or misleading. Also, many respondents do not feel worried about their family's safety while perceiving COVID-19 and the spread of diseases as imminent threats to their existence.

This novel outcome suggests that contradiction can lead to high uncertainty degrees, thus contributing to threat perception. In this regard, many recently published studies showed that uncertainty connected with the shared COVID-19 news on Facebook produced significant psychological and psychiatric turbulences (Ahmed et al., 2020; Mansell & Ang, 2015; Nguyen & Nguyen, 2020; Rommer et al., 2020; Sood, 2020). Moreover, it led to post-traumatic stress disorder, depression, anxiety, fear, threat, panic disorders, and behavioral disorders (Sood, 2020).

Another new and influential contribution of our study shows that young people can be aware of the cultivation impact of their news consumption yet get affected. Our data indicate that most of our respondents are aware that things may appear on the circulated news on Facebook as more dangerous and chaotic than in real life. Not to mention that the majority also believe that publishing more news related to COVID-19 on Facebook has spread fear and panic among people. However, despite being aware most of our respondents have either high or moderate threat perception levels. This novel result adds to the previous studies examining the cultivation theory. Taken together, such an outcome suggests that even though the cultivation theory is still valid in the context of Facebook, there are some variances from the TV context. Young people nowadays are more alert to the negative effect of their news consumption on shaping their reality. Nonetheless, being aware did not mediate the cultivation impact of fear and terror due to hype news exposure.

In sum, hype news consumption during times of threat, as in the case of COVID-19, leads to high uncertainty degrees. Frequent news consumption through different platforms can have the same impact since it usually leads to confusion, anxiety, fear, and stress. Once these feelings reach a certain point, the information quality becomes subjective to personal bias, confirmation, and verification, leading to even more uncertainty, anxiety, fear, and threat (De Coninck et al., 2020; de León et al., 2022; Nguyen & Nguyen, 2020). Through this, we can infer that heavy and medium news consumption on influencers' Facebook pages during the COVID-19 pandemic led to confusion and contradiction, hence a high degree of uncertainty, that contributed to and reinforced threat as well as mean world perceptions.

The empirical results reported herein should be considered in light of some methodological limitations. In this regard, the values obtained in the statistical Spearman's test for correlation between our variables were relatively low. These low values can be a drawback of having a non-linear relation rather than a linear one, which results in smaller values than expected correlation coefficients. Regardless of yielding some moderate values, our data can be a starting point for future studies that go deeper with new analyses that examine these correlations in more countries.

## CONCLUSION

News consumption on influencers' Facebook pages can have the same impact as consuming news on any offline platform (i.e., TV, newspaper, etc.). One of the most prominent outcomes of news consumption is the cultivation effect. In this respect, we found a statistical significance between news consumption on influencers' Facebook pages and threat level. The younger people consume news on influencers' Facebook pages, the higher their threat perception is. This finding implies that even though the cultivation theory was developed in the 1960s, it has a significant impact nowadays with the advancement of digital technology and social network sites. These digital media have affected every aspect of our lives, including our news consumption habits, with more than 77% being heavy or medium news consumers. To that effect, most heavy and medium news consumers reported higher levels of feeling unsafe than the light news consumers of influencers' Facebook pages. Moreover, frequent news consumption led to favoring of more restrictive policies on news coverage, especially during times of threat.

Even though the cultivation assumption is valid on Facebook, we found some variation from the TV context postulation. Nowadays, young people are aware of the effect of their news exposure on shaping their perception. In this sense, most of our study participants think that Facebook news coverage of COVID-19 has spread fear and panic among people. Building on this, we infer that youths can be aware of the effect of their news exposure and consumption but still get affected. Hence, news consumption on Facebook has the same influence on feelings, understanding, and perceptions across politically different countries.

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## APPENDIX A

**Table A1.** Sex frequency of distribution

Sex	Country						Total	
	Spain		Egypt		The USA			
	n	%	n	%	n	%	n	%
Male	164	37.50	213	48.90	269	61.70	646	49.40
Female	271	62.00	222	50.90	167	38.30	660	50.40
Non-binary/third sex	2	0.50	1	0.20	0	0.00	3	0.20
<b>Total</b>	<b>437</b>	<b>100.00</b>	<b>436</b>	<b>100.00</b>	<b>436</b>	<b>100.00</b>	<b>1,309</b>	<b>100.00</b>

**Table A2.** Age frequency of distribution

Age	Country						Total	
	Spain		Egypt		The USA			
	n	%	n	%	n	%	n	%
18-24 years	113	25.9	143	32.8	65	14.9	321	24.5
25-29 years	119	27.2	161	36.9	155	35.6	435	33.2
30-34 years	155	35.5	112	25.7	173	39.7	440	33.6
35 years	50	11.4	20	4.6	43	9.9	113	8.6
<b>Total</b>	<b>437</b>	<b>100.0</b>	<b>436</b>	<b>100.0</b>	<b>436</b>	<b>100.0</b>	<b>1,309</b>	<b>100.0</b>

**Table A3.** Frequency of news consumption on influencers' Facebook pages

Item	Response	Country						Total	
		Spain		Egypt		The USA			
		n	%	n	%	n	%	n	%
Composite score–news consumption on influencers' Facebook pages.	Light	76	21.5	94	25.2	63	23.3	233	23.4
	Medium	149	42.2	117	31.4	89	33.0	355	35.6
	Heavy	128	36.3	162	43.4	118	43.7	408	41.0
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table A4.** Scale items measuring the extent of following news sources on Facebook

Item	Response	Country						Total	
		Spain		Egypt		The USA			
		n	%	n	%	n	%	n	%
Journalist (individual)	Never	35	9.9	65	17.4	50	18.5	150	15.1
	Rarely	57	16.1	64	17.2	45	16.7	166	16.7
	Sometimes	122	34.6	84	22.5	57	21.1	263	26.4
	Often	102	28.9	95	25.5	51	18.9	248	24.9
	Always	37	10.5	65	17.4	67	24.8	169	17.0
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Analyst or opinion maker (intellectual, political writer, political analyst, etc.)	Never	49	13.9	56	15.0	43	15.9	148	14.9
	Rarely	74	21.0	69	18.5	42	15.6	185	18.6
	Sometimes	125	35.4	92	24.7	73	27.0	290	29.1
	Often	86	24.4	93	24.9	51	18.9	230	23.1
	Always	19	5.4	63	16.9	61	22.6	143	14.4
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Politician (individual)	Never	81	22.9	75	20.1	62	23.0	218	21.9
	Rarely	84	23.8	69	18.5	48	17.8	201	20.2
	Sometimes	90	25.5	90	24.1	50	18.5	230	23.1
	Often	75	21.2	87	23.3	56	20.7	218	21.9
	Always	23	6.5	52	13.9	54	20.0	129	13.0
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Political party (organization)	Never	75	21.2	115	30.8	58	21.5	248	24.9
	Rarely	86	24.4	61	16.4	45	16.7	192	19.3
	Sometimes	105	29.7	91	24.4	61	22.6	257	25.8
	Often	65	18.4	57	15.3	43	15.9	165	16.6
	Always	22	6.2	49	13.1	63	23.3	134	13.5
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table A4 (Continued).** Scale items measuring the extent of following news sources on Facebook

Item	Response	Country						Total	
		Spain		Egypt		The USA		n	%
		n	%	n	%	n	%		
Member of Government & officials (i.e., president, prime minister, minister, governor, etc.)	Never	85	24.1	66	17.7	49	18.1	200	20.1
	Rarely	76	21.5	44	11.8	41	15.2	161	16.2
	Sometimes	94	26.6	88	23.6	69	25.6	251	25.2
	Often	74	21.0	88	23.6	54	20.0	216	21.7
	Always	24	6.8	87	23.3	57	21.1	168	16.9
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Activist (citizen, social movement, protest movement, etc.)	Never	49	13.9	81	21.7	44	16.3	174	17.5
	Rarely	62	17.6	52	13.9	43	15.9	157	15.8
	Sometimes	117	33.1	79	21.2	65	24.1	261	26.2
	Often	90	25.5	96	25.7	67	24.8	253	25.4
	Always	35	9.9	65	17.4	51	18.9	151	15.2
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Newspaper (print or digital)	Never	11	3.1	56	15.0	32	11.9	99	9.9
	Rarely	32	9.1	35	9.4	30	11.1	97	9.7
	Sometimes	85	24.1	76	20.4	56	20.7	217	21.8
	Often	124	35.1	102	27.3	75	27.8	301	30.2
	Always	101	28.6	104	27.9	77	28.5	282	28.3
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
TV news channel (national/international)	Never	15	4.2	31	8.3	22	8.1	68	6.8
	Rarely	25	7.1	36	9.7	19	7.0	80	8.0
	Sometimes	81	22.9	77	20.6	57	21.1	215	21.6
	Often	129	36.5	112	30.0	80	29.6	321	32.2
	Always	103	29.2	117	31.4	92	34.1	312	31.3
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
News agency	Never	37	10.5	52	13.9	27	10.0	116	11.6
	Rarely	51	14.4	38	10.2	24	8.9	113	11.3
	Sometimes	105	29.7	74	19.8	76	28.1	255	25.6
	Often	113	32.0	109	29.2	72	26.7	294	29.5
	Always	47	13.3	100	26.8	71	26.3	218	21.9
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Radio station	Never	59	16.7	106	28.4	52	19.3	217	21.8
	Rarely	60	17.0	51	13.7	33	12.2	144	14.5
	Sometimes	103	29.2	82	22.0	51	18.9	236	23.7
	Often	79	22.4	66	17.7	60	22.2	205	20.6
	Always	52	14.7	68	18.2	74	27.4	194	19.5
<b>Total</b>		<b>353</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>

**Table A5.** Mean world perception across sex

Item	Response	Male		Female		Total	
		n	%	n	%	n	%
Composite score–mean world perception	Light	105	23.1	127	23.5	233	23.4
	Medium	161	35.4	194	35.9	355	35.6
	Heavy	189	41.5	219	40.6	408	41.0
<b>Total</b>		<b>455</b>	<b>100.0</b>	<b>540</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
<b>Spain</b>							
Composite score–mean world perception	Light	23	17.8	53	23.7	76	21.5
	Medium	44	34.1	105	46.9	149	42.2
	Heavy	62	48.1	66	29.5	128	36.3
<b>Total</b>		<b>129</b>	<b>100.0</b>	<b>224</b>	<b>100.0</b>	<b>353</b>	<b>100.0</b>
<b>Egypt</b>							
Composite score–mean world perception	Light	46	26.3	47	23.9	94	25.2
	Medium	63	36.0	54	27.4	117	31.4
	Heavy	66	37.7	96	48.7	162	43.4
<b>Total</b>		<b>175</b>	<b>100.0</b>	<b>197</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>
<b>The USA</b>							
Composite score–mean world perception	Light	36	23.8	27	22.7	63	23.3
	Medium	54	35.8	35	29.4	89	33.0
	Heavy	61	40.4	57	47.9	118	43.7
<b>Total</b>		<b>151</b>	<b>100.0</b>	<b>119</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>

**Table A6.** Mean world perception across age

General		Age								Total	
		18-24 years		25-29 years		30-34 years		35 years			
Item	Response	n	%	n	%	n	%	n	%	n	%
Composite score– mean world perception	Low mean world	124	53.9	150	43.9	186	54.4	34	41.5	494	49.6
	Moderate mean world	50	21.7	50	14.6	48	14.0	19	23.2	167	16.8
	High mean world	56	24.3	142	41.5	108	31.6	29	35.4	335	33.6
<b>Total</b>		<b>230</b>	<b>100.0</b>	<b>342</b>	<b>100.0</b>	<b>342</b>	<b>100.0</b>	<b>82</b>	<b>100.0</b>	<b>996</b>	<b>100.0</b>
Spain											
Composite score– mean world perception	Low mean world	53	58.2	40	40.0	62	50.4	15	38.5	170	48.2
	Moderate mean world	18	19.8	19	19.0	24	19.5	14	35.9	75	21.2
	High mean world	20	22.0	41	41.0	37	30.1	10	25.6	108	30.6
<b>Total</b>		<b>91</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>123</b>	<b>100.0</b>	<b>39</b>	<b>100.0</b>	<b>353</b>	<b>100.0</b>
Egypt											
Composite score– mean world perception	Low mean world	56	51.4	70	50.0	63	60.0	8	42.1	197	52.8
	Moderate mean world	29	26.6	20	14.3	10	9.5	4	21.1	63	16.9
	High mean world	24	22.0	50	35.7	32	30.5	7	36.8	113	30.3
<b>Total</b>		<b>109</b>	<b>100.0</b>	<b>140</b>	<b>100.0</b>	<b>105</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>	<b>373</b>	<b>100.0</b>
The USA											
Composite score– mean world perception	Low mean world	15	50.0	40	39.2	61	53.5	11	45.8	127	47.0
	Moderate mean world	3	10.0	11	10.8	14	12.3	1	4.2	29	10.7
	High mean world	12	40.0	51	50.0	39	34.2	12	50.0	114	42.2
<b>Total</b>		<b>30</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>

