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THE ISRAEL NATIONAL INSTITUTE FOR HEALTH POLICY RESEARCH

Final Report

Section 2: English Abstract

Full title of research project

The media coverage of the coronavirus pandemic and its implications on the Israeli government policy

Investigators: full name and affiliations

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Key Words

International news coverage, covid, policy

Abstract

An abstract of up to **300 words** should include these headings: (1) Scientific Background (2) Objectives (3) Methodology (4) Findings (5) Conclusions (6) Policy Implications / recommendations

Recent studies link between the way crises are covered in the media and the policy-making processes. Following the global nature of the Covid crisis, this study uses framing, crisis communication and diffusion theories to examine the relationship between the Israeli coverage of foreign countries' response to the epidemic and how Israeli policymakers responded and introduced actual policies. The study examined how the Israeli media framed the policy measures in foreign countries, whether the press coverage influenced the discourse among policy makers, and the actual steps that Israel took.

We collected all news items related to Covid in Haaretz and Yedioth Ahronoth, two major newspapers in Israel. The study included semantic network analysis and content analysis.

Our findings show that policymakers did not promote their own framing and did not challenge the framing of the media due to the novelty of as Covid-crisis. It can be therefore argued that policymakers did not shape the media discourse in Israel during the Corona crisis. Understanding the dominant role of media in time of novel crises, policy makers can reduce media criticism on government policy, increase the amount of time available to for decision-making, and design policy with less dependency on the media.

6.07.2021

Section 3: Hebrew Abstract

כותרת מלאה של המחקר

הסיקור התקשורתי של משבר הקורונה והשפעתו על המדיניות בישראל

חוקרים: שם מלא ושיוך מוסדי

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מילות מפתח

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תקציר

תקציר שאורכו עד **200 מילים**, אשר יכלול כותרים אלה: (1) רקע (2) מטרות (3) שיטה (4) ממצאים עיקריים (5) מסקנות (6) המלצות / השלכות לקובעי המדיניות

מחקרים מצביעים על קשר בין אופן הסיקור של משברים לבין דרכי ההתמודדות של קובעי מדיניות. בעקבות אופיו הגלובלי של משבר הקורונה המחקר משתמש בתיאוריות של מסגור, תקשורת משברים ודיפוזיה בכדי לבחון את הקשר בין הסיקור הישראלי של התמודדות של מדינות זרות עם המגיפה והאופן שבו קובעי מדיניות בישראל התייחסו לנרטיב התקשורתי וקבעו מדיניות בפועל. המחקר בחן כיצד מסגרה התקשורת הישראלית את צעדי המדיניות במדינות זרות, והאם הסיקור העיתונאי השפיע על השיח בקרב קובעי המדיניות והצעדים שישראל נקטה בפועל.

ניתוח המסגור בוצע באמצעות איסוף כל הידיעות החדשותיות שפורסמו בנושא הקורונה בעיתונות הישראלית. המחקר כלל כריית מידע, ניתוח וניתוח סמנטי רשתי וניתוח תוכן. ממצאי המחקר מראים כי קובעי המדיניות לא קידמו מסגורים משלהם ולא ערערו על המסגור של התקשורת. משבר הקורונה היה משבר חדש ולא מוכר, ולכן קובעי המדיניות נשענו על מסגור המדיה של המדיניות במדינות אחרות ולא קידמו ארכיטיפים או צעדי מדיניות משלהם. ממצאי המחקר מסייעים להבין את הקשר בין השיח התקשורתי ותהליכי קביעת מדיניות, ובכך מאפשרים לצמצם ביקורת תקשורתית על מדיניות הממשלה, להגדיל את משך הזמן שעומד לרשות מקבלי החלטות בבואם לקבוע מדיניות, ולאפשר לקובעי מדיניות לאמץ גם מדיניות שלא סוקרה על ידי התקשורת.

Section 4: Executive Summary- Hebrew

1. הרקע המדעי

הסיקור החדשותי בעתות משבר, כמו לדוגמא בזמן התפרצות מגפות, משפיע על ההחלטות של קובעי המדיניות (Entman, 2004). בהתאם לעקרונות תיאוריות סדר היום והמסגור נושאים אשר סוקרו בהרחבה בתקשורת עלו לסדר היום הציבורי מה שהוביל להתערבות של קובעי מדיניות. אולם, יש לציין כי קובעי מדיניות אינם ניצבים חסרי אונים אל מול המסגור התקשורתי. מחקרים מצאו כי אנשי ממשל וקובעי מדיניות יכולים אף הם להשפיע על המסגור התקשורתי, בעיקר בעת משברים (למשל מלחמה או מיתון כלכלי).

ממשלות מוכנות יותר בהתמודדות מול משברי העבר, כאלו שהפתרון להם והמשאבים הדרושים ידועים מראש. לא כך במקרה של משבר חדש (novel crisis), אשר לא מוכר למנהיגים וקובעי מדיניות. במקרה של משבר חדש, לסיקור התקשורתי השפעה מכרעת על ניהול המשבר. מנהיגים וקובעי מדיניות לא ערוכים למסגר את הבעיה באמצעים המקובלים וקשה להם לקבוע מתי המשבר התחיל ומתי הוא יגמר. במצבי קיצון, מנהיגים וקובעי מדיניות אף לא יזהו מצב חדש כמשבר וימנעו במודע משימוש במושג זה כדי למנוע חרדה בקרב הציבור (Boin, Hart, Stern & Sundelius, 2013). התוצאה יכולה להיות שהתקשורת תהיה זו שתמסגר את המשבר החדש, ותשפיע על מדיניות הממשלה. המחקר הנוכחי בוחן את מידת ההסתמכות של התקשורת הישראלית על סיפורים ממדינות זרות, ואת הקשר בין המסגור התקשורתי לאופן שבו קובעי המדיניות מצדיקים את המדיניות שקבעו בישראל.

2. מטרת המחקר

מחקר זה הציב ארבע מטרות עיקריות: (1) מיפוי סדר היום התקשורתי, כלומר אילו צעדי מדיניות שנקטו מדינות זרות סוקרו בהרחבה בישראל (למשל לבישת מסיכה). (2) זיהוי המסגורים התקשורתיים, כלומר כיצד יצרה התקשורת הישראלית ארכיטיפים ומסגרה את הצעדים שנקטו מדינות אחרות (סיפורי הצלחה וכישלון)? (3) איתור העמדות שהביעו קובעי המדיניות בתקשורת הישראלית ביחס לצעדים שנקטו מדינות זרות, או עד כמה קובעי המדיניות בישראל אימצו את

השיח התקשורתי של ארכיטיפים חיוביים ושיליים. (4) הבנת הקשר בין הסיקור התקשורתי לבין המדיניות שאימצה ישראל בפועל, כלומר האם קובעי המדיניות בישראל אימצו מדיניות בריאות שסוקרה באור חיובי ושאומצה קודם לכן בקרב הארכיטיפים החיוביים. בהתאם לעקרונות הדיפוזיה נבדקה קדימות הזמנים בין הסיקור התקשורתי לעיצוב מדיניות הבריאות בישראל בפועל.

3. שיטות המחקר

ניתוח המסגור בתקשורת הישראלית בוצע על ידי איסוף הידיעות החדשותיות שפורסמו בנושא הקורונה במהלך 7 חודשים החל מתחילת המשבר בדצמבר 2019 ועד יוני 2020 בעיתונות בישראל. ניתוח הנתונים בוצע על ידי שילוב של שיטות אוטומטיות כמותניות וניתוח תוכן ידני. ניתוח סמנטי רשתי אפשר איתור צעדי המדיניות שסוקרו בהרחבה הן בישראל, זיהוי דפוסים ותבניות בשיח, כמו גם ביטויים שגורים בפי קובעי המדיניות בישראל. כמו כן, נותחו הדפוסים בהם התבטאו בתקשורת קובעי המדיניות בישראל בנוגע למדיניות בעולם ולמדיניות הנדרשת בישראל. לבסוף נערך ניתוח של צעדי המדיניות שנקטה ישראל בפועל בתחומים שונים (סגירת גבולות, תמריצים למרפאות ובתי החולים, תמריצים כלכליים לעסקים, פעולות במערכת החינוך, ועוד) משלב פריצת המגפה ועד שלב היציאה מהמשבר.

4. ממצאים

המחקר מצא כי הן בעיתון "ידיעות אחרונות" והן ב"הארץ" הסיקור של הקורונה התבסס על השוואת צעדי המדיניות בישראל לצעדי מדיניות של מדינות זרות. כמו כן, ניתוח התוכן העלה כי שני העיתונים נטו להשוות את ישראל לאותן מדינות זרות (כגון איטליה, ספרד, ארה"ב, דרום קוריאה), ולסקר אותן כסיפורי הצלחה, שעל ישראל לחקות (למשל דרום קוריאה) או כסיפורי כישלון מהם ישראל צריכה ללמוד (למשל איטליה). כמו כן, נמצא כי קובעי המדיניות בישראל (למשל ראש הממשלה, מנכ"ל משרד הבריאות) אימצו את הסיקור התקשורתי. בבואם להציג צעדי מדיניות חדשים (למשל סגר) השתמשו קובעי המדיניות בסיפורי ההצלחה והכישלון מהעיתונים. למשל, העלאת מספר בדיקות הקורונה היומי הוצג כחיקוי של הצעדים בדרום קוריאה.

5. מסקנות

ממחקר זה עולה כי בעת משבר בריאות עולמי, העיתונות מסקרת אירועים תוך השוואות בינ"ל וזיהוי של סיפורי הצלחה וכישלון. אלו נהפכים לארכיטיפים חיוביים, או מודלים לחיקוי, וארכיטיפים שליליים, או מודלים לגינוי. כמו כן, בעת משבר חדש ולא מוכר, כמו למשל מגפה גלובאלית, קובעי מדיניות מאמצים את הארכיטיפים הללו ככלי לשיווק של מדיניות הממשלה. המסקנות המרכזיות הן כי בעת משבר בריאותי, ידה של התקשורת על העליונה והיא יכולה לקבוע את השיח סביב המשבר, ולהציג צעדי מדיניות כחיוביים או שליליים. על קובעי המדיניות לזהות את הארכיטיפים של התקשורת ובמידת הצורך לערער עליהם או להציג ארכיטיפים חדשים, בעיקר במידה וקובעי מדיניות מעוניינים ליישם מדיניות שזכתה לסיקור שלילי בתקשורת.

6. השלכות למדיניות והמלצות למקבל החלטות

חשיבותו של מחקר זה נובע תחילה מכך שהוא בוחן משבר לא מוכר ואת יחסי הגומלין בין התקשורת לקובעי מדיניות בעת משבר שכזה. בנוסף, בשונה ממחקרים קודמים, מחקר זה מתמקד בתפקידה של התקשורת תוך שילוב בין תאוריות המסגור והדיפוזיה כדי לבחון כיצד סיקור תקשורתי משפיע על עולם המושגים של קובעי מדיניות וצעדי המדיניות שהם מאמצים בפועל. שיטות המחקר החדשניות, המשלבות ניתוח שיח אוטומטי באמצעות רשתות סמנטיות וניתוח תוכן מעמיק מאפשרות הבנה מלאה יותר של התהליך. לבסוף, חשיבותו של המחקר נעוצה בכך שהוא בוחן את סיקור המגיפה דרך שימוש בארכיטיפים או מסגורים של הצלחה וכישלון. ממצאי מחקר זה יכולים לסייע לקובעי מדיניות לעצב את השיח התקשורתי בעת משברים בריאותיים בעתיד על ידי זיהוי והבנת תפקידים של סיפורי הצלחה וכישלון. באופן זה ניתן (א) לצמצם ביקורת תקשורתית על מדיניות הבריאות, (ב) להגדיל את משך הזמן שעומד לרשות מקבלי החלטות בבואם לקבוע מדיניות בעת משבר, ו (ג) לאפשר לקובעי מדיניות לאמץ גם מדיניות שלא סוקרה על ידי התקשורת.

7. רשימת המקורות העיקריים (לא יותר מ-4)

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Section 5: Comprehensive scientific report – English

1. Scientific background

News coverage in times of crisis, such as during an outbreak of pandemics, influences policymakers' decisions (Entman, 1991; Edy & Meirick, 2007). This phenomenon, also known as the "CNN Effect", implies that media coverage can shape the priorities of foreign policy makers. In accordance with the principles of agenda setting and framing theories (McCombs, 2001, Weaver, 2007) issues that are extensively covered in the media influence the public's agenda and lead to the adaption of new policies. Some scholars argue that the Clinton administration's intervention in the war in Yugoslavia and the famine in Ethiopia were the result of media coverage (Gilboa, 2005; Livingston, 1997; Robinson, 1999).

It should be noted, however, that policymakers are not always helpless. Studies have found that government officials and policymakers can also influence media framing, especially during crises (e.g., war or economic recession). In 2004, Entman introduced the cascading activation model. According to this model, leaders and government institutions (e.g., the White House) can frame information that makes its way to politicians (e.g., members of Congress), the media, and from there spread to the general public. For instance, after the 9/11 terror attacks, President Bush stated that war had been declared on the United States and that the American people should prepare for a long struggle or a battle between good and evil. America media institutions adopted Bush's framing.

Studies in the field of crisis communication show that many national crises include elements of uncertainty as there is a need to make decisions in the absence of sufficient information and under time constraints (Boin, Hart, Stern & Sundelius, 2013; Cahill, 1996; Garrison, 2001). But national crises also differ from each other and are influenced by the identity and characteristics of the leader, the degree of cohesion of the government, the amount of resources available to the state, the impact of the crisis on other countries, the number of decision makers involved in crisis management, and a leader's willingness to rely on policymakers (Acuto, 2011; Allison & Zelikow, 1999; Diehl, Reifschneider & Hensel, 1996; Freedamn, 2014; Huth, 1998).

Governments are more prepared to deal with past crises, in which solutions and necessary resources are known in advance (e.g., military escalations, financial crises). New crises are unfamiliar to leaders and policymakers. In the event of a new crisis, media coverage has a crucial impact on crisis management. Leaders and policymakers are not prepared to frame the crisis by conventional means, and it is much harder for them to control media discourse. In extreme situations, leaders and policymakers will not even recognize a new situation as a crisis and will consciously refrain from using this term to prevent public anxiety (Boin, Hart, Stern & Sundelius, 2013). As a result, the media take a more dominant role in framing the new crisis, influencing government policy in line with the “CNN Effect”.

Framing theory is limited in predicting how the media will cover a novel crisis of international significance such as the Covid19 pandemic. To this end, our study relies also on the diffusion of innovation theory, which assumes that people tend to imitate each other and adopt new information, behavior, or technology. Whereas in recent years the diffusion theory focused mainly on the adoption of technology (e.g. adoption of smartphones in Africa) its origins lie in the fields of health (Coleman, Katz, & Menzel, 1957), agriculture (Rogers, 1962) and sociology (Hornik, 2010). According to this theory, a new idea or behavior is first adopted by the innovators and early adopters and then makes its way, through imitation, to the later adopters and skeptics. Diffusion theory also assumes that media plays a central role in the diffusion and the introduction of new phenomena and norms (Roman, 2004), while opinion leaders and policymakers influence society's decision to adopt new behaviors.

The present study proceeds from the premise that with the outbreak of the Covid19 pandemic, media coverage in Israel relied primarily on international comparisons which compared Israel's policy measures (e.g., social distancing) with those taken in other countries. This is because Covid19 was a global crisis and because during the initial stages of the pandemic, different nations adopted different policies. It is thus possible that throughout the pandemic, the Israeli media may have framed some countries as success stories (e.g., S. Korea) and others as failure (e.g., Italy). Soon, these countries became archetypes that Israel should emulate or avoid.

In addition, it was expected that Israeli policymakers would adopt these archetypes, echoing them in press releases, in order to justify policy measures. This is because Covid19 was a novel and unfamiliar crisis. In the absence of experience in dealing with a global pandemic, information on foreign countries flowed from the media to policymakers. Also, in the absence of familiar framing from similar crises in the past, policymakers adopted the media's framing, which may have focused on the successes and failures of other nations. This creates a process of diffusion, starting from the Israeli media, moving to policy makers, and finally to the adoption of actual policies.

We also assumed that the diffusion process led to a time-lag between media coverage and the adoption of policy measures in Israel. In other words, the journalists in Israel were the early adopters of the archetypes while policymakers adopted them later and relied on archetypes to introduce health measures (e.g., social distancing). Positive archetypes were used to justify new health measures, while negative archetypes were used to justify which measures Israel *would not* adopt (e.g., wearing masks). Our study aims to explore the relationship between media, policy makers and actual health policies introduced in Israel, and tracing the diffusion of stories from one actor to the next.

2. Research objectives

This study set out to achieve four main objectives: (1) Mapping the media agenda, i.e., which policy measures taken by foreign nations were extensively reviewed in Israel (e.g., wearing a mask). (2) Identifying the media frames, that is, how the Israeli media produced archetypes and framed measures taken by other countries as successes or failures? (3) Identifying the positions and views expressed by policy makers in the Israeli media in relation to the measures taken by foreign nations. With regard to diffusion theory, we examined whether Israeli policymakers adopted the media's discourse of positive and negative archetypes. (4) Understanding the connection between media coverage and actual policy measures taken in Israel. To this end we examined whether Israeli policymakers adopted policies that were framed as success stories (e.g., high numbers of Covid19 tests in S. Korea). In accordance with the principles of diffusion, the time

differences between media coverage and the actual adoption of health policy in Israel was examined.

In short, the study examined three main hypotheses: H1) The Israeli media covered the Covid19 pandemic by highlighting stories of success and failure in foreign nations, while in the processes creating positive (S. Korea) and negative (Spain) archetypes to which Israeli policies were compared. H2) Israeli policymakers adopted the media's frames. They justified policy measures by referring to positive and negative archetypes. H3) There was a time lag between the media's coverage and the adaption of policies in Israel (diffusion), i.e., media coverage led to the adoption or change in policies and not the other way around.

3. Methodology

Sample. The corpus of our study included all the news articles in the two leading Israeli newspapers, *Yedioth Ahronoth* and *Haaretz*, that were published during the first wave of the pandemic in Israel between 1 March 2020 and 31 May 2020 and mentioned the word "Corona" in Hebrew ("קורונה"). In total, we retrieved $N = 1,052$ items from the archives of *Yedioth Ahronoth* and $N = 3,234$ items from *Haaretz*.

Choosing relevant words. First, we generated a list of word frequencies, removing stop-words and irrelevant words (Segev, 2020). To determine the relevance of the words we manually inspected the context in which the words appeared in the text, making sure that each word conveyed a specific meaning. Thus, for example, the word "health" appeared 5,429 times, followed by the word "government" (4,010 times), "ministry" (3,637 times), "patients" (3,450 times), and "Israel" (3,222 times). We excluded the word "corona" as it was the search term to retrieve our data as well as newspaper generic words such as "headline" or "date" that are not part of the actual content.

Construction and analysis of semantic networks. Based on the chosen frequent words we constructed networks of word pairs appearing in the same sentence (47,839 sentences for *Yedioth Ahronoth* and 128,885 sentences for *Haaretz*). For each outlet we generated two different networks: one general network that contains all the words, and another country-specific network that contains only

words cooccurring in the same sentence together with country names. Following the semantic network analysis procedure (see Segev, 2020), we sparsify these networks by deleting less frequent links between word pairs (lower than 80 co-mentions in *Haaretz* and 25 co-mentions in *Yedioth Ahronoth*). This process yielded much clearer and readable networks for visualization and interpretation purposes. Finally, we calculated some important centrality measurements (including degree centrality and betweenness) and employed Louvain modularity (Blondel et al., 2008) to identify cluster of words. Based on previous studies (Segev, 2020) Louvain method, which measures the density of edges inside communities, is particularly useful to identify clusters of words that tend to appear together in the same sentence. The result section below focuses on the general and country specific networks in each outlet.

Testing H1 and H2: For the manual coding we sampled 405 newspaper articles published in the *Haaretz* newspaper between March and May of 2020 as well as 427 published in the *Yedioth Aharonot* newspaper during the same time period. In order to identify foreign nations frequently mentioned by both newspapers a codebook was constructed. The codebook listed the title of each newspaper article, its publication date, the foreign nations referred to, and mentioned policy measures such as social distancing, quarantines, personal hygiene and remote teaching.

In addition, the codebook included a thematic analysis. The thematic analysis followed the roadmap offered by Braun and Clarke (2004), who define thematic analysis as a way of identifying, analyzing, and reporting on patterns, or themes, within a given data corpus. In the first stage of analysis, two coders jointly analyzed 50 articles published in *Haaretz* and classified them into themes based on their issue. For instance, a large number of articles focused on education systems. Thus, a theme called “Teaching During Covid19” was created. Similarly, many articles focused on the financial ramifications of the pandemic. Thus, a theme titled “Fiscal Crisis” was created. Once all 50 articles were classified they were reviewed yet again to ensure the relevance of the themes. This led to the identification of additional themes such as Covid19’s impact on elections throughout the world and in Israel as well as a theme focusing on National Security. In total, nine themes

were detected. Finally, one coder classified all 832 news articles into issue related themes.

Next, two coders measured the sentiment of articles mentioning foreign nations so as to identify potential positive or negative archetypes. The sentiment analysis was conducted at the level of individual sentences. Each sentence, mentioning a foreign nation, was ranked on a scale ranging from 0 (positive) to neutral (1) or negative (2). Notably, the coders focused on six out of the ten most frequently mentioned nations detected in the previous stage. These included the 4 most frequently mentioned nations (i.e., China, Italy, Spain and the US). In order to broaden the sample, the analysis also included two frequently mentioned Asian countries (Japan and S. Korea). Inter-coder reliability was measured using a sample of 171 sentences (20% of the total). Kappa calculations yielded a value of 0.8, indicating a high inter-coder reliability. In total, 781 sentences mentioning foreign nations were ranked based on sentiment.

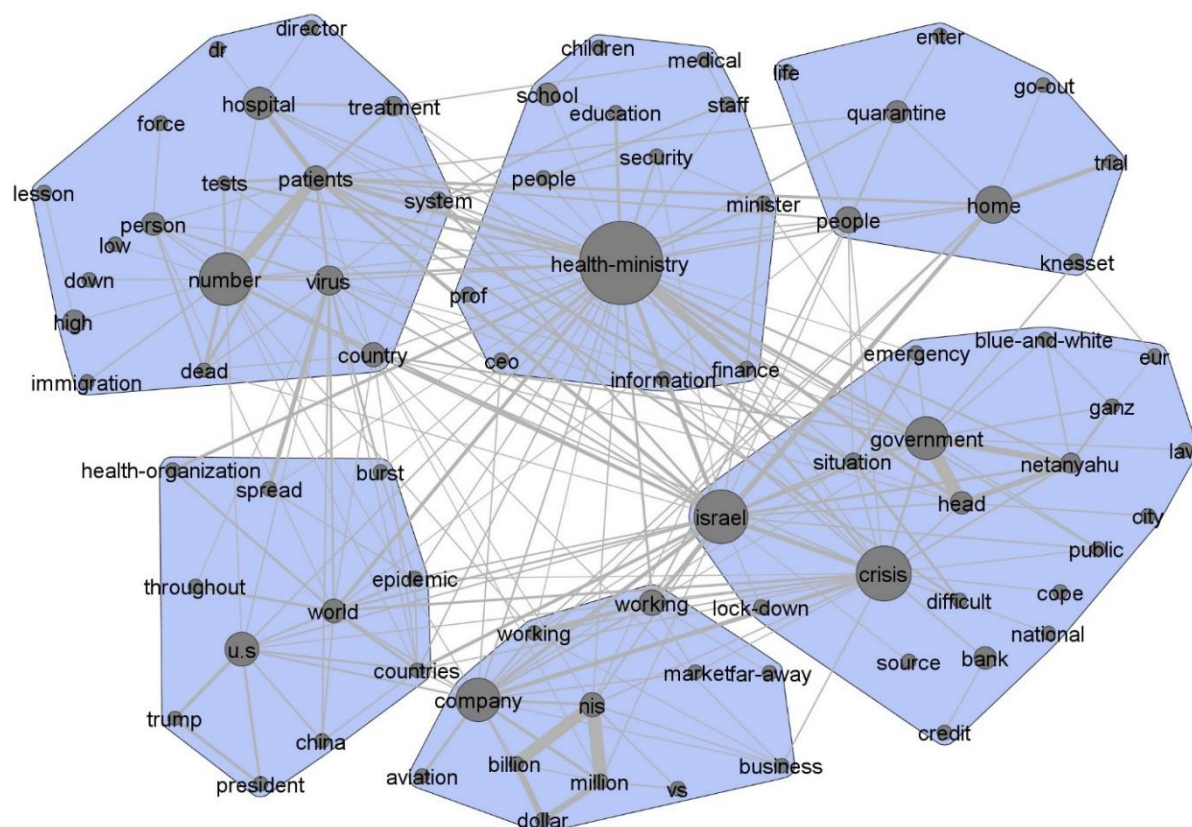
Finally, a codebook was constructed to identify foreign nations mentioned by policy makers in their televised addresses. The sample included 14 televised addresses aired on Channel 11 between 15/03/2020 and 29/05/2020. These addresses routinely included statements by the Prime-Minister of Israel, the Health Minister, health policy makers such as the Director General of Israel's Health Ministry and the Minister of Finance. Each of these addresses were transcribed. Next, a codebook was used to identify all mentions of foreign nations. By identifying which nations were most frequently mentioned by policy makers, and comparing them with those nations frequently mentioned in news articles, this study was able to identify those nations that became archetypes. As was the case with news articles, the sentiment of policy makers' international comparisons was ranked on a sentiment scale. The sample included 45 sentences, in which 90 nations were mentioned. In several instances policy makers mentioned more than one nation. By identifying those nations that received positive or negative sentiment scores in both newspaper articles and policy makers' addresses this study was able to distinguish between positive archetypes, whose policies Israel should emulate, and negative archetypes, which served as cautionary regarding which policies should *not* be

adopted.

4. Findings

Network Analysis. Figure 1 portrays the network of all frequent words in *Haaretz* related to the coverage of “corona” during the first wave between 1 March 2020 and 31 May 2020.

Figure 1. *Semantic network of frequent words in covid-related news in Haaretz*



It features six distinctive clusters, corresponding to six different themes covered on Covid19 related newspaper articles. On the top-left is the national status of the pandemic. It evolves around the word “number” and also includes the words “patients”, “hospitals”, “tests”. These words represent the epidemiological elements of Covid19 as well as health measures, for instance, the number of patients in Israel and the number of Covid19 tests administered.

The second cluster on the top-middle focus on national institutions (e.g., ministry of health and education). These words reflect policy making and policymakers. There are references to various ministries, the national treasury and

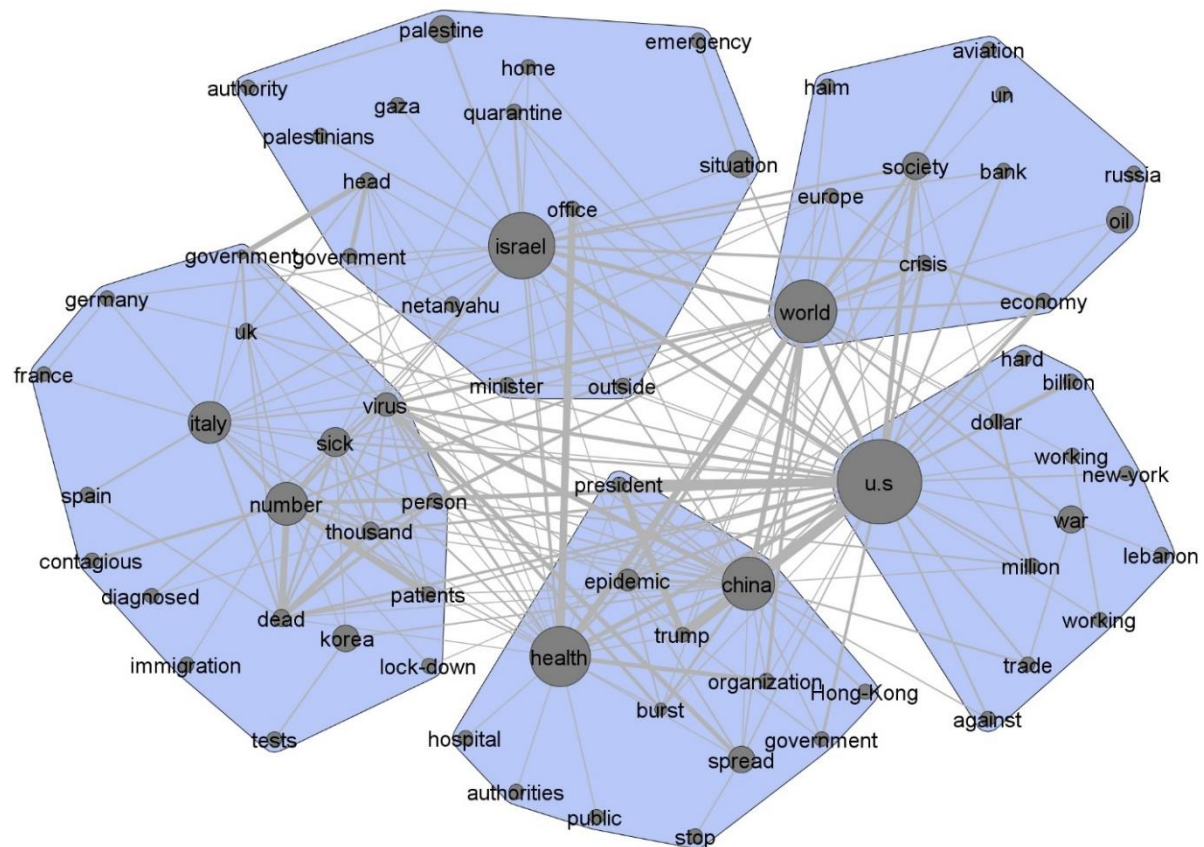
health staffers that are under the purview of the ministry of health. Another policy related cluster appears on the bottom-right and evolves around the word “crisis”. This cluster reflects the theme of the Israeli government, its main parties, and the steps taken to overcome the crisis caused by the pandemic.

The fourth cluster on the top-right reflects the personal aspect, with the central word “home” surrounded by “people”, “quarantine” and “go-out”. These words refer to the impact of Covid19 policies on individuals such as prolonged lockdowns, isolation, and everyday life. Another cluster that deals with the broader implications appears on the bottom-middle and focuses on the economic implications (with words such as “million”, “billions”, “dollar”, and “business”).

Finally, the global dimensions of the pandemic are represented in the sixth cluster on the bottom left with words such as “world”, and “WHO”. Certain nations such as “the US” and “China” are important nodes, but so are the terms “burst”, “spread” and “epidemic” which demonstrate the global dimension of this health crisis. The overall network of *Yedioth Ahronoth* presented identical themes. It featured five rather than six clusters, including the actual situation in Israel, the national policies and measures taken, the personal implications and the broader economic implications, which were connected in one cluster to the US and the international community.

Figure 2 focused on the country-specific network of words in *Haaretz* related to the coverage of “corona”. It is based only on sentences that mentioned foreign nations during the first wave between 1 March 2020 and 31 May 2020.

Figure 2. *Semantic network of frequent country-specific words in covid-related news in Haaretz*



It shows that each cluster of words evolves around a different central nation, but also emphasizes different themes related to these nations. On the top-middle the cluster on “Israel” deals with its own response to the Covid19 crisis, including its management (prime minister), policies (isolation) and neighbors “Gaza” and “Palestine”.

On the top-right a more general cluster evolves around the word “world”. It includes the economic implications with the words “economy”, “banks”, “oil” as well as the “aviation” industry and its particular effect on “Europe”. On the bottom-right is the cluster on “the US”, which also focused mainly on the economic implications, including Covid19 stricken areas such as “New York”, financial costs (e.g., “billions”, “employment”), and impact on trade and US-China trade War.

On the middle-bottom is a cluster featuring “China” at the center with a focus on the outbreak of Covid19, its “spread” from China to the world as well as Chinese

efforts to “stop” the outbreak. This cluster includes frequent references to US President Trump, who labeled China as a global threat that failed to warn the world of the dangers of Covid19.

Finally, the left cluster features mainly “failed” nations in Europe (e.g., “Italy” and “Spain”). These nations were dramatically affected by Covid19, and their national health services collapsed. It also includes the UK and France which had some of the highest death rates in Europe. This cluster includes epidemiological elements such as number of Covid19 tests or number of new cases.

The network in *Yedioth Ahronoth* presented similar division of clusters, where each cluster featured one or few central countries with a unique frame related to them. The US is mentioned mainly in relation to the economic impact of Covid19, China in relation to the cause of spread, while European nations are mentioned in relation to their large number of cases and inability to control the spread of the pandemic or offer effective policies.

The Media’s Creation of Archetypes. Table 1 lists the 10 most frequently mentioned nations in both newspapers.

Table 1. Frequency of Nations Mentioned in Haaretz and Yedioth

Haaretz			Yedioth		
Country	Mentions	% of the total	Country	Mentions	% of the total
US	116	16%	US	85	15%
China	82	12%	China	69	12%
Italy	73	10%	Italy	65	11%
Spain	60	8%	Spain	36	6%
Germany	40	6%	France	35	6%
France	39	6%	UK	33	6%
UK	32	5%	Germany	30	5%
S. Korea	24	3%	S. Korea	18	3%
Japan	24	3%	Japan	13	2%
Iran	23	3%	Russia	9	2%

As can be seen in Tables 1, there was great similarity between both newspapers as international comparisons focused mostly on the following nine nations: China, France, Germany, Italy, Japan, S. Korea, Spain, the UK, and the US. Moreover, in both newspapers, the four most frequently mentioned nations

were China, Italy, Spain, and the US. The only difference between both newspapers was that Haaretz articles also focused on Iran, while Yedioth articles often focused on Russia. These results begin to validate this study's second hypothesis as in both newspapers the same nations were used in international comparisons thus serving as potential archetypes.

Notably, as the pandemic progressed, the percentage of news articles that include international comparisons declined. Table 2 identifies the percentage of articles that included international comparisons in each newspaper over time.

Table 2. International Comparisons in Haaretz and Yedioth

Haaretz			Yedioth		
Month	number of articles	% of int. stories	Month	number of articles	% of int. stories
March	205	53%	March	220	49%
April	100	52%	April	107	41%
May	100	49%	May	100	43%

It is possible that as the pandemic progressed, the policy measures taken by foreign nations began to resemble one another (e.g., social distancing, quarantines) leading to a decline in international comparisons. It is also possible that as the number of Covid19 cases in Israel grew exponentially, both newspapers focused more on domestic issues as opposed to international comparisons. That said, even during May 2020, more than 43% of all articles in Haaretz and Yedioth included international comparisons. This lends credence to our assertion that the news coverage of Covid19 was based on comparing Israel with foreign nations. Table 3 below includes the results of the thematic analysis.

Table 3. Classification of News Articles by Themes

	Fiscal Crisis	Health Crisis	Fake News	Sports	election	Statistics	Personal Stories	Teaching	National Security	<i>n</i>
Haaretz										
US	47%	20%	2%	1%	4%	7%	12%	4%	5%	116
China	43%	20%	2%	0%	4%	10%	8%	4%	8%	82
Italy	33%	22%	3%	5%	3%	12%	15%	4%	4%	73
Spain	20%	37%	0%	20%	0%	13%	7%	3%	0%	60
S. Korea	17%	25%	4%	0%	4%	25%	4%	8%	13%	24
Japan	21%	21%	4%	8%	4%	21%	8%	13%	0%	24
Yedioth										
US	33%	42%	1%	5%	2%	1%	12%	1%	2%	84
China	26%	53%	0%	4%	1%	1%	13%	0%	1%	68
Italy	16%	44%	0%	13%	0%	5%	19%	0%	3%	62
Spain	6%	55%	0%	25%	0%	6%	6%	3%	0%	36
S. Korea	22%	67%	0%	5%	5%	0%	0%	0%	0%	18
Japan	41%	25%	0%	25%	0%	0%	8%	0%	0%	12

As can be seen in Table 3, Haaretz articles including international comparisons were more diverse as in addition to financial and health issues, news articles often dealt with the number of Covid19 cases (Stat theme) as well as testimonies from foreign nations (Personal Stories theme), managing education systems during the pandemic (Teaching During Covid theme), and National Security. By contrast, Yedioth articles focused primarily on financial and health issues as well as the pandemic's impact on international sports. That said, in both papers the majority of news stories focused on two issues: the financial ramifications of Covid19 and health related matters.

There was, however, an important difference between both newspapers as Haaretz news stories were more likely to deal with financial issues. We contend that this difference stemmed from the fact that the Haaretz sample included articles published in *The Marker*, Haaretz's financial magazine.

Once potential archetypes were detected, and characterized, this study examined which nations served as positive archetypes, and models that Israel should emulate, and which nations served as negative archetypes or cautionary tales whose policies should *not* be emulated. The results of this analysis may be seen in Table 4 below.

Table 4. Average Sentiment Score in Haaretz and Yedioth

Country	N (mentions)	Mean Sentiment	Country	N (mentions)	Mean Sentiment
Haaretz			Yedioth		
US	117	1.23	US	128	1.2
Italy	109	1.16	China	87	1.01
China	105	1.13	Italy	76	1.38
S. Korea	42	0.9	S. Korea	22	0.73
Spain	32	1.12	Spain	28	1.23
Japan	28	1.07	Japan	7	1

A comparison between Haaretz and Yedioth Ahronoth offers several insights. First, Yedioth tended to be less neutral in tone. For instance, while both newspapers mentioned the S. Korean case as positive, the average sentiment of such articles in Haaretz was 0.9 as opposed to 0.73 in Yedioth. Similarly, while in both newspapers Italy was discussed in a negative tone, the average sentiment in Haaretz articles was 1.16 as opposed to 1.38 in Yedioth. We maintain that these difference stem from the difference between both newspapers as Yedioth follows the tabloid model of journalism. Yet in both newspapers, articles dealing with Italy, Spain and the US tended to have a negative sentiment, while articles dealing with S. Korea tended to have a positive sentiment. Articles dealing with Japan were mostly neutral. Markedly, Haaretz articles about China tended to be more negative (1.13) when compared with Yedioth (1.01). In summary, this analysis supports H1 as archetypes, or frequently mentioned nations, were either models to emulate or cautionary tales.

How Policymakers Adopted Archetypes. Once positive and negative archetypes were detected, the frequency of foreign nations mentioned by policy makers in televised addresses was calculated. It should be mentioned that foreign nations were only mentioned by the Prime Minister and health policy makers such as the Director General of Israel's Ministry of Health or the Minister of Health. Financial policy makers, such as the Minister of Finance or the Director General of Israel's Ministry of Finance did not compare Israel with any foreign nation during televised addresses. In total we found that 90 foreign nations were mentioned during televised addresses. The frequency of these nations may be seen in Table 5 below.

Table 5. Frequency of Nations mentioned by Policy Makers

Country	Mentions	% of Total	Mean Sentiment
Italy	13	14%	1.78
US	11	12%	1.58
Spain	10	11%	1.8
S. Korea	6	7%	0.16
Sweden	6	7%	
Belgium	5	6%	
UK	4	4%	1.2
Germany	3	3%	0.66
France	3	3%	1.66
India, China, Brazil, Austria, EU	2	2%	
New Zealand, Taiwan, Australia, Palestine, Estonia, Greece, Cyprus, Holland, Ireland, Switzerland, Portugal, Luxemburg, Canada, Denmark, Mexico, Peru, Iran, Turkey, Egypt	1	1%	

Table 5 demonstrates that of the ten most frequently mentioned foreign nations, seven were also frequently mentioned in newspaper articles including: France, Germany, Italy, S. Korea, Spain, the UK, and the US. Unlike news articles, policy makers also mentioned Belgium and Sweden, citing the fact that Belgium was similar to Israel in terms of population size, while also passing judgment on Sweden's unique approach to the pandemic (note: due to a small number of references, the tone of statements referencing Belgium and Sweden was not calculated). Unlike news articles, policy makers did not frequently mention China or Japan. These results validate H2 as seven nations emerge as archetypes or foreign nations that were frequently mentioned by newspapers and policy makers and to which Israel was compared in terms of policy and spread of Covid19.

Table 5 further includes the average sentiment score of the seven archetypes identified. As can be seen, policy makers clearly created positive and negative archetypes as they invoked a very positive or very negative sentiment. France, Italy, Spain, and the US emerge as very negative archetypes with average sentiment scores ranging from 1.58 to 1.8. S. Korea and Germany emerge as positive archetypes with average sentiment scores ranging from 0.16 to 0.66. Only the UK obtained a relatively neutral average sentiment of 1.2.

Crucially, statements made by policy makers demonstrate how archetypes served as models to emulate or cautionary tales. The two quotes below offer an example of a positive archetype- S. Korea:

"Israel will very soon reach a daily average of 1,000 (Covid) tests per capita, as is the case in S. Korea which is the champion of (Covid) tests"- Director General of Israel's Health Ministry, 16/3/2020

"To my knowledge, this is the largest number of (Covid) tests in the world, even more than S. Korea. In S. Korea there are 15 thousand (Covid) tests per day on a population that is 5 or 6 times our size"- Prime Minister Benjamin Netanyahu, 17/3/2020

Conversely, the two quotes below demonstrate negative archetypes such as Italy and Spain:

"We understand that the scenarios playing out in Italy, Spain and other countries can also happen here. Our ability to avoid such extreme scenarios rests on your behavior"- Director General of Israel's Health Ministry, 17/3/2020

"If anyone thinks I am over-reacting, look at the images coming from Spain and Italy. Look what's happening there. Look at the health teams that no longer care for the living but load corpses onto special trucks"- Prime Minister Benjamin Netanyahu, 17/3/2020

To examine H3, regarding the media's ability to set policymakers' agenda, Figure 3 shows the level of media coverage, Prime Minister (PM) and Health Minister (HM) press releases, and the adoption of policies in Israel on diverse topics. It shows that the news media were first to cover each topic and only then was it mentioned by official press releases followed by actual policy making. For instance, news coverage of lockdown in other nations preceded the Prime-Minister's discussion of lockdowns in other nations such as New Zealand, which preceded the actual first lockdown implemented in Israel on March 25, 2020.

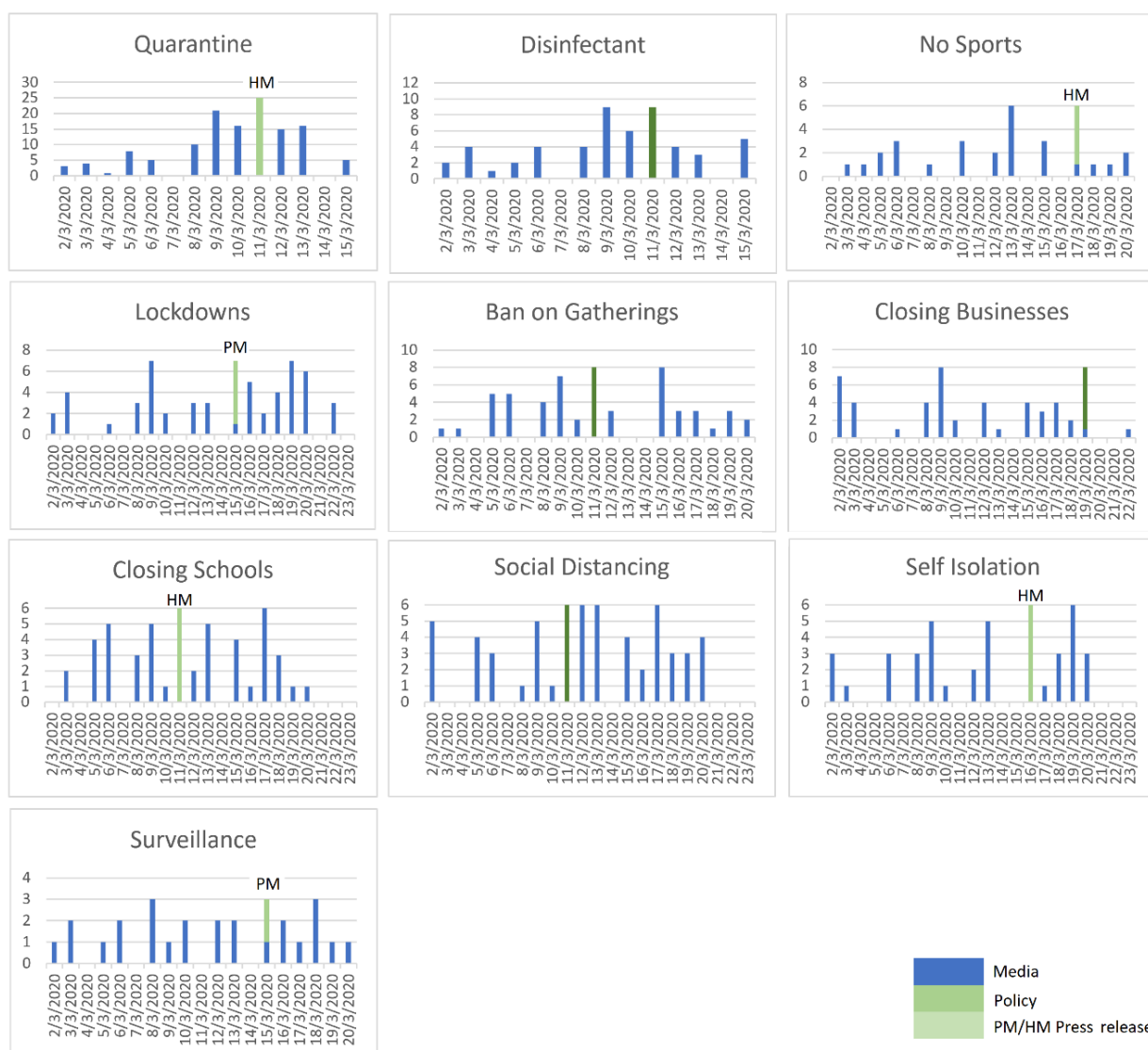


Figure 3. Media coverage of covid-related policies, Prime Minister (PM)/Health Minister (HM) press releases and actual policies during the first two weeks of March 2020

Note: The number of news items are marked in blue lines, dates of Prime Minister and Health Minister press releases are marked in light green, dates of actual policies are marked in dark green.

The importance of implementing quarantines was mentioned by the health minister on March 11, 2020, with a reference to European nations and the US. But quarantine policies around the world were already mentioned in the news from the beginning of March. A similar trend can be observed when looking at all other issues.

Most policies (such as social distancing, tests, masks, closing schools, businesses, and sport facilities) were adopted very quickly, already at the second week of March, following extensive news coverage other nations. The Israeli Prime-Minister was active in declaring drastic measures such as general lockdown or close of businesses, but also was the first to announce their end. He was also active in identifying ongoing preventive measures (such as wearing masks and conducting tests), together with the Health Minister who emphasized social distancing, quarantine, and self-isolation. It is important to mention that out of 33 press statements conducted by the Prime-Minister and the Health Minister, 30 of them (91%) referred to foreign nations to justify the measures and policies taken by the Israeli government.

5. Discussion and Conclusions

Crises are ill-defined situations whose management demands decision and policy making based on limited information, time constraints, stress and inter-governmental conflicts as ministries try to accumulate power (Allison & Zelikow, 1999; Boin, Hart, Stern & Sundelius, 2013; Cahill, 1996; Diehl, Reifschneider & Hensel, 1996; Garrison, 2001; Freedamn, 2014). During crises, the media may play a crucial role in policy making. Intense media coverage of a certain crisis impacts public opinion which, in turn, shapes policy measures taken by governments (Entman, 1991; Edy & Meirick, 2007). By narrating or framing a crisis, and identifying preferred solutions, the media can impact actual crisis management (McCombs, 2001, Weaver, 2007). That said, governments too can frame crises and, in some cases, government frames are adopted by the media (Gilboa, 2005; Livingston, 1997; Robinson, 1999). This is especially the case during security crises in which journalists tend to “rally around the flag” and support government frames (Lee and Yang, 1996). An important question is who shapes policymaking during a novel and unfamiliar crisis? Novel crises position the government at a disadvantage opposite the media as leaders and policy makers have no prior experience to draw on (Boin, Hart, Stern & Sundelius, 2013). Subsequently, media framing may shape the discourse adopted by policy makers, as well as the actual policies they implement. This study sought to examine the dynamic between media and

government framing during the first wave of the Covid19 pandemic, a novel crisis which can only be compared to the 1917 Spanish Influenza.

In order to map the main narratives of the Israeli media around Covid19, we first employed semantic network analysis. This helped us to identify the central actors mentioned, which include not only local government officials, but more importantly foreign nations such as the US, European countries, and China as well as international actors such as the World Health Organization. The network also enabled us to identify the main topics around which each country was mentioned. We found that while the US was mentioned primarily in relation to the economic impact of Covid19, European nations, particularly Italy and Spain, were mostly depicted as failing to manage the pandemic. The networks, the main actors, and the topics covered were similar across the two outlets, Haaretz and Yedioth Ahronoth.

Our first hypothesis stipulated that as Covid19 was a novel and global crisis, the Israeli media based its coverage on international comparisons highlighting the policy measures taken by other nations and assessing the efficacy of these policies. We also assumed that the media would focus on a certain group of nations and that these would lead to the creation of positive and negative archetypes, or nations that Israel should or should *not* emulate. Results demonstrate that a large proportion of Covid19 stories, published in two leading newspapers, did in-fact rely on international comparisons. Moreover, results demonstrate that Israel was compared to a group of nine nations. Furthermore, the sentiment analysis found that in both newspapers, some nations were covered in a positive tone while others were consistently covered in a negative tone. These results validate our first research hypothesis and offer insight into how novel, global crises are framed by the media. Specifically, the media creates positive and negative archetypes or success stories and cautionary tales. This finding constitutes an important contribution to the agenda setting theory (McCombs, 2001, Weaver, 2007).

Our second hypothesis was that policy makers would adopt the media's archetypes when discussing policy measures given that Covid19 was a novel crisis and the Israeli government had no past experience in framing global pandemics. This assumption was also validated as policy makers referenced the same nations covered extensively by the media. However, the tone used by policy makers when

making international comparisons was far more positive or negative, when compared to newspaper articles. This suggests that policy makers further cemented the status of certain nations as positive or negative archetypes. Hyperbolic or cataclysmic tones were especially used when introducing new restrictive measures. S. Korea was hailed as a world leader in Covid19 testing, while Italy and Spain were portrayed by policy makers as sights of unimaginable pain, sorrow and death. These results suggest that even if policy makers adopt media frames, they may manipulate these frames through emotional rhetoric given their need to justify and “sell” policy measures to the general public. These results are important to understanding how power struggles between governments and the media playout during novel, global crisis and thus constitute an important contribution to framing studies (Entamn, 1993; Entman, 2004).

It should also be noted that Israeli policymakers attempt to create their own archetypes was unsuccessful. For instance, Prime-Minister Netanyahu often referred to Belgium and Sweden in his addresses. Yet this did not impact media coverage of the pandemic as news stories did not focus on these nations. Thus, it seems that the government was unable to push its own frames down Entman's cascade (2004).

Finally, as we assumed, media coverage of various policy measures always preceded their discussion by policymakers. Newspapers were thus early adopters of international comparisons and evaluations of policy measures in other nations. Policymakers were late adopters and they only discussed policy measures once these had been highlighted by the media, a potent demonstration of the “CNN Effect”. Moreover, these results lend credence to our innovative use of the diffusion of innovation theory as that the concepts of early and late adopters can help account for government framing during times of novel crises (Hornik, 2010; Roman, 2004).

On the one hand, our findings echo those found in previous studies. On the other hand, this study offers four key new insights. First, during global crises, media framing may rest on international comparisons and, even more specifically, on the creation of positive and negative archetypes. Second, during novel health crises, policymakers may be at a disadvantage compared to the media. This indicates that

successful management of novel health crises requires that policymakers analyze media frames and then decide whether to adopt or contest these frames based on the policies they wish to implement. Third, government attempts to impact media frames must be a consolidated effort. For instance, while Prime-Minister Netanyahu sought to turn Belgium and Sweden into archetypes, these nations were not referenced by other policymakers such as the Minister of Health or the Director General of the Health Ministry. Thus, shaping media frames requires a whole-of-government approach where the same frames are echoed by all national policymakers in their public addresses. Finally, emotional rhetoric, which varies between hyperbole and catastrophe, can be used by policy makers to strengthen those archetypes created by the media. Yet such discourse is not without limitations. Emotional rhetoric may have long lasting implications on ties between states that outlive a given crisis. For example, it is hard to imagine that the Israeli public will be supportive of health collaborations with Italy or Spain now that these have been branded as catastrophes. Given that crises are by nature limited in duration, policymakers should consider the long term ramifications of adopting and amplifying media archetypes.

6. Policy Implications and Recommendations

The importance of this study is in examining an unfamiliar crisis and in tracing the interaction between the media and policymakers during such a crisis. In addition, unlike previous studies, this study focuses on the role of communication while combining framing and diffusion theories to examine how media coverage affects press statements of policy makers and the actual policy measures that they adopt. The innovative research methods, which combine automated discourse analysis using semantic networks and in-depth content analysis enabled a fuller understanding of this process. Finally, the importance of the study lies in the fact that it examines the coverage of the pandemic through the use of archetypes or success and failure frames. Our findings can therefore help policymakers to shape media discourse during future health crises by identifying and understanding the role of success and failure stories. In this way, policy makers can devise better strategies (a) to reduce media criticism of health policies by comparing Israeli

measures with those taken by positive archetypes, (b) to increase the length of time available to policy makers to decide on various measures by demonstrating that Israel is learning from the mistakes of negative archetypes (c) to adopt policies not discussed by the media by crafting their own archetypes.

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