

Understanding the Construction of Journalistic Frames during Crisis Communication

Editorial Coverage of COVID-19 in New York Times

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Abstract

The COVID-19 pandemic is a global crisis with every country being affected. It is one of the widely reported crisis over the past few months. Crisis of such degree and range of influence demands a well-informed reporting with an understanding of the possible impact. As the media coverage is largely influenced by journalistic frames and their interpretations, it is highly important and relevant to study this crisis from a framing perspective. Therefore, this research aims to explore the construction of frames, to what extent they exist in the text in comparison to each other, and how they appear across different time periods by studying the online editorial coverage of the COVID-19 crisis published by New York Times. Eight constructive and seven negative frames have been deductively coded to conduct the research through qualitative content analysis with quantitative elements of the editorials published during three specific periods in January, February, and March of 2020. Constructive frames have been coded with the help of constructive journalism which is used as an analytical concept in this research, while negative frames have been retrieved from literature on the framing of previous crises. The analysis suggests that the editorial coverage of the COVID-19 crisis by New York Times is overall constructive but with focus on few dominant constructive and negative frames. Among constructive frames the most dominant frames are 'solution-oriented' and 'mathematical'. Among negative frames the most dominant frames are 'blame attribution', frame of 'consequences' and 'conflict'. Findings revealed that blame attribution is dominant as compared to the frame of solidarity and denial is dominant as compared to the frame of concern. Furthermore, the analysis reveals that the construction and appearance of frames change over different time periods with changed intensity level of crisis. This change requires versatile coverage and shift in attention towards newly emerging challenges.

Keywords: coronavirus, COVID-19, New York Times, constructive journalism, crisis communication, framing

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1. Introduction

Throughout history, the world has been struck by a number of infectious outbreaks such as Influenza, Zika virus, Yellow fever, Cholera, Ebola and Dengue to name a few. Today we are dealing with another challenge of combating a global health crisis in the form of a respiratory illness named COVID-19 (World Health Organization, 2020). This disease originated in December 2019 and spread internationally changing its status from epidemic to a pandemic within weeks (Schumaker, 2020; Penna and Stephens, 2020). Research shows that Coronavirus is less deadly than previous outbreaks of related illness but it's far more infectious ultimately raising the chances of a quick spread (Callaway *et al.*, 2020). As of June 21, globally 9,026,601 cases have been discovered while the death toll keeps rising giving us the total count of over 469,399 patients worldwide with a recovery rate of 86.9 percent (Worldometer, 2020).

COVID-19 has caused worldwide panic and economic exhaustion. According to business insider, a third of the world population experienced lockdown during this crisis in one way or another (Kaplan, Frias and McFall-Johnsen, 2020). Some of the countries like Russia, Saudi-Arabia, Canada, the US and Brazil have imposed partial lockdowns while others such as India, Iran, Pakistan, Italy, Spain, and UK have declared full lockdowns in cities and specific affected areas (BBC, 2020). This situation has impacted global shares, travel industry, industrial productions, and food industry enormously. It's expected that GDP will suffer worldwide and it will be considerably lower than 2019 (Jones, Brown and Palumbo, 2020). Business industry is suffering due to COVID-19 but a small chunk of media organizations have been benefiting from this situation. For example, according to Koeze and Popper (2020), searches for COVID-19 updates have been considerably high resulting in increased readership of local and established newspapers. According to a report online news is being streamed more than ever (Tracy, 2020).

While one might guess that news has an impact on the audience's perception, the use of specific frames in media exerts a significant impact on the cognitive responses of the audience (Price, Tewksbury and Powers, 1997). It's interesting to see that previous research identified some common frames to appear in the health crisis communication such as blame attribution (Reynolds and Seeger, 2005; Mayor *et al.*, 2013), solidarity (Lin and Margolin, 2014), concern (Gerlach, 2016; Jerit *et al.*, 2019) and denial (Coombs and Holladay, 2010). The presence of such frames suggests that media plays a great role in communication during a crisis which may end up in the exploitation of the issue at hand resulting in political impacts and policy changes

(Boin, T Hart and McConnell, 2009). This situation makes crisis communication and responsible reporting even more important as it requires understanding the sensitivity of the issue as well as its potential impact on the public.

While there have been studies focusing on the mass media communication and response towards global crisis specifically related to public health (Barde, 2003), a major portion of previous research seems to focus on “conflict and framing” as their main theme (Bardhan, 2001; Ryan, 2004; Yu *et al.*, 2011; Staniland and Smith, 2013). Although this approach is interesting, it appears to be neglecting the aspect of constructive framing. Only a few researchers have been known to address the aspect of constructive framing in terms of crisis communication (Zhang and Matingwina, 2016).

Therefore this thesis focuses on studying and analyzing the editorial coverage of the COVID-19 crisis in the editorials published by New York Times during three different sets of days in three months. It intends to incorporate the concept of constructive journalism in this research to identify the approach and construction of the frames while focusing on crisis communication. Framing theory has been used as the main theory in this research and frames have been explored through the deductive approach. This research is unique in the sense that it attempts to assimilate constructive journalism and look for its application in editorial coverage through framing.

2. Aim and Research Question

2.1. Research Aim

This research aims to explore the construction of frames, to what extent they exist in the text in comparison to each other, and how they appear across different time periods by studying the editorial coverage of COVID-19 published by the New York Times. The research is conducted through qualitative content analysis with quantitative elements of the editorials published in January (28th–30th), February (26th-28th) and March (27th-28th) of 2020.

2.2. Research Questions

The following research questions have been formulated in order to explore frames in editorial coverage of New York Times on COVID-19. The reason of some frames specifically

mentioned in these research questions is that this study seeks to investigate and compare the contexts of their appearances in the text.

This study intends to investigate the following research questions:

1. *What is the overall framing orientation of editorial coverage by New York Times on the subject of COVID-19 crisis?*
2. *What are the prominent constructive and negative frames in the editorial coverage of COVID-19 crisis?*
3. *How do the editorials transport the solidarity frame in comparison to the frame of blame attribution, and the denial frame in comparison to the concern frame?*
4. *How has the framing of the editorial coverage on COVID-19 developed during January, February and March 2020?*

2.3. Disposition

First, this research gives a brief overview of COVID-19 crisis along with the background on the chosen case and history of pandemics. Secondly, constructive journalism is contextualized to enlist its core themes for data analysis. Thirdly, the focus shifts towards theoretical implications by scrutinizing “Situational-crisis communication theory” and “Framing theory”. A combination of these concepts is utilized in this research due to their association with crisis communication and application in communication research. The fourth section investigates the research questions and analyzes the data. Then results are discussed extensively. Finally, conclusions are drawn and suggestions for future research are stated.

3. Background

3.1. New York Times

New York Times was founded in 1851 as a New York Times daily newspaper. It is recognized as a respected newspaper with worldwide readership and influence. It is ranked 18th by circulation in the world and 3rd in the U.S (Cision, 2020). New York Times has received 27 Pulitzer prizes which is considered a record (New York Times, 2020). Its wide readership and influence makes it a fair choice to collect sample for this research. It’s interesting that New York Times is the preferred choice for purposive sampling while focusing on international coverage in research. The reason might be the availability of the online archives. Another

reason can be that despite being a national newspaper it has international correspondence (Riffe, Stephen and Frederick, 2014).

3.2. Pandemics and mass communication

A pandemic is the, “worldwide spread of an infectious disease” (World Health Organization, 2010). The progress of travel industry has also increased the chances of a large number of people being at the same place at the same time. Thus increasing chances of a pandemic spread across different countries (Smith, 2006). A recent example of this would be the spread of Coronavirus at the end of 2019. Pandemics may have serious social, cultural, economic, physical and psychological impacts (Veil *et al.*, 2008). Outbreaks of infectious diseases require attention towards the media sphere in order to ensure accurate reporting. That’s why communication through mass media is considered an important aspect of risk management (Vaughan and Tinker, 2009).

One of the first important steps in dealing with a pandemic is to communicate timely and accurate information to the public. Which can further help in spreading information about risk management and decision making on the individual level (Coombs, 2010). Literature on crisis communication suggests the use of the mass media as a compelling medium during a pandemic (Cho and Gower, 2006; Vaughan and Tinker, 2009). Using mass media to communicate and inform during a crisis requires a reasonable interpretation of the ongoing situation. So that public can self-assess the chance of risk in result of their actions (Gerwin, 2012:630).

The media often propagate the dominant framework of interpretation using specific terminologies of risk and responsibility. Which provides a medium to aid health communication through connecting discourse on media interpretations with the society (Joffe and Haarhoff, 2002; Briggs and Mantini-Briggs, 2003; Farmer, 2006). But it can also create framing representations around the crisis by interpreting diseases as social processes (Herzlich and Pierret, 1989:1235-1242). These representations are formed through symbols or frames and often result in general public blaming the first-hand affected party for putting others at risk by not being informed or participatory enough towards society (Briggs and Mantini-Briggs, 2003). Therefore, media coverage can be considered a good data source to analyze the stigma around epidemics.

4. Literature Review and Theoretical Framework

It became clear by mining through literature on crisis communication that the most studied issues regarding pandemics in research are Influenza (Reynolds and Quinn Crouse, 2008), AIDS (Wu, 2007), Ebola (Kilgo, Yoo and Johnson, 2019), Cholera (Lin *et al.*, 2016) and SARS (Zhao and Xiang, 2019). In the case of Coronavirus, the literature as of yet concentrates on how crisis communication is transported through media and framing, and how the identified frames might positively or negatively affect the audience.

New York Times has been selected for sampling due to extensive research on its journalistic framing through newspapers which can be helpful considering the availability of literature. A growing body of literature has suggested that newspapers hold the power to set the momentous apart from the trivial. Which means that newspapers seem to give special attention to some stories while downplaying others and in result impacting reader's perception of specific issues (Althaus and Tewksbury, 2002). Undoubtedly, news media is an important part of fast communication during pandemics but it can also be the medium of misinformation and ambiguous interpretations (Eichelberger, 2007:1293). Fischhoff (1995), seems to agree with this approach regarding the use of mass media during a crisis and states that mass media communications have not been immaculate of inaccuracies. He argues that although psychologists have distinguished between "capacity" and "performance" but an organization or individual may not be able to balance it in the context of how much effort is being made as compared to how objective the result is. Thus resulting in inaccurate communication. Similarly, Cottle (2008:167), states that politics and its vested interests somehow manage to generate over reporting on certain issues through their approach to powerful designations around media organizations. On the other hand, McLuhan and Fiore (1967), takes a different approach and suggest that the audience itself is the manager of news by maintaining or losing interest in a subject.

4.1. Linking Constructive Journalism to Crisis communication

Constructive journalism is usually considered as, "two-eyed journalism" which provides an overall perspective on the matter under study (Constructive Institute, 2016). This research intends to use this approach due to its nature of providing a more comprehensive picture of the issue at hand.

Hermans and Dork define constructive journalism as, “action-oriented”, “solution-oriented” and “role-oriented” practice that considers citizens being able to make self-substantiated decisions concerning changes in society (Hermans and Drok, 2018:686). Other researchers define it as “public-oriented” (Hermans and Gyldensted, 2019:536), “future-oriented” (Meier, 2018:776), and “watchdog-oriented” approach (Baden, McIntyre and Homberg, 2019: 1944). According to previous research, traditional journalism does not provide enough freedom and hinders the journalist’s role only to a watchdog and observer. On the other hand, constructive journalism serves as a platform for a journalist to make bold decisions and take control of power by holding institutions accountable for their actions. In this way, constructive journalism goes beyond the scope of traditional journalism by being an active approach, which helps in building action-driven behaviors (Hanitzsch and Vos, 2018).

Morse (2009), states that anxiety and fear affect the objectivity of individuals as well as organizations resulting in destabilization, oppression of the public, and “affect-induced” irrational behavior. There have been numerous studies to investigate the impact of constructive and non-constructive news on the audience. A majority of this previous research suggests that opting for non-constructive reporting causes less user engagement, anxiety and depression as compared to constructive news which results in lower anxiety, decreased level of depression and higher user engagement among news consumers (Baden, McIntyre and Homberg 2019; Van Dijk, Kleemans and Eichelsheim, 2019). Kleemans, Schlindwein and Dohmen (2017)’s analysis of TV news perception also confirmed the hypothesis that constructive news results in more positive emotional responses than negative ones when comparing with non-constructive. In short, the literature pertaining to constructive journalism strongly suggests its positive impact on audience’s engagement, perception, and well-being.

On the other hand, Meier (2018:776), performed experiments on different levels to understand the impact of constructive journalism on the audience. The results turned out to be multifaceted with little evidence of constructive reports being shared and discussed more than non-constructive on the meso and macro level. The study also concluded that constructive journalism may decrease the anxiety of readers which does resonate with other research but it also reports that constructive journalism does not increase interests or inform audiences better. Hence defying the claims of the advocates of constructive journalism. These multifaceted results originating from above-mentioned research suggest that although constructive journalism has been studied by many authors, it still lies in the focus of research and can be

explored further in relation to other journalistic aspects such as crisis communication and framing.

Constructive journalism is intriguing in terms of crisis communication due to its connection with framing, communication and responsible reporting. It may complicate the overall concept of communication but its properties suggest that it is completely in line with the response strategies of crisis communication. It's interesting to see that Cooper (2002), defined frames as a way to shape how people define problems also affecting how the attribution of responsibility or blame is established and solutions are suggested. The same goes for constructive journalism which involves the elements of responsibility, attribution, solutions, cause and effect. It has been around for a while and many international organizations such as The Economist, The Danish Broadcasting Company, the Guardian, and The Local are practicing it as a part of their policy. BBC World's "solution-focused journalism," and the weekly column "Fixes" by the New York Times is also based on constructive journalism.

In this research, Hermans and Gyldensted (2019)'s identified constructive frames are adapted as follows.

- *Solution-oriented*: Includes causes, response, implementation, and limitation of the problem. It must convey an insightful lesson on the social problem under study
- *Future-oriented*: Discussion on how the situation will unfold in future and inclusion of what-now?
- *Public-oriented/empowerment*: Should include common grounds and variety of perspectives to engage the public
- *Inclusiveness/ Diversity*: Should include perspectives/stories of different communities from all over the world. It should develop an argument against the polarization created by the media
- *Mathematical*: Should include statistics and proper context of the situation
- *Co-creation*: Should use the kind of language which reflects upon empowerment and engagement through highlighting the efforts of the public

In addition, two more frames were considered for this study:

Previous studies have shown that the frame of 'concern' in media stems from the preferences and concerns expressed by the public (Baron, 2006; Arnold, 2013; Lazard *et al.*, 2015). Which

then can act as a driving agent for highly effective communication (Branton and Dunaway, 2008). In this research the frame of concern is defined as follows:

- *Concern*: Expression of concern for unaffected areas and people who are likely to be heavily impacted by the crisis as well as its international spread

Another important frame used in this research outside Hermans and Gyldensted's (2019) identified constructive frames is the frame of solidarity. Lin and Margolin (2014) considered solidarity to be a strong expression that was reflected through media and considered it closely related to empathy. In this research the frame of 'solidarity' is defined as follows;

- *Solidarity*: Showing empathy for the parties involved and using language that makes the party being attributed to looking strong, speaking in a party's defenses and suggesting possible recovery rather than entirely focusing on the damage (Mackie, Devos and Smith, 2000; Collins, 2004)

One of the many problems in identifying the frames is to differentiate between constructive and solutions journalism. This problem was also determined by a study based on China concluding that journalistic practices often include constructive elements but the concept is very vague and not entirely differentiated from solutions journalism. Thus it's a matter of explaining the solutions rather than providing the context of the problem itself (Zhao and Xiang, 2019). This problem has been avoided in this research by clearly distinguishing solutions journalism and constructive journalism and keeping in mind that constructive journalism may have all the properties of solutions journalism but solutions journalism does not constitute all the qualities of constructive journalism. In this research solution-oriented text is considered part of the constructive frames.

4.2. Framing Theory

Human neutrality and objectivity is considered an instrumental idea but according to Schudson, (1989) and Zelizer (1993), it's not possible to take in this practice completely. Rather, news can be defined as a product of social construction which is created under the influence of several factors. This social construction further might be the product of other people's beliefs and ideas (Chong and Druckman, 2007:105). Framing is used in this research to analyze those factors due to its ability of exploring imbedded ideas of interpretation in news.

Theoretical foundations of framing theory are located in interpretive sociology considering interpretation, reality and situational interaction (Ardèvol-Abreu, 2015). Framing theory has been considered as one of the most pertinent theories in mass communication thanks to its applicability, key aspect of “interpretive schema” and public discourse. It is argued that framing is focused on applicability to the extent that it tends to alter the process of opinion-formation in audience’s mind (Zhou and Moy, 2007). Framing is considered to be the “bridging concept” of cultural cognition in a society (Gamson and Modigliani, 1987). It also influences the narrated reality and the process of cultural construction (Van Gorp, 2007). Journalists, editors and the public also see the world in an interpretive way just like the rest of us. They also try to make sense of the information thrown at them with the same spectacles as we do. Which makes it easier to understand that the presence of certain frames and patterns of selection to decide newsworthiness is unavoidable (Draper, Best and Dennis, 1977).

Other researchers defined framing theory as a matter of attention towards certain messages (Levitt and Gitlin, 1981). Entman (1993:52), defined framing in terms of “selection” and, “salience”. His understanding of framing in communication research suggests that frames are used to promote a particular issue or enhance the information on treatment/recommendation in the case of a problem. These adjustments to communication messages results in the “influences over human consciousness exerted by the transfer of information”. Framing is considered to be of two types namely, “episodic framing” and, “thematic framing”. Iyengar (1991), defined thematic framing to be the portrayal of a crisis through stating its systematic details such as causes, impacts and consequences. While episodic framing refers to the use of a particular event or figure which can be used as an unreliable exemplification.

Despite decades of research, framing continues to be the target of debates and research concerning its role in the construction of cultural, political and societal patterns through mass communication and journalism. This concept has been used to investigate various issues related to crisis communication as case studies, such as framing of political crisis (Scheufele, 2000), scientific argumentation (Berland and Hammer, 2012), biotechnology news (Matthew C. Nisbet and Huges, 2006; Marks *et al.*, 2007) and media coverage of global climate change (Wolsko, Ariceaga and Seiden, 2016). Previously, studies have also been done on editorials and headlines of editorials in order to study lexical features and framing metaphors (Wallis and Nerlich, 2005; Shie, 2010; Bonyadi and Samuel, 2013). The reason might be that it is

considered a crucial tool for shaping public ideas and perception through different patterns of presentations (Levitt and Gitlin, 1981).

4.2.1. Frames as key elements in Framing

This thesis intends to analyze the constructive and negative frames which were identified through literature and appeared in the sample.

It is argued that the news reporting process is not immaculate of framing due to the chain of sources being used in news. The use of sources makes it impossible to let the information be untainted of human speculations and superimpositions of frames (D'Angelo, 2010). While Wicks (2005:346), states that there is little chance of the existence of objective messages in media. He calls the messages produced by media as mere interpretations of reality created by the writer. Thus, frames in media particularly news could impact public discourse creating or distorting different versions of reality.

Goffman (1970s), referred to framing as an interactive framework that influences experiences by creating a schema. Bateson (1972), defined frames as “spatial and temporal bounding of a group of interactive messages”. While Hayes (2019:452), considers frames as simply the medium to make assumptions in order to define what should and what should not be assumed to exist in the world. He further states that frames are, “data structures” which contain named, “slots”, which can be filled with certain interpretations or identifiers. Those interpretations can further contain framed identifiers. Brüggemann (2014) seems to agree with this and states that one should expect to find “framed-frames” in a journalist’s work because their interpretation of reality is also influenced by individual, cultural, societal and organizational perceptions.

Frames have an interesting trait of changing and varying across developmental stages when it comes to appearing in media coverage of a crisis (Gitlin, 1979; T. J. Shih, Wijaya and Brossard, 2008). While studying news coverage of SARS in China and the US, Beaudoin (2007:522) stated that “it appears that the news frames are a function of both news environments and the timeline of an epidemic”. Blakely (2003), conducted a study on New York Times’s reporting on three influenza outbreaks to understand the social construction of the crisis and concluded that each time reporting patterns turned out to be different than the previous ones. She states that the initial coverage reflected the frames of panic and anxiety. While subsequent reports included a more scientific approach and trust in health officials, they also included extensive

debate over the new diseases which would, “obliterate the disease of yesterday”. Similarly, a study on media coverage of the flu pandemic revealed that frames differ in patterns across pre and post stages of a crisis (Pan and Meng, 2016:100).

Previous research has illuminated that a few frames were more dominant than others like, ‘blame attribution’ (Hallahan, 1999; Buus and Olsson, 2006). Blame attribution is defined as framing of the cause of the disease (Blakely, 2003a). Semetko and Valkenburg (2000:96) studied and defined ‘attribution’ as a medium of attributing responsibility towards an individual or government in newspapers and social media. They further elaborated that ‘attribution of blame’ is mostly used in major newspapers. Another important frame that appeared in previous research is the frame of ‘conflict’ which is defined as “the conflict between two or more subjects such as government and business or people versus nature” (Dotson *et al.*, 2012:70).

Sensationalism has been a consistent frame in news and is defined as the use of “emotionally-charged language” (Dudo, Dahlstrom and Brossard, 2007:438) and loaded words in order to exaggerate or add a dramatic effect (Klemm, Das and Hartmann, 2016:17). Another important frame that is also considered as one of the crisis-response strategies is the frame of ‘denial’ defined as denying that there is any crisis or trying to downplay the intensity of a crisis. Previous research clarifies at many points that denial is not simply the refusal of a crisis but its purpose is to reduce the perception of responsibility (Coombs and Holladay, 2010).

One of the most relevant frames in crisis coverage is the frame of ‘consequences’ that has been studied mostly in terms of economic consequences. It can be identified in coverage in a way that it interprets events in terms of losses or benefits on an institutional, national, or global level (Dotson *et al.*, 2012:70). Another interesting frame is the frame of ‘uncertainty’ which seems to appear with risk evaluation and is defined as the expression of doubts about the unknown and fear of anticipated risks (Scholte, Vasileiadou and Petersen, 2013:7). One of the negative frames that is often affiliated with the warmongering and conflict is the frame of “us” and “them” which is considered as a way to divide the world into categories while focusing on sexuality, ethnicity and nationality (Kellner, 2003:7).

In summary this research used the following list of negative frames extracted from previous literature to analyze the text through qualitative content analysis with elements of quantitative approach.

- *Blame attribution*: Use of language or words that reflect the attribution of responsibility to a certain party
- *Conflict*: Focusing on the conflict and arguments of different parties. Debating the opinions and different approaches of stakeholders
- *Consequences*: Focusing on negative consequences that may generate anxiety rather than positive outcomes
- *Sensational language*: Use of sensational, exaggerating words and language structure
- *Uncertainty*: Use of language that reflects the uncertainty of the situation
- *Us and them*: Using us and them for certain parties while discussing different approaches to a crisis
- *Denial*: Refusing to accept the intensity of a crisis by downplaying it and suggesting that the crisis is getting more attention than it deserves

4.2.2. Framing and Crisis communication

Stories related to health crisis are prominently featured in news media due to its relevancy and ability to relate with the public. Media coverage of crisis and especially health care suggests the obvious importance humans denote to the fear and concern related to a global level health crisis. Studies have analyzed media coverage of health across a wide range of disciplines and methodological approaches (Franklin, 2002:118). A broad range of factors influence the news coverage as primary influencer or secondary influencer. At primary level the main actors can be considered the journalists and the editors while on secondary level the organizations and public act as influencers (Franklin, 2002:123).

Previous research showed expanded use of framing theory to identify frames in health and crisis communication. One study argued that news coverage of epidemics was more likely to be influenced by journalist's criteria of newsworthiness (Oh *et al.*, 2012). Some researchers specifically focus on the importance of being media disseminators communicating "risk-management" issues. They suggest the appropriate use of frames and responsible handling of the frame "scientific uncertainty" (Hilton and Hunt, 2011; Anunne, Phuong Thuy, Yin Yan and Lifeng, 2019). These arguments are supported by the research of Angeli (2012:219), who suggests that the involvement in media-based communication should be carried out with a sense of moral responsibility. She insists that electronic healthcare messages contain frames

and media practitioners must be aware of their possible impacts on their decision-making process as well as the perception of the public.

News media gives limited attention to certain issues at any given moment and the amount of attention given to any crisis may go through competitive selection (Schmidt, Ivanova and Schäfer, 2013). Research focusing on AIDS points out the possibility of attention being bound to the popularity, nature, localization, ethnicity, law and stakeholders involved in the issue (Colby and Cook, 1991; Wu, 2006; Persson and Newman, 2008; Kiwanuka-Tondo, Albada and Payton, 2012:369; Stevens and Hull, 2013). To put it another way, journalistic reality often supports the power structure in a society willingly or unwillingly giving importance to the elite through framing (Spratt, 2001:75).

In contrast to that, some researchers found framing to be an effective practice to initiate informed risk-assessments (Dudo, Dahlstrom and Brossard, 2007) and persuasive call for solutions (Kuvaas and Selart, 2004:200). Kee, Ibrahim and Mustaffa (2010:120) supports the claim that framing does help to understand issues better but media practitioners also need to understand that framing is the mere categorization and it must not take over the whole idea of objective reporting.

Lee and Basnyat (2013) observed that the impact of “thematic coverage” is more likely to generate collective action from public in case of a global pandemic. This hypothesis of careful thematic coverage being informative and helpful in crisis seems to be unreliable due to not being researched enough. Prati, Pietrantonio and Zani (2011:655) made an important suggestion to “elicit compliance with the recommendation”. They stated that to increase the effectiveness of preventing global pandemics, one must understand the importance of cognitive aspects in relation to emotional responses. Roney, Higgins and Shah (1995) also suggest that “emotion” being the driving force of action in public should be considered while creating frames and it must be acknowledged that different themes might trigger different emotions.

Another study conducted in Sweden and Australia figured that Sweden showed a high vaccine rate as compared to Australia due to the framing of health messages to increase the public’s perception and knowledge on risk-related behaviors (Sandell, Sebar and Harris, 2013). Liu and Kim (2011) made an interesting consideration on behalf of that. They studied how organizations rely on social media to frame situations. This research argued that organizations need better leadership which can understand the potential benefits of framing to incorporate

social media into crisis communication. It's possible that framing can be used as a constructive approach but there needs to be unique aspects of research studies to confirm its various implications.

The literature review above discussed that framing might or might not be used for effective crisis communication. This research is working on finding how much of constructive or negative framing has been used to comment journalistically on COVID-19.

4.3. Situational Crisis Communication Theory (SSCT)

Situational crisis communication theory is used in this research to identify and explain the frames of blame attribution, denial, concern and solidarity. These frames are specifically explored through situational crisis communication theory due to these being studied and explored as strategic communication frames in crisis communication theory. A crisis calls for an efficient response in contemplation of communication. It requires the organizations and media outlets to be open and sympathetic in order to refrain the public from taking irrational decisions (Wray and Jupka, 2004). This amounts to the journalistic approach of taking consequences such as social responsibility, ethical issues, policy changes, objective reporting, and disinformation into consideration. Different situations during a crisis may require different responses on behalf of response protocols. In a crisis, communication may have to be direct explaining the grave dangers public can face in case of wrong guidance or it may have to be calculated in order to avoid panic and anxiety among the public (Brashers, 2001).

Research in the field of crisis communication has been quite vast and descriptive exploring various aspects. One of the theories of crisis communication is "situational crisis communication theory" (SSCT), which states that "crisis managers should match strategic crisis responses to the level of crisis responsibility and the reputational threat posed by a crisis" (Coombs,2007). In other words, this theory focuses on 'responsibility' and 'reputation' as the main themes which are supposed to be dealt with the creation of certain frames. Coombs also seems to agree with Druckman (2001) who considers the purpose of framing as salience and emphasizes operating through communication and perception frames. Choi and Chung (2013) explain SSCT in terms of 'public's perception' and suggest choosing response strategies accordingly, while Boin, 'T Hart and McConnell (2009), suggests the use of response strategies to shape the perception through framing. It might also be used through constructive framing of

the crisis. Pan and Meng (2016) proposed the idea of studying crisis communication through unique concepts to investigate the unknown health crisis aspects.

Nevertheless, SSCT has been extended and used in the studies related to framing of reputation and its impact on public's behavior (Lee, 2005; An and Gower, 2009; Bowen and Zheng, 2015). Previous research shows that SCCT is an important theory because it considers the adjustment of information through framing. In this regard, Kim and Liu (2012) indicated that traditional media came out to be the source of more in-depth but less adjusted, instructive and constructed information than social media. Which explains the statistics depicting that 65 percentage of north Americans trust traditional media as compared to 34 percent of North Americans trusting social media for news (Watson, 2020).

It's interesting to see that Coombs considers 'frames' as the driving element in his theory but he does not mention it clearly in the crisis situation model. It may leave one wondering about the applicability of this theory on a crisis where framing is inevitable. But on the other hand, Coombs and Holladay (2003) argues that crisis can also be considered as a type of frame itself. Different types relate to different frames and feature different aspects of the crisis. According to Coombs (2007), each crisis will generate its own predictable "responsibility-attribution" level which can be grouped into 'victim-cluster', 'accidental cluster' and 'preventable-cluster'. By identifying the cluster of the crisis one can predict how much responsibility or accusation would be attributed to a certain party.

SSCT crisis types are defined in terms of how they can be applicable to understand different patterns of attribution and blame. Following is an adapted list of these clusters:

- *Victim Cluster:* Rumors and fabrications are used to impose frames of victimization while considering the party who somehow initiated the crisis as victims.
- *Accidental Cluster:* A crisis is thought to be the result of an accident imposing the frame of "accidental-error" to attribute the blame. The event is considered unintentional or uncontrollable by the party involved.
- *Preventable Cluster:* Blame is attributed in the sense of a crisis being preventable and a result of careless misdeeds. The event is considered intentional and purposeful.

This research aims to categorize the frame of 'blame attribution' further into a victim, accidental or preventable cluster.

It's thought-provoking that this theory further talks about the "deny crisis response strategies" which are explained in a way that these can also be considered as frames for the attribution of blame. These strategies are used to shape the attributions and reduce or increase the impact of the crisis. One of the identified crisis communication strategies is denial which is defined in this research as denying that there is any crisis. This strategy discusses that the crisis is not as bad as it is described to the public. It implies that the party or organization in charge has not lost control over the crisis. This strategy has been used in this research as an identified frame in the text. The frame of 'denial' has been studied previously in relation to framing theory.

According to An and Gower (2009), if the crisis appears to be preventable then the media most likely will frame the party which was involved first hand through blame attribution, responsibility and morality frames. Such frames also allow media to use the denial strategy and minimize the blame. Cluster of blame attribution may have a direct impact on other frames such as denial, concern and solidarity. If media is depicting a specific party in a victim-cluster blame attribution frame, there is a possibility that frames of solidarity and concern will increase towards that party. Similarly, landing in the category of preventable cluster may decrease solidarity towards that particular party because it will be perceived that this crisis could have been prevented. There is another study with a similar approach focused on how media cover and use crisis response strategies and how do they differ by crisis type. Findings suggested that reporting seems to attribute blame on the individual level in case of preventable crisis. The preventable crisis seems to reflect the frame of denial more as compared to an accidental crisis (An, Gower and Cho, 2011).

5. Methodology

In this chapter different sections are developed involving sampling, coding strategy, operationalization, and delimitations. This research paper is focusing on the editorials published on the COVID-19 crisis in New York Times. The aim of this research paper is to identify constructive and negative frames and to compare how the reporting changed over different periods of time. Deductive approach has been used to define and code these frames. It also focuses on the comparison of how much and when certain frames appeared in the text.

Social science research aims to pay attention to particular attitudes, ideas and phenomena transmitted via mass media content, which can be accessed through content analysis. Klaus Krippendorff (2004), defined content analysis in terms of communication research and stated

that “content analysis is potentially the most important research technique in social sciences”. He further elaborated that content analysis seeks to analyze data within a certain circle while attributing themes to the text which is probably the purpose of social scientific communication research most of the time (Krippendorff, 2004:404).

Content analysis is defined as “systematic procedure of assigning categories to portions of text”. It is argued that qualitative content analysis is a way to preserve quantitative content analysis and to have a more descriptive text interpretation (Mayring, 2014:31). Content analysis can be used as qualitative as well as quantitative approach. In addition, deductive or inductive coding approaches can be pursued (Elo and Kyngäs, 2008:109). Qualitative content analysis is used deductively when the coding scheme is derived from already established information and operationalized knowledge (Kyngas and Vanhanen, 1999). In this thesis, qualitative content analysis was combined with quantitative elements. Frames have been retrieved deductively from previous literature. The qualitative data was collected by manually assigning passages of the editorials to these predefined frame categories in Excel, while quantitative data was collected by counting the frequency of different frames in the editorials to present the graphical illustrations.

5.1. Sampling

This research sampled content of an internationally recognized English newspaper namely: the New York Times. This newspaper is selected due to its international readership, extensive media market and international influence. The newspaper’s webpage was accessed to collect articles. In terms of genre, only editorials were considered for this study and 26 editorials were selected and analyzed to answer the research questions. The overall word count of the editorials from each of the three selected timelines falls into the range of 9,500 to 10,500. This range helps in generalizing the results while performing a comparison and makes this research reliable.

Editorials are a representation of how issues are framed while being free of the objective boundaries of journalism. Editorial writers may frame issues the same way an editor or reporter does but with more freedom (Ryan, 2001). Dijk believes that editorials does not only express opinions but they also shape the interpretations of the public as well as social and political elites. Suggestions expressed in editorials can influence certain policies through policy-makers.

It is well-known that editorials are used as a medium to express opinions but these opinions may also “attack, defend or give advice to the authorities” (Van Dijk, 2015:134).

Editorials can also be considered as a reflection of a newspaper’s policy which they are entitled to express but editorials must also present all sides of an issue even if it goes against newspaper’s policy (Ryan, 2004:378). Features of editorials include abstract arguments which are supposed to have possible rhetorical implications (Van Dijk, 1995:275). Editorials tend to highlight the key aspects of an issue by shedding light on important chunks of information which then help in exploring the broader perspective. They drives attention towards debatable issues while providing different perspectives. Therefore, editorials can be considered a relevant choice for this study in order to get an idea of what leading writers such as the journalistic elite consider debatable and what or how much of their organization’s policy allows them to express.

Editorials for the sample were selected with the following properties in mind:

- Specified search was applied in the search engine of website of New York Times to get the articles from specific date
- Only editorials were considered due to their assumed impact on government officials as well as due to mass reporting on coronavirus
- Only those editorials were considered which were published on selected dates for this research
- Only those editorials were selected which contained the keywords coronavirus, pandemic, epidemic, China, Wuhan and COVID-19
- Initially, a criteria of 600 or more words was considered to collect the sample for this research but after the archive search it was found that every editorial was exceeding the word limit of 600. Accordingly, every editorial published on the specific dates and meeting the above criteria was included in the sample

This thesis followed three specific time periods in order to efficiently analyze data requested by the research questions. The questions are answered by focusing on the time periods of 28th-30th January, 27th-28th February and 27th March. The reason of the first time period being chosen is that during this time period Wuhan was declared the hub of this disease while on 30th January, the World Health Organization (2020) announced coronavirus as a global health emergency. However, the peak of this disease was still in Wuhan. The second time period is chosen due to it being the time of increased cases outside China and commencement of travel

restrictions worldwide. By the third time period this disease had been identified all over the world with cases in almost every continent. On the 26th of March, United States surpassed China and Italy's total count of confirmed cases with 82,404 cases which was the highest in the world at that time (Secon, Woodward and Mosher, 2020). These defining moments may influence the overall reporting approach and that's why the sample for this thesis was based on three different stages of the crisis with respect to its spread. Clear interpretations were drawn for the sample through the category-driven measurement of selected frames. It was kept in mind that pre-understandings and dispositions can alter the results but data was coded and re-coded several times in order to keep this research reliable. While coding the text the frames were identified strictly through the definitions and sub-categorical explanations presented in the next sub-chapter of this study.

5.2. Operationalization

Following coding frames have been defined and developed through the literature presented in section 4.1 and 4.2.1 (See page 6, 7 and 10, 11). Previous literature has been used to understand the frames that have appeared and were studied in communication research. Frames are called constructive and negative on the basis of how they were studied in previous literature and what specific approach they seem to be inclined towards. These frames may represent specific as well as generic concepts in communication research but in this research these frames have been coded strictly according to their descriptions and indicators or sub-categories given as follows:

Frames	Descriptions	Indicators/sub-categories
<u>Constructive</u>		
Solution-oriented	Includes causes, response, implementation and limitation of the problem. It must convey an insightful lesson on the social problem under study	Response from governments, information on providing medical awareness, actions to combat COVID-19 etc
Future-oriented	Discussion on how a situation will unfold in the future and inclusion of what-now?	Description of what the present provides and the future may possibly look like with COVID-19
Public-oriented/ Empowerment	Should include common grounds and variety of perspectives to engage the public	Inclusion of subjects such as struggles of parents, students, immigrants and everyday hustle caused by COVID-19
Inclusiveness /Diversity	Should include perspectives/stories from all over the world. It should develop an argument against the polarization created by the media	Discussion on the struggles of minorities, ethnic communities and subjects of interests to different cultures

Mathematical	Should include statistics and proper context of the situation	Giving an overview with reference to the statistics such as providing data on economic situation as well as on the cases, recovered patients and deaths in case of COVID-19.
Co-creation	Should use the kind of language which reflects upon empowerment and engagement through highlighting the effort of the public	Using examples of public's actions to reflect upon their efforts and appreciate their achievements during the crisis
Concern	Expression of concern for unaffected areas and people who are likely to be heavily impacted by the crisis as well as its international spread	It simply refers to the expression of concern for affected party as well as an unaffected party considered at risk
Solidarity	Showing empathy for the parties involved and using language that makes the party being attributed to looking strong, speaking in a party's defenses and suggesting possible recovery rather than entirely focusing on the damage (Mackie, Devos and Smith, 2000; Collins, 2004)	Mention of the efforts, struggles and successes of the party perceived to be the cause of crisis as an attempt of repairing the reputation
<u>Negative</u>		
Blame-attribution	Use of language or words that reflect the attribution of responsibility to a certain party	Holding responsible, Implying towards involvements etc
Conflict	Focusing on the conflict and arguments of different parties. Debating the opinions and different approaches of stakeholders	Includes discussing political arguments over the handling of the crisis
Consequences	Focusing on negative consequences that may generate anxiety rather than positive outcomes	Discussing economic, political, social and cultural impacts. Basically mentioning the damage caused by the crisis and its possible impact
Sensational Language	Use of sensational, exaggerating words and language structure	Sentences using exaggerating and fabricated words
Uncertainty	Use of language that reflects the uncertainty of the situation	Uncertainty with respect to how the situation will unfold and medical potential in case of COVID-19
Use of us and them	Using us and them for certain parties while discussing different approaches to crisis	Referring to a specific party as 'them' and posing as 'us' in order to discuss disagreements
Denial	Refusing to accept the intensity of crisis by downplaying it and suggesting that the crisis is getting more attention than it deserves	Denying the crisis, criticizing the reforms by holding the stance of COVID-19 being over-hyped

5.3. Coding Strategy

Coding has been done by only one coder who coded and recoded the texts to increase the reliability of the research. It also reduces the possibility of text being coded and interpreted differently. Coding has been divided into two groups (See appendix). The first group contains technical data including the headlines, word count, author and publication date. The second group includes the categorization of text which was done on the basis of constructive and negative frames. Constructive frames are identified with the help of Hermans and Gyldensted (2019)'s listed theme while negative frames are extracted from previous research and defined in the process of analyzing the data. In this thesis specifically focused constructive themes/frames are solution frames, future orientation, inclusiveness and diversity, empowering people, mathematical, concern, solidarity and co-creation. Identified negative frames are blame attribution, conflict, consequences, sensational language, uncertainty, denial and use of us and them.

Each paragraph was attributed a frame and one frame was counted only one time per paragraph. If there were more than one frames per paragraph then each frame was coded individually. For example, if 'blame' and 'conflict' were identified in the same paragraph then they were coded distinctly. If same frame was mentioned more than once in a paragraph then it was coded as one. For example, if 'mathematical frame' was identified three times in the same paragraph, then it was coded only one time for that specific paragraph. Headlines were coded separately with lead being part of the headline if reflecting the same frame.

Previous research shows that only 24 percent of studies used propositional units such as a sentence, phrase or paragraph as a unit of analysis (Matthes, 2009:355). While 63 percent studies used thematic units such as the whole article as a unit of analysis. This choice of unit for analysis makes this research come under 18 percent of those studies which were seen to be operationalizing more than 7 frames in their research (Elo and Kyngäs, 2008). Van Dijk & Kintsch (1983), points out that having smaller units of analysis helps identify the consistency of frame patterns or themes present in the text. That's why the unit of observation to identify the frames in this research is a, 'paragraph' which can be helpful in order to capture the relative appearance of frames in the editorials.

The following examples describe the coding strategy to understand how one paragraph can represent more than one frame and how the construction of text as well as the context was considered while coding:

Let me summarize the Trump administration/right-wing media view on the coronavirus: It's a hoax, or anyway no big deal. Besides, trying to do anything about it would destroy the economy. And it's China's fault, which is why we should call it the "Chinese virus" (Krugman, 2020a).

This paragraph has been coded under the frame of conflict and solidarity. This paragraph represents the satirical tone of the writer who is quoting the response of President Trump. The editor's way of narrating suggests that he does not agree with this way of attributing blame towards the Chinese government which reflects that he is in solidarity with China and does not approve of referring to the virus as "Chinese virus". Similarly, the same sentences also represent the controversial comments of a President which might stir a conflict resulting in racial confinement of a nation.

China's leaders sometimes seem 10 feet tall, presiding over a political and economic juggernaut that has founded universities at a rate of one a week and that recently used more cement in three years than the United States did in the entire 20th century (Kristof, 2020).

The paragraph mentioned above has been coded under the frame of sensational language and conflict. In this paragraph words like 'juggernaut' and calling china's leaders '10 feet tall' may feel like diplomatic but the headline for this article, which is, "Coronavirus Spreads, and the World Pays for China's Dictatorship" sets the tone of the article from the beginning hence affecting the interpretation of the text that follows. The following paragraph shows the use of sensational language and exaggerated wording to reflect on a political conflict.

Instead of having an adult conversation with the population about the virus and putting in place reasonable policies that have been used effectively elsewhere, the Chinese state has gone into full lockdown mode. This demonstrates one of those truisms from political science: Authoritarian governments are like people who don't have any fingers but do possess two thumbs. They can take forceful actions but can't fine-tune the levers of government (Johanson, 2020).

This paragraph has been coded under the frames of blame attribution and denial. Criticism of lockdown imposed by China suggests that the writer is implying that this crisis is not worth these actions. The first two lines reflect upon how reasonable policies haven't been implemented, hence the subsequent blame for not handling the crisis effectively goes to the Chinese government.

This qualitative information is in this research supplemented with quantitative illustration of data. Graphs were used to illustrate the difference or similarity between the editorials covering the COVID-19 crisis in the three distinctive time periods. The overall framing approach is demonstrated through a pie chart and the appearance of frames across time periods is demonstrated through a bar graph. The frame of 'blame attribution' and 'solidarity' were specifically illustrated through a bar graph to show how much blame was being attributed to china for the outbreak as compared to solidarity for the initial damage in Wuhan. Similarly, the frame of denial towards the crisis and expression of concern for its spread is illustrated through a bar graph.

5.4. Delimitations

This research analyzed 26 editorials published on the crisis of COVID-19 by New York Times. Three different time periods were analyzed to identify constructive and negative frames. This research explores the frames used in crisis communication during COVID-19 but does not make any generalizations due to the small sample size. Qualitative content analysis was used to be able to look into the descriptions of frames identified. So that the context, structure, and tone of the text are also considered while analyzing results. This research design was adopted due to content analysis' direct access to meaning transported in texts. The strength of this approach is that it supports existing theory while allowing it to extend (Hsieh and Shannon, 2005:1283). This research extends the existing literature on framing in case of health crisis especially COVID-19 and makes use of constructive journalism as a positive framing tool in media.

6. Results and Analysis

The following sections focus on analyzing the results according to each research question separately. Each section contains a description of the qualitative content analysis as well as graphical illustrations to better understand the results.

6.1. Overall Framing Orientation of New York Time’s editorials

This section focuses on the overall framing orientation of the COVID-19 coverage in editorials published by New York Times. It discusses the prominent trends identified in the sample. This section also elaborates on the comparison of how the editorial coverage differed over time. It discusses the level of constructive and negative frames for each time frame separately in order to understand how frames change or develop with different intensity levels of a crisis.

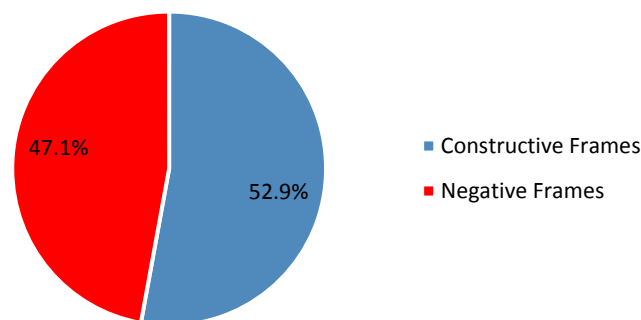


Figure 1. Coverage Orientation in the 26 selected editorials of the New York Times (n=382 frame codings)

Figure 1 bases on all coded frames (n=382 codings) in the 26 editorials covering COVID-19 and provides with an interpretation about the overall editorial coverage orientation of the New York Times regarding this topic. Results indicate a balanced approach with quite some weight on constructiveness. It is noticeable that the headlines which fall under the categories of ‘solution-oriented’ and, ‘future-oriented’ frames mostly have a high number of constructive frames. For example, headlines like, “We Can Safely Restart the Economy in June. Here’s how” (Emanuel, 2020) and “Is the World Ready for the Coronavirus?” (Editorial Board, 2020) reflect that these articles will answer the questions of how to avoid the virus and return to normal life.

On the other hand the headlines with negative frames such as ‘sensational-language’, ‘conflict’ and ‘blame attribution’ contain a high frequency of negative frames. For example, the headlines

like “Beware the Pandemic Panic” (Manjoo, 2020) and “Coronavirus Spreads and the World Pays for China’s Dictatorship” (Kristof, 2020) reflect the panic and anxiety caused by the virus as well as suggest whom to blame for it. This finding resonates with the study of Bonyadi and Samuel (2013), who concluded that editorial headlines provide insight into the subjective approach of the article. In this research, the headlines of editorials were rather informal reflecting the slang expressions used. This approach of headlines might make it easier to reach out to the audience and be relevant but it also suggests that “the headline writers perceive to be the norms for the respective readership” (Shie, 2010:94).

Editorial coverage can be considered balanced in terms of the frequency of appearance for frames. The overall orientation of the sample is constructive but the difference between the percentage of the constructive and negative frame is small. Even though the overall orientation of the editorials turn out to be slightly more constructive than negative, the constructive frames were harder to identify than the negative frames. A text in which a negative approach was dominant was clearly negative and made the suggestions on whom to blame, why to panic, and what to expect. The language used to express these opinions was slanging and informal with opinions put forward rather more sternly. While on the other hand articles with a positive approach seemed to be written in a way that the reader must make some effort in order to identify constructive frames. Overall, the individual articles were not very constructive in terms of how many aspects of constructive journalism they possessed. I think the phrase should be formulated differently; along these lines: While analyzing the articles individually, it was noticeable that they did not include a variety of subjects and themes/frames, but rather focused on two or three constructive frames (see appendix).

6.2. Editorial coverage across time periods

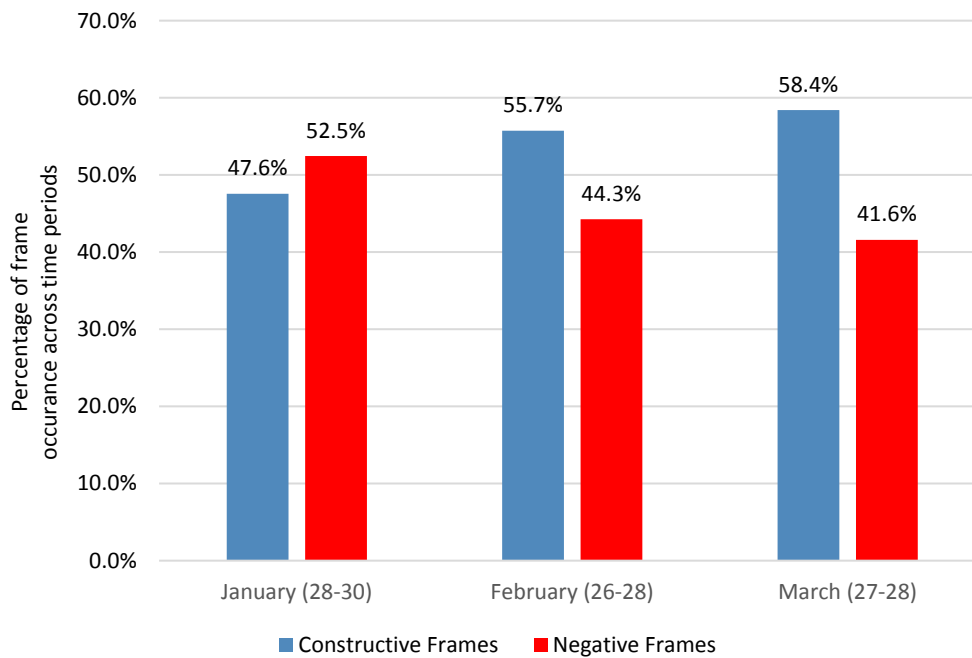


Figure 2. Frequency of Frame Occurrence

It's interesting to see that editorials from New York Times covered a broad range of issues in terms of the global impact of COVID-19. For example, in January (28th-30th), editorials were focusing on the political consequences, understanding of the pandemic itself and discussing the panic induced by the pandemic. In February and March, the articles mostly discussed the global perspective, assumptions regarding the future and the uncertainty revolving around the medical potential of institutions. While analyzing the data it was easy to differentiate the articles in January from those published in other months. Editorials from February (26th-28th) and March (27th-28th) were somewhat similar in terms of construction and appearance of frames.

The reason might lie in the timeline of this whole crisis. On 23rd January the first case of COVID-19 was reported in the US outside China and on 30th January it was called a global emergency by W.H.O. While in February and March the numbers just kept going up and worldwide quarantine paralyzed the economy and daily life (Penna and Stephens, 2020). Which changed the situation from expecting a global crisis to experiencing it.

In January, negative frames appeared more than constructive frames while this doesn't seem to be the case in February and March. Constructive frames are considerably higher in February and March as compared to January. It was noticed during the analysis that the editorials

published in January were mostly on the issues of the panic induced by coronavirus and the concern for its spread. Headlines such as “Coronavirus and panic epidemic” (Johanson, 2020) and “When a Pandemic Meets a Personality Cult” (Krugman, 2020b) reflect the frames of blame attribution and use of sensational language. While in February and March, the editorials are focused on the themes like solution, current situation and what future holds in regards to travel and person-to-person interaction. For example, headlines like “To protect global health, people have to work with China” and “it’s too late to avoid disaster but there are still things we can do” reflect the frames of solidarity, solution-oriented and future-orientation. The analysis showed that the editorials from January seem to have a different approach towards the pandemic as compared to other editorials. Below follow some examples of how it differs across time periods.

In January, COVID-19 is mostly perceived as a disease that should not be given too much attention and should not be panicked about. Editorials seem to imply that governments are taking extreme unnecessary measures. For example, the following text represents the frame of denial, while the writer compares the attention attributed to COVID-19 in comparison to Influenza:

Influenza kills more Americans every year than any other virus, Dr. Peter Hotez, a professor at Baylor College of Medicine, told Liz Sabo at Kaiser Health News. But the flu is rarely paid such attention, and fewer than half of adults get a vaccine (Bokat-Lindell, 2020).

But in February and March, it is seen editorials are discussing how some countries and politicians are not taking it as seriously as they should. The response towards climate change has been seen to be a major crisis used to construct a comparison. For example, while comparing COVID-19 to the climate crisis one editorial discusses the approach of president Trump satirically as:

Does all this give you a sense of déjà vu? It should. After all, it’s very similar to the Trump/right-wing line on climate change. Here’s what Trump tweeted back in 2012: “The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing noncompetitive.” It’s all there: it’s a hoax, doing anything about it will destroy the economy, and let’s blame China (Krugman, 2020a).

Ryan (2004:373) states that most editorial writers tend to use historical foundations in order to establish their frames. COVID-19 was also heavily discussed in comparison to historical pandemics such as Influenza and most of these mentions of historical pandemics reflected the frame of denial. For example, while comparing influenza with coronavirus one article states, “Coronavirus will be a blip on the horizon in comparison” (Bokat-Lindell, 2020). The use of historical examples to assume, negate or justify the actions of authorities is seen to be a consistent trend in the sample. Other than influenza, COVID-19 has been discussed in comparison to Ebola, AIDS and SARS. For example:

I fear that the conditions are ripe for a situation similar to what occurred in the summer of 2014, when an outbreak of Ebola overran West Africa. After the Obama administration scrambled to bring home two American health workers who had become infected with the disease in Liberia, Trump went on a month’s long Twitter tirade about Ebola (Manjoo, 2020).

6.3. Frame appearance throughout the text

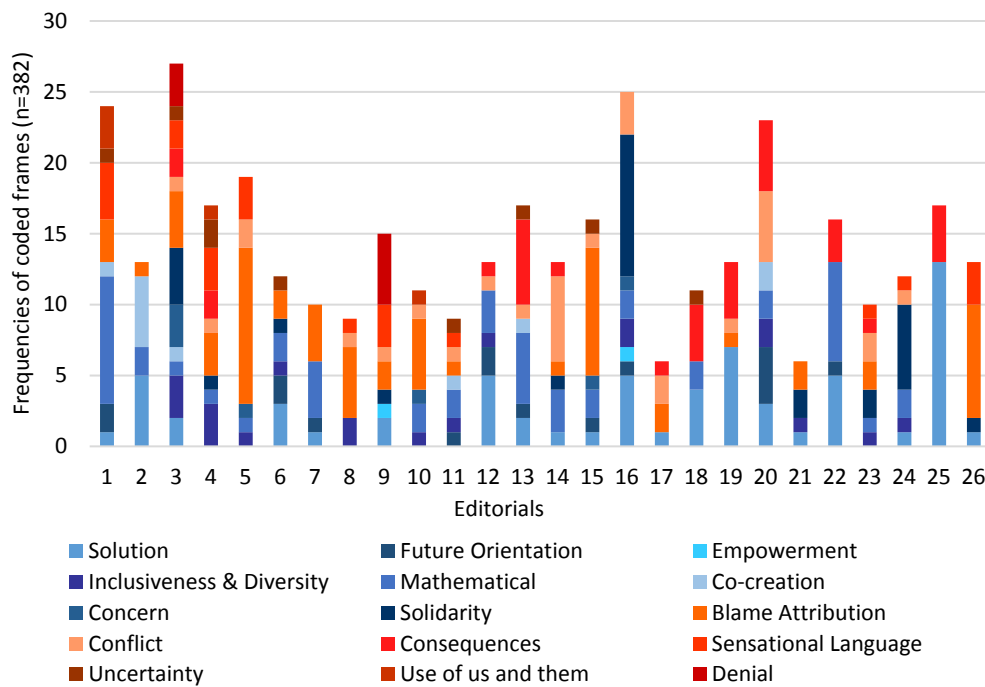


Figure 3. Frame appearance throughout the text in each of the sampled editorials

Figure 3 illustrates the presence of frames in each editorial individually which shows that there is an uneven representation of frames throughout the texts with some frames being more dominant than others. It also hints towards some articles being more constructive frames oriented while others showing a dominant representation of negative frames. The analysis revealed that on average each article contained 2 to 7 frames. The analysis also revealed that most prominent frames in text were the ones of blame attribution and solution-oriented frame. The frequency of negative frames appears to be balanced while some of the constructive frames are very low in frequency which highlights the ignored aspects such as the frames of empowerment and expression of concern. The evidence from this study implies that editorials did a good job in providing information and suggesting solutions but constructive journalism is not only about informing and presenting the solution. It should also empower the audience and expressing concern towards the well-being of public on the individual level rather than only focusing on the economical hurdles and solutions (From and Nørgaard Kristensen, 2018:718).

However in the text, the frame of empowerment was seen to be the frame with lowest frequency. Frames of ‘co-creation’ and ‘inclusiveness’ were the hardest to identify in the text. Co-creation was identified through the structure and meaning conveyed and most importantly how much the text has the ability to relate to the audience.

For example, the following text was coded under the co-creation frame:

But, oh, that those habits persisted. The best first-line defenses against SARS or the new coronavirus or most any virus at all are the ones that Grandma and common sense taught us, after all (Rosenthal, 2020a).

Inclusiveness and diversity was used in terms of previous epidemics and the representation of minority struggles. For example:

The Ebola outbreak perpetuated images of the ‘Dark Continent’ and exacerbated existing patterns of xenophobia toward black communities,” he writes, also noting how Haitians in the United States were barred from donating blood in the 1980s after being unfairly labeled a risk group for AIDS (Bokat-Lindell, 2020).

6.4. Constructive Frames

This section focuses on prominent constructive frames and their frequency as compared to other identified frames.

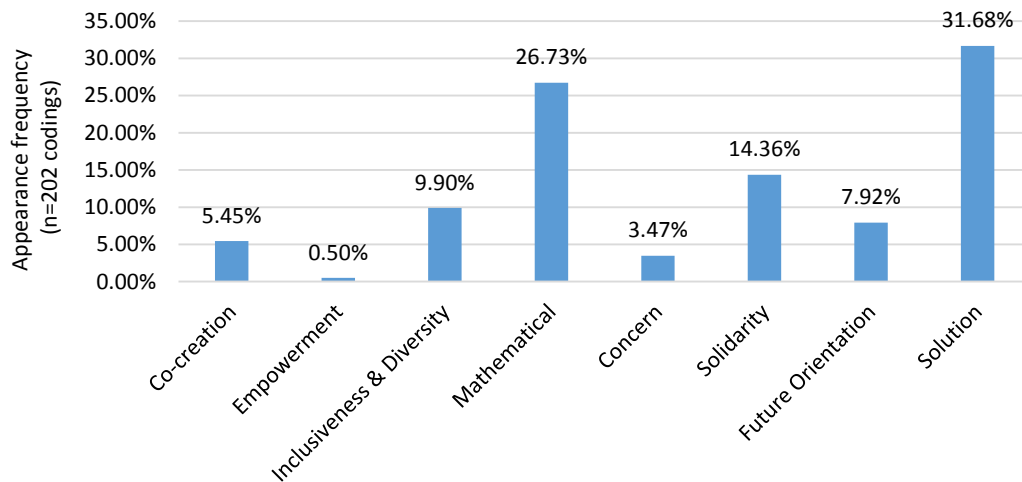


Figure 3. Frequency of Constructive Frame Occurrence

The results showed that the most common frames identified are ‘solution-oriented’ and ‘mathematical’ while the least common tends to be ‘empowerment’. It’s interesting to notice that this trend appears to be followed during all three time periods. The solution-oriented frame seems to be appearing more in the later stage of reporting while the mathematical frame appears less than before. The reason might be the detailed reporting on statistics of coronavirus worldwide. Statistics are mentioned to provide context on the emergence of coronavirus in the initial reporting. For example:

Plagues are not only part of our culture; they are caused by it. The Black Death spread into Europe in the mid-14th century with the growth of trade along the Silk Road. New strains of influenza have emerged from livestock farming. Ebola, SARS, MERS and now Covid-19 have been linked to wildlife. Pandemics usually begin as viruses in animals that jump to people when we make contact with them (Daszak, 2020).

While at the later stage, statistics seem to be used for comparing COVID-19 with a previous health crisis such as Influenza and Ebola. For example:

As the number of nCoV-2019 cases has increased, and the death toll along with it, one metric, the case fatality rate, has remained rather steady so far: at about or below 3 percent. As of Tuesday, less than three out of 100 confirmed cases had died. That's relatively good luck — worse than for most strains of influenza, better than for SARS (Quammen, 2020).

The articles reflect a good balance of constructive frames during the initial editorial coverage but in the later stage, a few frames appear to be dominating than others. For example, solution-oriented frame is dominant throughout the text. It is the second most discussed frame throughout the sample. It appears that in January, solutions are more confined around the subject of how an individual might avoid getting sick and the texts focus on spreading awareness on the disinformation surrounding this pandemic. For example:

But outdoors, infections don't spread well through the air. Those photos of people walking down streets in China wearing masks are dramatic but uninformed. And remember if a mask has, perchance, intercepted viruses that would have otherwise ended up in your body, then the mask is contaminated. So, in theory, to be protected maybe you should use a new one for each outing (Rosenthal, 2020a).

While in the later stage of reporting, solutions are discussed on a broader horizon and the texts revolve around how to avoid economy shutdowns and unemployment. One of the texts especially focused on how to increase the potential of health systems.

A radical shift is also needed in the way that tests, vaccines and drugs are designed so that entire groups of pathogens are targeted instead of individual pathogens that are already known. The National Institute of Allergy and Infectious Diseases in the United States is working on a universal flu vaccine that would cover all known strains of influenza; a universal coronavirus vaccine, an Ebola-virus vaccine and others will also be needed (Daszak, 2020).

In January, major themes discussed under the solution-oriented frame can be located at the individual level. For example, phrases like “wash your hands” and “Don't go to the office when you are sick. Don't send your kids to school or day care when they are ill, either” (Rosenthal, 2020a).

In February, solutions are completely focused on economic impacts in affected countries and measures to save their health systems from overflowing. For example:

The most important work the government can do to limit economic damage is to marshal an effective public health response. The agency with the greatest influence over short-term economic developments is not the Fed, but the Centers for Disease Control and Prevention (Appelbaum, 2020).

In March, attention is shifted towards the questions like what measures government should take, how to increase the testing of virus and what exceptions are justified in order to stop the virus. For example, “Get tough now. Test widely to isolate those infected, and slowly revive businesses with workers and customers who have developed immunity” (Emanuel, 2020). This shift in attention is understandable and depends on the ongoing circumstances and intensity of the crisis.

It’s interesting to note that throughout the texts, frames change their ways of expression and affiliation with subjects. These changing patterns seem to be directly related to the occurrence of events and change in the intensity of the crisis. It might also be due to factors such as attention, loss and benefit, organizational collapse and overall development of the crisis. The reasons of such shifts can be related to several factors, such as the initial priority of spreading awareness, learning from the mistakes of other countries, preparing for possible outcomes, increased concern for a national meltdown, shortage of resources and overcrowding of the health institutions. Overall, there was not one exclusively negative or exclusively constructive article. All articles contained both negative and constructive frames (see figure 3 under section 6.3).

6.5. Negative Frames

This section focuses on negative frames and investigates which frames are more prominent than others.

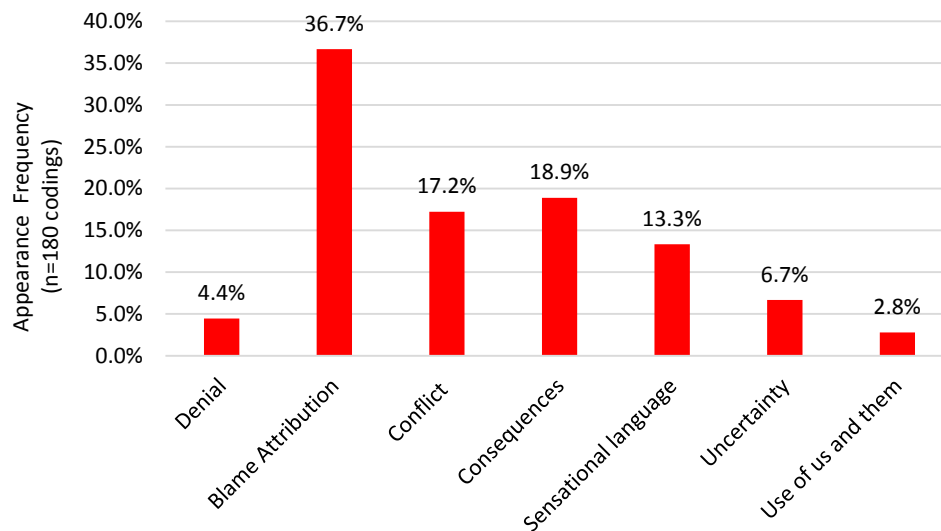


Figure 4. Frequency of Negative Frame Occurrence

The most common negative frames identified in the articles are the frames of blame attribution, conflict and consequences. The frame of conflict appears to be the dominant frame over the course of time while the frame ‘consequences’ seems to be increasing in frequency. It appears to be the highest during March. The reason might be the high death rate across the world as well as the number of countries being under lockdown. Thus, long term planning and consequences of what this situation might cause to the world economy are discussed. The frame of conflict is mostly identified more in the articles which have a political approach and discuss Trump administration’s outlook on COVID-19. For example:

So, here’s the response of the Trump team and its allies to the coronavirus, at least so far: It’s actually good for America. Also, it’s a hoax perpetrated by the news media and the Democrats. Besides, it’s no big deal, and people should buy stocks. Anyway, we’ll get it all under control under the leadership of a man who doesn’t believe in science (Krugman, 2020b).

The articles discussing medical aspects tended to not mention the political and social implications of the crisis. On the other hand, articles focusing on economic impact were not discussing the health nor the social implications. For instance, the results find out that articles

discussing the political factors were the one where the frame of conflict was emerged most frequently. This result resonates with T. J. Shih, Wijaya and Brossard (2008:157), who concluded that the frame of conflict was prominent when the issue was more political. Nisbet and Hoge (2006) also seem to agree with this finding and suggest in their research that conflict becomes a prominent frame when an issue moves from an administrative sphere to a political one.

The use of “us” and “them” has been the lowest appearing negative frame but in terms of different time periods, it was highest in January as compared to the reporting in later months. It was mentioned mostly in terms of comparing the actions taken by different parties and arguing over different understandings of the crisis. The following paragraph is an example of the frame appearance with reference to the context in the text. In this specific paragraph ‘they’ has been used to refer to the Chinese government while ‘we’ has been used to refer to the U.S. For example:

“They couldn’t have any sound public health advice”. We should keep this sense of caution in mind in case American politicians begin pushing for travel bans, overbroad quarantines or other measures that might not be supported by the science (Manjoo, 2020)

The frame of uncertainty has been more or less the same in all three time periods reflecting the confusion and stigma around COVID-19. For example:

We don’t really know how many people have Coronavirus. In an era when we get flash-flood warnings on phones, why is data on the new coronavirus so limited (Rosenthal, 2020b).

The frame of uncertainty was coded if the language used made the situation look uncertain as well as out of hand, thus reflecting the confusion around how and when the crisis will be controlled. For example:

This good luck may not last. Nobody knows where the pinball will go. Four days from today, the number of cases may be in the tens of thousands. Six months from today, Wuhan pneumonia may be receding into memory. Or not (Quammen, 2020).

Another interesting trend was identified regarding ‘denial’ which is discussed under the next heading while comparing it with the frame of concern.

6.6. Concern versus Denial

This section discusses the third question focusing on the comparison of frames such as blame attribution versus solidarity and denial versus concern.

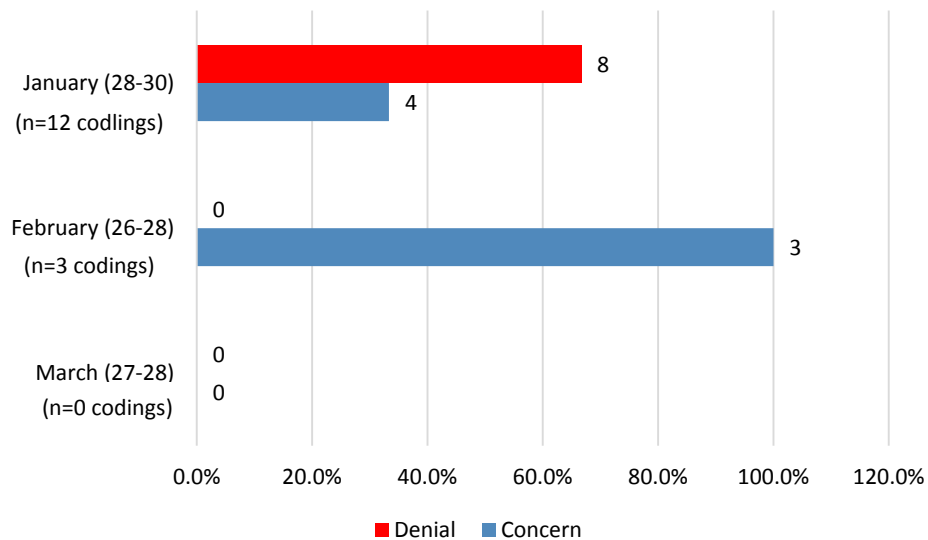


Figure 5. Frequency Comparison

The frame of ‘concern’ seems to be increasing from January to February and completely take over the frame of denial in February. It’s highest in February, considerably lower in January and does not appear in the texts from March. The reason might be that until 30th January only 82 cases were reported in 18 countries outside China, while the majority of the cases were still inside China. This increase in cases inside China posed a great threat to the outside world hence increasing the concern worldwide (World Health Organization, 2020). But in February and March COVID-19 had already spread widely Europe. The frame of concern seems to discuss how much one should worry about the immediate risk of spread in Europe For example:

Lest Americans feel that it could never happen here, Dr. Lipkin points out that it took many months for health officials in the United States to acknowledge and recognize H.I.V. as a new virus, despite the fact that gay men were turning up at alarming rates with unusual pneumonias and skin cancers (Rosenthal, 2020b).

Denial seems to be the highest in January and mostly expresses the frustration over the extreme measures taken by the Chinese government. The same frame does not appear in February or March but writers do talk about how some political figures were completely denying the possibility of a global pandemic a few weeks ago. It's interesting to see this shift from denying the crisis to criticizing those who denied it. Previous research suggests that denial is mostly used as a response strategy to avoid the blame (Van der Meer, 2014:538). Which is understandable through the analysis of this research because denial mostly appeared where the structure and tone of the text suggested blame or attribution of responsibility towards a party resulting in automatically shifted blame.

For example:

Considering the underlying distrust, it's hard for the government to say what many epidemiologists are saying: This outbreak is serious but not catastrophic. Because if the state leveled with the people, it would also have to admit that there is no need for this degree of social control. Some 259 people were reported to have died as of Saturday evening, in a country of nearly 1.4 billion, and there is no indication that we are at the start of a Hollywood disaster-style movie (Johanson, 2020).

This paragraph mentions the actions taken by the Chinese government as extreme but it's also implying that the government is exaggerating the crisis which puts the blame of incompetent response on the government.

Denial was mostly identified in discussions related to the possibility of COVID-19 being different than previous health crisis like Influenza and Ebola. Most writers seem to compare COVID-19 with influenza while calling it just a flue which will be long gone before the summer starts. This frame appeared mostly when COVID-19 was compared with other global crises. For example: "The flu is rarely paid such attention, and fewer than half of adults get a vaccine" (Bokat-Lindell, 2020). Another observation made regarding to denial was that statistics is a prominent theme when comparing COVID-19 to previous crises. Statistics are used to debate over the possibility of COVID-19 being a bigger crisis than the previous health crises. For example, the following paragraph implies that flu has a higher mortality rate than COVID-19 and thus is more dangerous and should be given more attention.

For perspective: The flu kills roughly 35,000 Americans every year. This season, it has already sickened an estimated 15 million Americans and killed 8,200, according to C.D.C. estimates (Bokat-Lindell, 2020).

6.7. Blame Attribution versus Solidarity

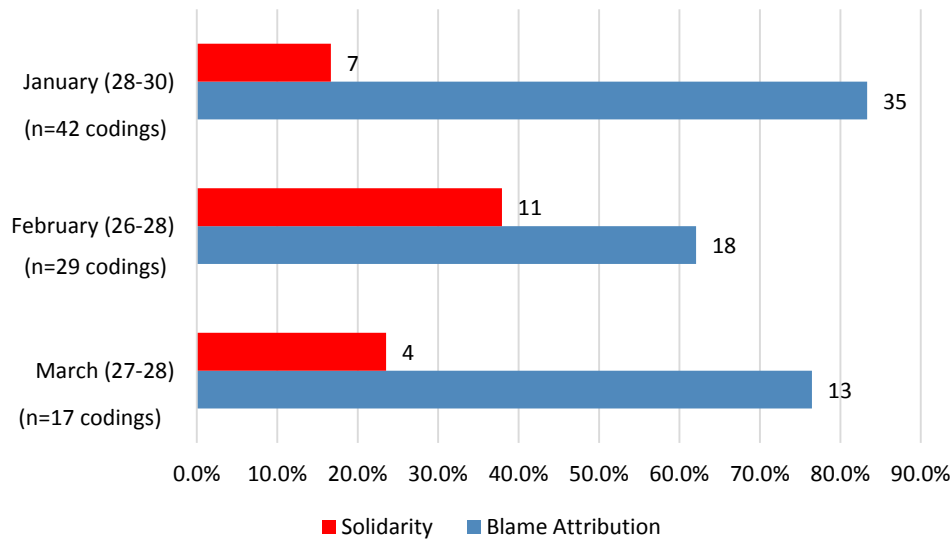


Figure 6. Frequency Comparison across time periods

The solidarity frame appeared less often than the blame attribution frame. It appeared constantly throughout the timeline selected for this thesis. Most of the time it was mentioned in relation to the death rate in China. It was also identified in text discussing Trump’s choice of words regarding COVID-19. A satirical tone has been adopted in order to convey the distraught over Trump’s choice of words such as ‘Chinese virus’. For example:

President Trump and some of his allies have made a point of calling the coronavirus a “Chinese virus,” the “Wuhan virus” or, simply, a “foreign virus.” Senator Tom Cotton of Arkansas even suggested the Chinese had devised the virus as a biological weapon. They would like us to believe that the disease is like a foreign invasion, an alien attack on the people of the United States (Buruma, 2020).

Solidarity is expressed to criticize the blame-game approach and to promote the idea of being united in this crisis. A descriptive approach has been used in order to make the audience understand the consequences of blaming a certain ethnicity. Results showed that solidarity was

mostly present where negative responses of the U.S. government towards China were quoted. For example:

This is why it is important to pull together rather than look on passively, much less mock or play the blame game. Viruses do not respect borders, and China has been fighting hard at the front line. To support China now, with concrete actions, is also to protect global public health and promote the world's stability and prosperity (Feng, 2020).

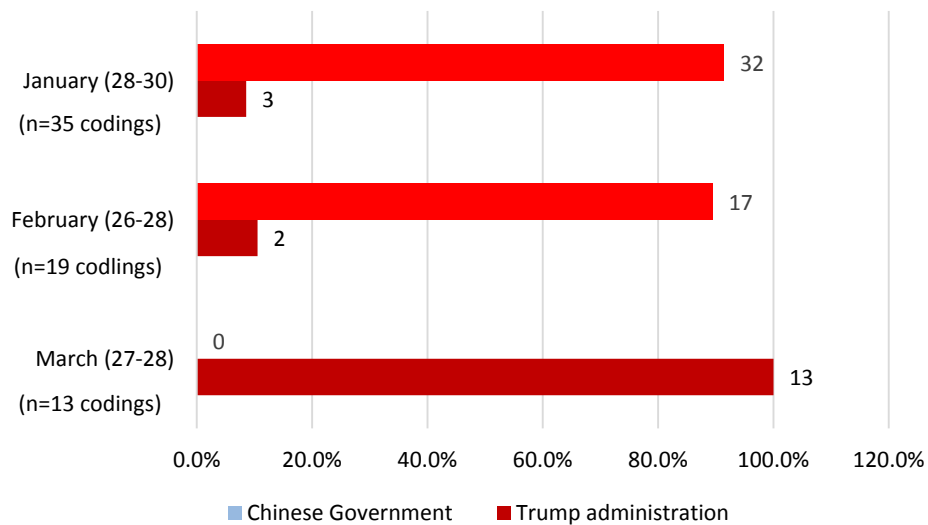


Figure 7. Blame Attribution towards Chinese Government and Trump Administration

As figure 7 above illustrates, blame attribution has been the most frequent negative frame throughout the sample. The frame appeared most often in January but maintained a high frequency in February and March. Blame attribution is mostly directed towards the Chinese Government and the Trump administration. In January, more blame is attributed towards China and it is mentioned often that China did not inform WHO in time and tried to conceal the truth on the initial stage of COVID-19. For example:

In recent days the W.H.O. has complained that China has not been sharing data on infections in health care workers. Earlier this month, the editors of the journal Nature called on researchers to “ensure that their work on this outbreak is shared rapidly and openly” (Rosenthal, 2020b).

It's mentioned on more than one account that China could have acted more decisively and timely. China's strict censorship rules and poor control over hygiene conditions in food markets

are also criticized. Overall data analysis shows that the Chinese government was blamed approximately 1.5 times more than for poor decision making than the Trump administration.

On the other hand in February and March, the blame attribution seemed to shift towards Trump for not being efficient enough and truthful about the situation in the United States. What's interesting is that the tone of the text blaming Trump is more negative than the texts blaming the Chinese government. There is a lot of play with informal words and idioms while attributing the blame towards Trump. It can be said that the approach was diplomatic for the Chinese government and straightforward for the Trump administration.

For example:

The bottom line is that as with so many things Trump, the awfulness of the man in the White House isn't the whole story behind terrible policy. Yes, he's ignorant, incompetent, vindictive and utterly lacking in empathy. But his failures on pandemic policy owe as much to the nature of the movement he serves as they do to his personal inadequacies (Krugman, 2020a).

The Chinese government is blamed more through satirical choice of words and more implicit than directly through the attribution of responsibility. It can be said that a strategic approach has been used when blaming the Chinese government. For example, in the following paragraph the writer implies that there has been a cover-up rather than directly stating that the Chinese government covered this crisis:

This startling fact is now leaking out in online reports that are sometimes, but not always, being blocked. At some point, the government will have to admit to a partial cover-up (Johanson, 2020).

In the 1980s, newspapers publicized medical theories that conceptualized the plague or pandemics as a result of the "Chinese-culture". This blame attribution suggests that the said communities are agents of dangerous diseases (Barde, 2003). In the case of the SARS epidemic of 2003, research shows that the Chinese system was heavily criticized and blamed for the crisis (Buus and Olsson, 2006:72). These studies resonate with another interesting observation made in this research which suggests that while blaming the US government the reasons were related to economic efficiency, medical health system and incompetency of the government. On the other hand the Chinese government was blamed in terms of world connectivity and

increased human activity on earth. For example, “In short, China’s increasingly outward-facing stance has greatly expanded the environment within which the Wuhan coronavirus can propagate” (Werb, 2020).

There was higher amount of blame attribution towards China but in March the blame completely shifts towards the Trump administration. Blame attribution was analyzed with respect to SSCT and it was differentiated through the identification of three clusters namely a victim cluster, an accidental cluster and a preventable. The data showed that the blame attribution towards the Trump administration is lower than towards the Chinese government but falls under the preventable cluster. The texts showing elements of responsibility attribution generally conveyed the idea that the Trump administration could have prevented a part of the losses the U.S. is expecting in terms of COVID-19. Most of the blame towards China, however, is expressed in terms that fit the victim and accidental cluster. It was a common idea in the texts reflecting these frames that this pandemic is the result of an accident or human error. The victim cluster was dominant in the texts in which a neutral stance was taken, for example, in the text developing an argument over how China has been irresponsible along with criticizing Trump’s approach towards calling it a ‘Chinese virus’. It’s interesting to note that words like ‘President Trump’ and ‘Trump administration’ are used while blaming the U.S. for the crisis within the preventable cluster. On the other hand, when blaming China, labels like the ‘Chinese government’ are used. This finding resonates with previous research which suggests that in the ‘preventable cluster’ the party blamed is mostly represented by the leader of that party so that the organization itself can be relieved from any responsibility (An and Gower, 2009:112)

7. Discussion & Conclusion

This chapter discusses each research question separately. The research questions are answered with the help of data analysis and discussed by supplementing previous research and theories used in this research.

Media can serve as a medium of change especially when it comes to professional behaviors and shaping the way the public sees a specific issue. The information that is not highlighted in news might be as important as those that are, and the impact on public’s understanding might be even greater when pieces of information are excluded or included to support or undermine a cause (Ryan, 2004:365). Media not only influences the public interpretation but also presses policymakers to take a stance on what they are being influenced with. Research shows that

policymakers are more likely to attribute importance to certain issues due to being highly attentive towards media coverage on a conflict. This response towards a situation can be due to the frames and symbolic elements present in news coverage (Colby and Cook, 1991). That's why it's important to study these aspects of news media which might be hidden in plain sight but end up being important change agents for the public.

This study aimed to examine the editorial coverage of the New York Times on the COVID-19 crisis. Editorials were used as a sample and the analysis specifically focused on three different time periods in January (28th-30th), February (26th-28th) and March (27th-28th) of 2020. The analysis aimed to explore construction, appearance, comparisons and changes or development of constructive and negative frames. Qualitative content analysis with quantitative elements was used to answer the following questions:

- What is the overall framing orientation of editorial coverage by New York Times on the subject of COVID-19 crisis?

The first research question investigated the overall approach or orientation of the editorial coverage on COVID-19 and the results discussed in the analysis chapter conclude that the overall editorial coverage on COVID-19 was constructive. The analysis revealed that the discussion on the political, economic and medical crisis increased considerably with changing situations in the crisis from January to March. On the other hand, scientific debate and discussions of health care and virus prevention on an institutional level seemed to decrease across this timeline. This finding contradicts with research of the Pan and Meng (2016), which concluded that political aspects, health risk and prevention were mostly discussed in the initial phase of the crisis while post-crisis discussions were mostly focused on the medical and scientific themes (Pan and Meng, 2016).

In terms of comprehensiveness, the editorials covered a wide range of information on the future impact of COVID-19 but the focus was mainly on either economic consequences or health care capacity. This is in its own a broad range but seems to neglect the audience on the individual level. The editorials seem to ignore the struggles of their audience with respect to how COVID-19 has been affecting several different groups in terms of employment, mental health, parenting and especially the struggles of people being stuck in one place due to quarantine. The aspect of "digital education" has also been avoided in the texts. Students have been mentioned only once in the entire text corpus and only as an example of how they were screened at the schools

during the SARS outbreak in Beijing. That is only one example of how the texts did not include a variety of perspectives and guidelines for students in terms of their struggle and ways of coping with new norms of digital education. Another major neglected group was the essential workers and their safety which is an important aspect during COVID-19 pertaining to higher exposure risk. The lack of these topics limits the relevance of editorials for the general readership. The editorials seem to be largely aimed at audiences interested in the global perspective of economic development during COVID-19. According to a report news websites are the second most commonly used source for the age group of 18-29. This means that 27 percent of young adults are turning towards online news media to stay informed (Shearer, 2020). For this share of young readers, the editorial coverage is most likely not very relevant. Overall, the analysis suggests that the writers did not try to connect with their audience on a level other than the global perspective. The coverage even though regarded as constructive lacked representation of variety, diversity and inclusion of different perspectives regarding the impact of COVID-19.

- What are the prominent constructive and negative frames in the editorial coverage of COVID-19?

Overall the structure and tone of the editorials suggested that most of the texts had a balanced approach while including different aspects of the issue under study. But some of the articles were completely focused on a few frames such as conflict, blame attribution and solutions.

The most prominent constructive frames were ‘solution-oriented’ and ‘mathematical’. Solution-orientation was identified in the coverage if the cause, solution and/or response to the problem were addressed. It was seen that solutions were suggested more on a global level than on an individual. The audience was only addressed in guidance on how to avoid the virus. Solutions on an individual level could have been more in-depth considering what a common person is going through on a daily basis: The struggle of parents who are still working but their children are supposed to stay at home or the struggle of the health care workers to protect their families from the heightened risk, etc. It can be argued that the sample size for this study may not represent all the themes covered in editorial reporting. But even for this sample size, editorials did not include enough text on the struggles and experiences of their audience and lacked versatility.

The most prominent negative frames identified were blame attribution, consequences and conflict. It should be noted that blame attribution tends to be the most prominent frame when

considering frames as units of analysis rather than the text as a unit of analysis. This finding resonates with research conducted by Blakely (2003b), who argued that the New York Times focused on the attribution of blame extensively while reporting on the influenza pandemic of 1918, 1957 and 1968. Hallahan (1999), also considered the attribution of responsibility an important frame and argued that it's common for individuals to attribute blame for health problems in America.

The editorials focusing on the frame of conflict were mostly discussing the conflicting strategies practiced and political tensions between governments. Dotson *et al.* (2012:75), regarded conflict as the dominant article foci in the coverage on the climate change crisis. He further clarified that the framing of climate change has been fueled through a high appearance of the frame of conflict in the newspaper coverage. Other researchers focused on the level of attributed blame against the level of responsibility and found that blame and responsibility are positively correlated (Cho and Gower, 2006). This resonates with the finding of this research that conflict, political aspects and blame appeared constantly in relation to each other in the text. The frame of consequences was mostly discussed in terms of economic pressure and the collapse of health care institutions. This finding is supported by the definition of the frame given by Dotson *et al.* (2012) who suggested that the frame of consequences has mostly appeared when the issue at hand is feared to cause consequences related to economy, business and health care.

- How do the editorials transport the solidarity frame in comparison to the frame of blame attribution, and the denial frame in comparison to the concern frame?

While comparing the frames of solidarity and blame attribution it was seen that solidarity was mostly expressed through the concern of ethnic racism and the consequences Chinese may have to face in the aftermath of Covid-19. The Chinese government and the Trump administration were two parties that were blamed for this crisis and the things that followed. Overall blame was attributed more towards the Chinese government but in March it was totally directed towards President Trump. Although the language used for blame attribution differs a bit for these two parties, the reasons for blaming were the same such as the lack of timely decisions and irresponsibility with respect to the spread of this virus. Blame attribution was mostly discussed while mentioning the denial surrounding the coronavirus. Research on the coverage of SARS shows the same findings suggesting that Chinese government and the US were

blamed but the majority of the blame belonged to China (Luther and Zhou, 2005:864). Overall blame attribution towards the Chinese government is seen to decrease a little bit in February while completely diminishing in March. This seems to contradict a study suggesting that the blame attribution for SARS towards the Chinese government increased over time (Beaudoin, 2007:521). But in the case of the COVID-19 crisis the blame shifted due to President Trump's controversial comments in briefings related to coronavirus not to forget the infamous response of President Trump when he claimed that everything is under control stirring controversy on social media.

One study highlights an interesting point that the blame attribution is high due to the tension between the Chinese government and authorities on how to manage and define the parameters of a "crisis". The reasons might lie in how the Chinese government treated SARS with secrecy, covered up the crisis and left the global health authorities in a passive position (Buus and Olsson, 2006:74). This finding resonates with the accusations in the texts which implied that the Chinese government tried to cover-up the appearance of coronavirus at the early stages. Another study analyzing the media coverage of SARS in newspapers of the UK also suggested that international crises are often associated with power struggles and might be highly influenced by the relationships of governments (Wallis and Nerlich, 2005:2638). Another possible reason can be the temptation to have a party accountable for the crisis. Reynolds and Seeger (2005) suggested that the media industry as well as the public seem to be looking for a party to assign the blame to after the crisis. They argue that it becomes more important for media to discuss and initiate a debate over accountability which often results in assigning blame to governments. Another study seems to resonate with this finding and states that the frequency of blame attribution and responsibility suggests that these frames are used as scapegoating in order for the public to relate to and make sense of the crisis (Buus and Olsson, 2006; Mayor *et al.*, 2013).

The Chinese government was mostly blamed when the editorials consider the incident as an accident (accidental cluster) while the Trump administration was blamed in a tone that suggests that the crisis could have been prevented (preventable cluster). Which makes sense when looking at the text corpus in general. It is mentioned in more than one account that China has been creating a perfect environment for the rare accidental spread of diseases, while President Trump has been highly criticized for not handling the crisis very well and for not being able to prevent further chaos.

While analyzing concern and denial it was seen that denial was only present in January and it was higher than concern but in February and March it did not appear at all. This verifies the results because, in February and March, it was becoming obvious that this crisis is a potential pandemic. Overall denial was more prominent in the sample than concern. Research shows that denial has been a dominant frame in health crisis communication, and has been used in conflicting ways such as denying the issue as well as highlighting the denial of the issue. For example, in research on the framing of AIDS in China, the results showed that the frame denial was mentioned mostly while questioning the credibility of the Chinese government in terms of how they denied this issue (Wu, 2006:258).

The frame of concern was mentioned in terms of the spread of the virus as well as its potential to be a global level catastrophe. Jerit *et al.* (2019:7) made an interesting assumption that newspapers publish stories on public concern of the public according to their anticipation. In the case of the Zika virus, newspapers devoted significant space to the stories published on the concern to get more attention from the public. In the case of Ebola, researchers found out that the concern was mostly directed towards the lifespan of the virus and its transmission (Lazard *et al.*, 2015:1110). Results also showed that the overall appearance of this frame was not of much value in terms of frequency. This finding resonates with a study by Gerlach (2016:625), which states that concern was not a major frame of reference in the English-language press on Ebola.

- How has the framing of the editorial coverage on COVID-19 developed during January, February and March 2020?

The editorial coverage from January was more distinctive than the one in February and March and seemed to be high in negative frames, mostly due to “blame attributions”. On the other hand, constructive frames were dominant in both February and March, predominantly in the form of the “solution-oriented” and “mathematical” frames. The results suggested that the coverage of January was slightly different from the rest of the sample. But it was observed that patterns of framing changed throughout the texts with COVID-19 being still in a developmental state.

Most editorials were focused on figuring out how the situation will develop in the coming weeks and if the panic of coronavirus is justified. Statistics related to previous health crises such as Ebola, Influenza, and AIDS were also mentioned multiple times. In February, and March the editorials discussed a broad range of aspects that were or will be influenced by

COVID-19 on the global level such as economic fallout of business etc. In January, the whole text corpus discussed whom to blame and why we should care so much about the coronavirus, the rest of the sampled text attributed blame and criticized the denial by governments. This finding resonates with previous research suggesting that the initial reporting of the influenza pandemic mostly represented the confusion and fear attached to this crisis while it considerably decreased in the later stage of reporting (Liu and Kim, 2011:241). The frames changed their appearances significantly throughout the months under investigation, which seems to be in line with the study of Gitlin (1979), who suggested that news frames change and develop over time.

With respect to constructive frames, the reporting showed more basic level solutions in January with expressions that the threat the coronavirus poses will soon be over. While in February and March the reporting suggests solutions on the national-level and discusses the economic threats in more detail. Overall the difference between the reporting in February and March was not very clear due to the same aspects under discussion but it was easier to distinguish the editorials in these two phases from the ones published in January. As previous research suggests, the reason might lie in different levels of crisis. Studies showed that during Influenza, communication strategies changed with changing phases in the pandemic (Reynolds and Quinn Crouse, 2008:15). Based on this argument it seems reasonable that the editorial coverage differs across time periods in terms of frame appearance and focus on different aspects of the crisis.

In a nutshell, this study was conducted in the initial stages of COVID-19 and is significant because it analyzed how COVID-19 was commented-upon journalistically while a lot of uncertainty still revolved around this novel disease. The findings of this study suggest that the editorial coverage of COVID-19 was more constructive than negative and represented an array of frames with blame attribution, solution-orientation, consequences, conflict and, the mathematical frame being most dominant. The analysis illustrated the nature of the frames that appeared in the texts as well as their change over time. It developed into the relative nature of some frames concluding that blame attribution was dominant over the frame of solidarity and denial was dominant over the frame of concern. It also suggests that the appearance of frames may change over time due to different strategical communication requirements with changing levels of a pandemic crisis. Overall, this study aims to offer insight into the framing of COVID-19 by the New York Times with the hope of providing directions for future studies in the field of constructive journalism, framing and crisis communication.

8. Limitations and Future Research

This study provides insights into the editorial coverage of COVID-19 in the New York Times but does not attempt to make any generalizations due to the small sample size. It can be interesting to conduct further research by using another methodological approach and a bigger sample size. One possibility could be the comparison of coverage taken from different newspapers to generalize the findings. Future research should also explore the journalist's perception and understanding of frames. More can be discovered regarding the way journalists perceive and practice these frames in their everyday work with respect to the impact of journalistic environment. Besides, it seems important to study the stigma created by news media since we must consider that interpretations of pandemics are culturally constructed. Further research can also explore editorial framing comparatively, for instance by comparing the coverage in response to coronavirus with the coverage on climate change.

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10. Appendix

10.1. Data used in analysis

Following is a list of articles retrieved from 28th January to 30th January

Unit	Headline	Published Date	Size (words)	Author	Newspaper
1.	No, Team Trump, the Coronavirus Isn't Good for America	30-01-2020	903	Paul Krugman	New York Times
2.	Coronavirus and the Panic Epidemic	30-01-2020	1441	Ian Johnson	New York Times
3.	To Understand the Wuhan Coronavirus, Look to the Epidemic Triangle	30-01-2020	1272	Dan Werb	New York Times
4.	Is the World Ready for the Coronavirus?	29-01-2020	864	The Editorial Board	New York Times
5.	Coronavirus Spreads, and the World Pays for China's Dictatorship	29-01-2020	864	Nicholas Kristof	New York Times
6.	Beware the Pandemic Panic	29-01-2020	1125	Farhad Manjoo	New York Times
7.	We Made the Coronavirus Epidemic	28-01-2020	1511	David Quammen	New York Times
8.	How to Avoid the Coronavirus? Wash Your Hands	28-01-2020	1134	Elisabeth Rosenthal	New York Times
9.	Should You Be Worried About the Coronavirus?	28-01-2020	1367	Spencer Bokart-Lindell	New York Times

Following is a list of articles retrieved from 26th February to 28th February

Unit	Headline	Published Date	Size (words)	Author	Newspaper
1.	The Fed Can't Save Us From the Coronavirus	28-02-2020	818	Binyamin Appelbaum	New York Times
2.	Trump and the Virus	28-02-2020	619	David Leonhardt	New York Times
3.	To Protect Global Health, Work With China	28-02-2020	1372	Xie Feng	New York Times

4.	We Don't Really Know How Many People Have Coronavirus	28-02-2020	1207	Elisabeth Rosenthal	New York Times
5.	When a Pandemic Meets a Personality Cult	27-02-2020	895	Paul Krugman	New York Times
6.	How Bad Will the Coronavirus Outbreak Get?	27-02-2020	1241	Spencer Bokot-Lindell	New York Times
7.	We Knew Disease X Was Coming. It's Here Now	27-02-2020	1096	Peter Daszak	New York Times
8.	Admit It: You Don't Know What Will Happen Next	26-02-2020	1074	Farhad Manjoo	New York Times
9.	Japan Can't Handle the Coronavirus. Can It Host the Olympics?	26-02-2020	1413	Koichi Nakano	New York Times

Following is a list of articles retrieved from 27th-28th March

Unit	Headlines	Published Date	Word Count	Author	Newspaper
1.	It's Too Late to Avoid Disaster, but There Are Still Things We Can Do	27-03-2020	1088	Michael T. Osterholm, Mark Olshaker	New York Times
2.	What the Coronavirus Means for Climate Change	27-03-2020	2696	Meehan Crist	New York Times
3.	Trump Chooses Disaster as His Re-Election Strategy	27-03-2020	816	Charlie Warzel	New York Times
4.	What India Needs to Fight the Virus	27-03-2020	1093	Ramanan Laxminarayanan	New York Times
5.	A Silent Spring Is Saying Something	28-03-2020	1439	Roger Cohen	New York Times
6.	We Can Safely Restart the Economy in June. Here's How.	28-03-2020	1255	Ezekiel J. Emanuel	New York Times
7.	Virus as Metaphor	28-03-2020	1011	Ian Buruma	New York Times
8.	Covid-19 Brings Out All the Usual Zombies	28-03-2020	883	Paul Krugman	New York Times

Following table consists the number of paragraphs in which constructive frames appeared

Constructive Frame	January (28-30)	February (26-28)	March (27-28)	Total
Solution-oriented	14	19	31	64
Future-oriented	5	6	5	16

Empowerment	1	1	0	2
Inclusiveness and Diversity	10	5	5	20
Mathematical	20	21	12	53
Co-creation	7	2	2	11
Solidarity	7	11	11	29
Concern	4	3	0	7

Following table consists the number of paragraphs in which negative frames appeared

Negative Frame	January (28-30)	February (26-28)	March (27-28)	Total
Blame Attribution	35	18	13	66
Conflict	6	16	9	31
Consequences	4	13	17	34
Sensational Language	16	2	5	24
Uncertainty	5	4	3	12
Us and Them	4	1	0	5
Denial	8	0	0	8

10.2. Coding Strategy

Following is the example of two articles which represent the coding strategy:

- Words and phrases indicating the presence of Negative frames such as **Blame attribution**, **consequences**, **use of us and them**, **denial**, **conflict**, **uncertainty** and **sensational language**
- Words and phrases indicating the presence of Constructive frames such as **solution-oriented**, **future-oriented**, **solidarity**, **co-creation**, **diversity**, **concern**, **empowerment** and **Mathematical**

Code	Segment
Negative\Blame attribution	We Made the Coronavirus Epidemic. It may have started with a bat in a cave, but human activity set it loose.
Constructive\Mathematical and Sensational Language	The latest scary new virus that has captured the world’s horrified attention, caused a lockdown of 56 million people in China, disrupted travel plans around the globe and sparked a run on medical masks from Wuhan, Hubei Province, to Bryan, Texas, is known provisionally as “nCoV-2019.” It’s a clunky moniker for a lurid threat.
Constructive\Mathematical	The name, picked by the team of Chinese scientists who isolated and identified the virus, is short for “novel coronavirus of 2019.” It

	reflects the fact that the virus was first recognized to have infected humans late last year — in a seafood and live-animal market in Wuhan — and that it belongs to the coronavirus family, a notorious group. The SARS epidemic of 2002-3, which infected 8,098 people worldwide, killing 774 of them, was caused by a coronavirus, and so was the MERS outbreak that began on the Arabian Peninsula in 2012 and still lingers (2,494 people infected and 858 deaths as of November).
Negative/Sensational Language	The fast spread of nCoV-2019 — more than 4,500 confirmed cases, including at least 106 deaths, as of Tuesday morning, and the figures will have risen by the time you read this
Constructive\ Mathematical	It is startling but not unforeseeable. That the virus emerged from a nonhuman animal, probably a bat, and possibly after passing through another creature, may seem spooky, yet it is utterly unsurprising to scientists who study these things.
Constructive\ Mathematical	One such scientist is Zheng-Li Shi, of the Wuhan Institute of Virology, a senior author of the draft paper (not yet peer reviewed and so far available only in preprint) that gave nCoV-2019 its identity and name. It was Ms. Shi and her collaborators who, back in 2005, showed that the SARS pathogen was a bat virus that had spilled over into people. Ms. Shi and colleagues have been tracing coronaviruses in bats since then, warning that some of them are uniquely suited to cause human pandemics.
Constructive\ Mathematical	In a 2017 paper, they set out how, after nearly five years of collecting fecal samples from bats in the Yunnan cave, they had found coronaviruses in multiple individuals of four different species of bats, including one called the intermediate horseshoe bat, because of the half-oval flap of skin protruding like a saucer around its nostrils. The genome of that virus, Ms. Shi and her colleagues have now announced, is 96 percent identical to the Wuhan virus that has recently been found in humans. And those two constitute a pair distinct from all other known coronaviruses, including the one that causes SARS
Negative/Sensational Language	I say “possibly” because so far, not only do we not know how dangerous it is, we can’t know. They mutate often while they replicate, and can evolve as quickly as a nightmare ghoul.
Constructive\ Mathematical	Peter Daszak, the president of Eco Health Alliance, a private research organization based in New York that focuses on the connections between human and wildlife health, is one of Ms. Shi’s longtime partners. “We’ve been raising the flag on these viruses for 15 years,” he told me on Friday with calm frustration. “Ever since SARS.” He was a co-author of the 2005 bats-and-SARS study, and again of the 2017 paper about the multiple SARS-like coronaviruses in the Yunnan cave.
Constructive\ Co-creation	Mr. Daszak told me that, during that second study, the field team took blood samples from a couple of thousand Yunnanese people, about

	400 of whom lived near the cave. Roughly 3 percent of them carried antibodies against SARS-related coronaviruses.
Constructive\Future oriented	It's part of a sequence of related contingencies that stretches back into the past and will stretch forward into the future, as long as current circumstances persist.
Constructive\ Mathematical	Current circumstances include a perilous trade in wildlife for food, with supply chains stretching through Asia, Africa and to a lesser extent, the United States and elsewhere. That trade has now been outlawed in China, on a temporary basis; but it was outlawed also during SARS, then allowed to resume — with bats, civets, porcupines, turtles, bamboo rats, many kinds of birds and other animals piled together in markets such as the one in Wuhan.
Constructive\ Mathematical	Current circumstances also include 7.6 billion hungry humans: some of them impoverished and desperate for protein; some affluent and wasteful and empowered to travel every which way by airplane. These factors are unprecedented on planet Earth: We know from the fossil record, by absence of evidence, that no large-bodied animal has ever been nearly as abundant as humans are now, let alone so effective at arrogating resources. And one consequence of that abundance, that power, and the consequent ecological disturbances is increasing viral exchanges — first from animal to human, then from human to human, sometimes on a pandemic scale.
Negative\ Use of Us and Them	We invade tropical forests and other wild landscapes, which harbor so many species of animals and plants — and within those creatures, so many unknown viruses. We cut the trees; we kill the animals or cage them and send them to markets. We disrupt ecosystems, and we shake viruses loose from their natural hosts. When that happens, they need a new host. Often, we are it.
Negative/Sensational Language	Now we have nCoV-2019, the latest thump on the drum.
Negative\ Blame attribution	Current circumstances also include bureaucrats who lie and conceal bad news, and elected officials who brag to the crowd about cutting forests to create jobs in the timber industry and agriculture or about cutting budgets for public health and research. The distance from Wuhan or the Amazon to Paris, Toronto or Washington is short for some viruses, measured in hours, given how well they can ride within airplane passengers.
Negative/Sensational Language	And if you think funding pandemic preparedness is expensive, wait until you see the final cost of nCoV-2019.
Constructive\ Solution-oriented	Fortunately, current circumstances also include brilliant, dedicated scientists and outbreak-response medical people — such as many at the Wuhan Institute of Virology, Eco Health Alliance, the United States Centers for Disease Control and Prevention (C.D.C.), the Chinese C.D.C. and numerous other institutions. These are the people who go into bat caves, swamps and high-security containment laboratories, often risking their lives, to bring out bat feces and blood

	and other precious evidence to study genomic sequences and answer the key questions.
Constructive\ Mathematical	As the number of nCoV-2019 cases has increased, and the death toll along with it, one metric, the case fatality rate, has remained rather steady so far: at about or below 3 percent. As of Tuesday, less than three out of 100 confirmed cases had died. That's relatively good luck — worse than for most strains of influenza, better than for SARS.
Negative\ Uncertainty	This good luck may not last. Nobody knows where the pinball will go. Four days from today, the number of cases may be in the tens of thousands. Six months from today, Wuhan pneumonia may be receding into memory. Or not.
Constructive\ Future-oriented	We are faced with two mortal challenges, in the short term and the long term. Short term: We must do everything we can, with intelligence, calm and a full commitment of resources, to contain and extinguish this nCoV-2019 outbreak before it becomes, as it could, a devastating global pandemic. Long term: We must remember, when the dust settles, that nCoV-2019 was not a novel event or a misfortune that befell us
Negative\ Blame attribution	It was — it is — part of a pattern of choices that we humans are making.

Code	Segment
Constructive\ Solidarity	To Protect Global Health, Work With China
Constructive\ Solidarity and Mathematical	China is making headway in the battle against the Covid-19 epidemic. The daily number of new confirmed cases is declining nationwide, including in Wuhan, the epicenter of the outbreak, and other cities in the province of Hubei. Suspected infections are being diagnosed more quickly. As of Thursday, out of about 78,800 confirmed cases, some 2,780 people had died and more than 36,000 had recovered.
Constructive\ Solidarity	Treating the people's lives and health as a top priority, President Xi Jinping and the central government have acted decisively. More than 42,000 medical workers from across China rushed to Hubei. Comprehensive measures have been taken at the community level to track the health situation of the people. These efforts speak volumes about the Chinese leadership and its ability to mobilize and carry through its decisions.
Constructive\ Solidarity	It takes time to understand a new infectious disease, and any responsible government confronting such a challenge should act with rigor, strictly on the basis of science and evidence. China detected the outbreak, isolated the virus, sequenced its genome and shared the information with the World Health Organization and other countries in record time.
Constructive\ Solution-oriented and Mathematical	It has explored multiple methods of diagnosis and treatment. Five drugs are undergoing clinical trials; animal testing has begun on potential vaccines. China has updated its national coronavirus

	diagnosis-and-treatment plan six times, refining it according to science and the facts.
Constructive\Solidarity	The Chinese government has kept the public informed with daily updates and has solicited the people's suggestions and complaints via the Internet and social media platforms. It has been highly responsive to public opinion, required officials to live up to their duties and continuously improved the nation's public health emergency response system.
Constructive\Solidarity	The lockdown of Wuhan was considered controversial at first, but it has proved to be sensible and effective. Bruce Aylward, who heads a special W.H.O. panel on the Covid-19 outbreak, said this week, after field investigations, that measures taken in the city had helped stem the spread of the virus.
Constructive\Solidarity	What people in Wuhan and throughout China have done has probably prevented many more cases from occurring, and it has bought the rest of the world more time to prepare. Chinese people, especially those in Wuhan, should be recognized for the role they have played.
Constructive\Solidarity	Unus pro omnibus, omnes pro uno: one for all, all for one. The Chinese people, with their perseverance and optimism, have readily sacrificed themselves and have faced this epidemic united as one, demonstrating the nation's unique spirit and solidarity.
Constructive\Future orientation	Life is now gradually returning to normal, and while it does, China remains committed to its economic and social development goals, to eradicating poverty and building a moderately prosperous society in all respects. The Chinese word for "crisis" is composed of two characters: "danger" and "opportunity." The epidemic will not dampen China's growth in the long run; instead, it will create new momentum.
Constructive\Mathematical	China, the world's second largest economy, is resilient. It boasts a vast market of nearly 1.4 billion consumers; a middle class 400 million-strong; a talent pool of more than 170 million people with higher education or professional skills; more than 100 million entities engaged in commercial activities; and a full-fledged industrial system. The economic fundamentals for long-term, high-quality growth are sound.
Constructive\Solution	China has ample tools to make macro policy adjustments. The Chinese government has introduced supportive fiscal and financial measures, including cuts on taxes and fees, and injections of liquidity in the stock market. The purpose of those measures is to cushion key regions, industries and businesses from any shortfalls in funding, manpower or raw materials in order to ensure their efficient economic performance and stabilize expectations on financial markets. The managing director of the International Monetary Fund, Kristalina Georgieva, has said that China's economy should be expected to "return to normal in the second quarter" of 2020 as "announced policies are implemented."

Constructive\ Mathematical	China is also a major engine for global growth, and protecting its supply chains means protecting international ones and sustaining growth worldwide. In the aftermath of the SARS epidemic in 2002-3, it was the committed and forward-looking foreign businesses that did not pivot away from China that then benefited the most from the economy's rebound. And today, in these difficult times, Qualcomm, for example, has stated that its business plans in China would not be deflected by the current epidemic.
Constructive\Solidarity	China is holding its ground not only for its own people but also for the rest of the world. We are deeply grateful to the governments and the people everywhere who have provided precious support and assistance. But the situation remains grave, and the number of cases is increasing in other countries and regions.
Constructive\Solidarity	This is why it is important to pull together rather than look on passively, much less mock or play the blame game. Viruses do not respect borders, and China has been fighting hard at the front line. To support China now, with concrete actions, is also to protect global public health and promote the world's stability and prosperity. China, for its part, is ready to share its experience with other affected countries, and lend a helping hand, especially to those with weaker public health systems.
Constructive\Solution	But to win the battle against this disease, one must respect facts and science, neither spread nor buy into rumors and avoid panic or fear-mongering. Countries need to maintain normal trade and people-to-people exchanges, in line with the authoritative guidelines and regulations of the W.H.O. They should abide by international human rights agreements and avoid any discrimination.
Constructive\Solidarity	Nonetheless, one hopes that after the Covid-19 epidemic passes into history, we can all remember this period not only for China's commitment and contribution to global public health, but also because the international community will have displayed solidarity through these tough times.