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An exploration of coronavirus-related online antisemitism in Hungary using quantitative topic model and qualitative discourse analysis

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Abstract

Soon after the outbreak of the pandemic, antisemitism connected to the coronavirus appeared in the world. In our research we analyzed a large Hungarian online text corpus from December 1, 2019, to July 10, 2020 to examine whether coronavirus-related antisemitism was present in the Hungarian online space, and if so, what its content was. We differentiated between two layers of communication: the professionalized layer represented by online articles, and the lay one represented by comments and posts. After providing the conceptual background regarding conspiracy theories and conspiratorial- and coronavirus-related antisemitism, we present the mixed-method approach that we employed. This approach includes quantitative LDA topic models, human annotation, and the qualitative analysis of various discourses. Our research indicates that coronavirus-related antisemitism appeared in the Hungarian online space at the very beginning of the pandemic. However, at this time, until July, it was present almost solely at the lay level. Its content was mainly related to various tropes (conspiracy theories) about Jews. However, additional content was also identified. Based on our results and international examples, we propose a comprehensive typology that proved to be a suitable means of analyzing coronavirus-related antisemitic content.

Keywords: coronavirus, antisemitism, conspiracy theories, LDA topic modeling, Natural Language Processing (NLP), annotation

1. Introduction

The low level of personal control, uncertainty, and growing economic and social despair that have undoubtedly been present throughout the coronavirus pandemic increased belief not only in conspiracy theories in general (Van Prooijen & Jostmann, 2013), but Jewish conspiracy theories in particular (Kofta et al., 2020). Therefore, it was not surprising that simultaneously with the outbreak of the pandemic, conspiracy theories linking Jews to the virus appeared. Already by the end of March 2020, the Anti-Defamation League (ADL), which fights antisemi-

tism¹ and all forms of racism, was reporting cases from many places in the world where Jews, Zionists, or Israel had been accused of having developed or spread the virus (Anti-Defamation League, 2020b).

It is not unprecedented that Jews are accused of deliberately spreading diseases. The best-known example is the time of the Black Death (1347–1352), when Jews were accused of poisoning wells to spread the disease (Cohn Jr, 2007; Laqueur, 2008, pp. 60–62; Simonsen, 2020, p. 359). As described later, these examples have been followed by many others throughout history.

Our research examined a large text corpus of Hungarian-language online articles and comments/posts to scrutinize coronavirus-related antisemitism. It is well known that the internet is of paramount importance in disseminating conspiracy theories (Vicario et al., 2016; Slavtcheva-Petkova, 2016; Klein et al., 2018). This fact justifies an examination of online sources with regard to their prevalence and content. Additionally, in Hungary, as in other Visegrád countries, conspiratorial antisemitism is the most prevalent type (Kofta & Bilewicz, 2011; Kofta & Sedek, 2005; Barna et al., 2018; Kofta et al., 2020; Tarant, 2020).

Our corpus contains articles, comments, and posts written in Hungarian and published between December 1, 2019, and July 10, 2020, in which the different forms of the word coronavirus and that of Jew appear simultaneously. In our research, it was an important decision to keep the corpus of articles and that of comments and posts separate, as they represent different layers of communication. We treat articles as the professionalized and posts and comments as the lay channel of communication. We hypothesize that there will be a difference in the topics and discourses in these two layers. We know when the epidemic started, thus we have a 'zero-point' that makes the subject of coronavirus-related antisemitism particularly relevant in an exploration of the differences between these layers, and later, the interactions between them. Our paper aims to answer three research questions: (1) When did coronavirus-related antisemitic discourses appear in the Hungarian online space? (2) What is their content? and, (3) Are there differences between the different layers of communication?

As our corpus contained a vast amount of unstructured textual data, we used quantitative topic models from the field of Natural Language Processing (NLP) (Németh et al., 2020). First, we mapped the latent thematic structure of our corpus using LDA (Latent Dirichlet Allocation) topic models. Second, we used qualitative approaches to describe these topics and scrutinize the antisemitic narratives connected to the coronavirus pandemic. In the final step of our analysis, we created a comprehensive typology and used it as an analytical tool to scrutinize the coronavirus-related antisemitic discourses.

2. Conceptual and social context

2.1 Conspiracy theories

Defining conspiracy theories is not as simple and straightforward as it seems. According to Douglas and Sutton (2008), conspiracy theories are 'attempts to explain the ultimate cause of an event (usually one that is political or social) as a secret plot by a covert alliance of influential individuals or organizations, rather than as an overt activity or natural occurrence.' If one looks at representative surveys examining the prevalence of conspiracy theories, the

¹ In line with the International Holocaust Remembrance Alliance (IHRA), we spell antisemitism this way (IHRA, 2020).

large proportion of believers is striking. Scholars have identified three motives behind a belief in such theories. The desire to find a causal explanation and to understand the world is one form of epistemic motives. Existential motives are connected to a persons' desire to be safe and control their environment. Finally, social motives are motivated by the 'desire to maintain a positive image of the self or group' (Douglas et al., 2017, p. 538).

According to a nationally representative survey carried out in 2018 (Political Capital, 2018), a significant proportion of the Hungarian population believe in various conspiracy theories. The authors categorized such ideas into larger groups, like superstitions, non-political-, pro-Russian-, anti-government-, or antisemitic views and statements connected to a conspiracy mentality. The research revealed that these ideas are widespread, and political and non-political theories are strongly correlated. Political affiliation has the most substantial effect on most categories, excluding superstitions. For example, pro-government respondents tend to believe in anti-Muslim and anti-Western statements, and those related to George Soros. At the same time, leftists are more likely to agree with anti-government statements. While the highest average acceptance rate occurred in relation to conspiracy mentality statements (for example, 65 per cent of the population believe that 'Politicians often do not explain the real motive for their decisions'), the second-highest proportion concerns antisemitic theories. For instance, 49 per cent of respondents believe that 'Jews want to gain a decisive role in international financial institutions.'

2.2 Conspiratorial antisemitism

Alleged Jewish conspiracies have been present in anti-Jewish sentiments and antisemitism throughout history. Although anti-Jewish sentiments have been present since the very beginning of Christianity, the demonization of Jews intensified from the High Medieval Period onwards. 'It was claimed that the Jews operated as a collective and evil unit, secretly plotting against Christianity and Christian society' (Simonsen, 2020, p. 358). Besides other claims, like the accusation of ritual murder and host desecration, one of the enduring types of conspiracy theories also appeared at this time – the idea that Jews spread disease.

In the fourteenth century, Jews were held responsible for spreading leprosy, which in many places led to pogroms. Later in the same century, at the time of the Black Death, Jews were accused of poisoning wells to spread the disease. Both types of accusations led to brutal massacres of Jews, and, in some cases, to the expulsion of entire Jewish communities (Barber, 1981; Laqueur, 2008, pp. 60–62; Kaplan, 2011).

Enlightenment brought about considerable changes. Religion began to lose its all-pervasive power and influence in society; secularization was on its way. Religion, the central element of antisemitism, was replaced with race. 'For anti-Semites [...], the "polluted" racial character of the Jews served [...] as a basis for hating people whose distinctiveness could not readily be discerned. The unacculturated Jew was a visible enemy, the acculturated one [...] as insidious, camouflaged, coiled to strike at European society within' (Berger, 1986, p. 11).

At the beginning of the twentieth century, in Tsarist Russia, a forgery called the *The Protocols of the Elders of Zion* was published. This book became the basis for conspiracy fantasies about Jews who aimed at world domination and creating a New World Order. Contemporary conspiratorial antisemitism's central tropes can be traced back to the Protocols (Byford, 2011, pp. 49–57).

Racial antisemitism and conspiracies connected to Jews were widely exploited by the Nazis. Moreover, Nazi propaganda continued to use the image of Jews as spreaders of disease.

Connected to typhus, they argued that having any contact with Jews increased exposure to lice and thus to typhus. Consequently, Jews were portrayed as a dangerous threat to public health, which served as justification for enclosing Jews in ghettos (Grabowski, 2009). However, in Nazi ideology, conspiracy fantasies connected to biology appeared in a new way when Jews themselves were portrayed as parasites – as 'carriers of infection, germs, bacillus, microbes, etc., which attack the organism and poison it' (Burrin, 2013, p. 226). In the widely distributed film *Der ewige Jude* (The Eternal Jew), Jews were depicted as disease-bearing rats (Hartman, 2000; Grabowski, 2009). In this way, Jews were animalized and equated with organisms 'which are among the least anthropomorphous in the animal kingdom' (Burrin, 2013, p. 227). The animalization and demonization of Jews has played an essential role in spreading even the most absurd conspiracy theories, since the latter allows people to depict Jews as non-human beings about whom anything is conceivable, and with whom anything can be done.

The relationship between Jews and disease remained the basis of numerous antisemitic conspiracy ideas after the Holocaust. To mention a few examples, in 1953 a series of show trials were held against Jewish doctors in the Soviet Union, in which they were accused of murdering prominent communist leaders (Rapoport, 1991). Also, Jews have often been blamed for using viruses and diseases (especially HIV or AIDS) for their evil purposes. Among the accusers, we find various actors: Hamas leaders (The Times of Israel, 2017), ministers and representatives of the Palestinian Authority (Wistrich, 2002, p. 34; Karsh, 2006, p. 9), other Arab leaders (Wistrich, 2002, p. 31; 2010), black extremists (Los Angeles Times, 1988; Wistrich, 2010; Heller, 2015), and media personalities (Wistrich, 2010).

In Hungary, the measurement of antisemitism based on surveys with nationally representative samples dates back to the mid-1990s, and surveys have been carried out regularly ever since (Kovács, 1996; 2002; 2011; 2012). Using the same methodology, Medián Public Opinion and Market Research Institute, commissioned by the Action and Protection Foundation, has conducted annual surveys on antisemitism between 2013 and 2018 (Action and Protection Foundation, n.d.). Moreover, in 2020 the Action and Protection League conducted a survey on antisemitism in 16 European countries including Hungary. The research was led by András Kovács.

According to this latest poll, 42 per cent of the Hungarian population harbored antisemitic prejudices; 18 per cent were labeled moderately, while 24 strongly antisemitic. When measuring the content of antisemitism, various types of antisemitism are examined, such as religious anti-Judaism, conspiratorial-, secondary-, and new antisemitism. In 2020, 39 per cent of respondents agreed with the statements that: 'There is a secret Jewish network that influences political and economic affairs in the world.' Almost the same proportion of respondents (38 per cent) thought that 'Jews have too much influence in Hungary.' Moreover, little more than one-fourth of respondents (27 per cent) believed that 'Jews are more inclined than most to use shady practices to achieve their goals.' Comparing this data to the prevalence of other types of antisemitism, it can be stated that conspiratorial antisemitism is the most widespread type in Hungary (Kovács & Fischer, 2021).

2.3 Coronavirus-related antisemitism

Antisemitism connected to the coronavirus appeared very early during the pandemic. In an interview with The Times of Israel, Alex Friedfeld, a researcher with the Anti-Defamation League's (ADL) Center on Extremism, claimed that antisemitic conspiracies connected to COVID-19 began to spread as early as in January 2020 (The Times of Israel, 2020a). Many

of the countries involved belong to the Arab world (for example, Egypt (MEMRI, 2020a), Syria (MEMRI, 2020a), Iraq (MEMRI, 2020b), Jordan (MEMRI, 2020c) Yemen (Anti-Defamation League, 2020c), Lebanon (MEMRI, 2020d), Saudi Arabia (MEMRI, 2020a) and, not surprisingly, Iran (Anti-Defamation League, 2020c; The Jerusalem Post, 2020b) can also be mentioned here. In these countries, high-profile state and government officials have repeatedly formulated antisemitic conspiracies related to the pandemic. At the time of writing, only one similar case had occurred in Eastern Europe – when far-right Polish MP Janusz Korwin-Mikke compared the coronavirus to pogroms against Jews, which were good for them as they assisted natural selection (The Jerusalem Post, 2020a).

A little later, starting in March 2020, the spread of coronavirus-related antisemitism was documented on social media platforms like Facebook, Twitter, and Reddit. Moreover, conspiracies were also propagated on Telegram and Gab, which are favorite platforms among extremists banned from mainstream social media (Anti-Defamation League, 2020a; Ehsan, 2020).

In April 2020, anti-lockdown protests began. In Ohio, some demonstrators held up antisemitic pictures showing a blue rat with the Star of David painted on its side and the words 'The Real Plague' (cleveland.com, 2020). At protests against measures and restrictions, Holocaust trivialization (Gerstenfeld, 2007) was a frequent phenomenon. In May, in Chicago, a protesting woman held a sign that read 'Arbeit macht frei, JB²' (BuzzFeed News, 2020). It also happened several times – for example, in Idaho (Boise State Public Radio, 2020), Illinois (BuzzFeed News, 2020), and Michigan (The Times of Israel, 2020b) – that state governors were compared to Hitler at anti-lockdown protests or, as occurred in Idaho (The Independent, 2020) and Pennsylvania (The Philadelphia Inquirer, 2020), directly by their political opponents.

Holocaust trivialization also appeared in Europe. In Germany, at anti-lockdown and anti-vaccination protests, '[m]any protesters pinned yellow Stars of David to their chest to suggest that they are victims of persecution similar to that suffered by Jews during the Nazi era. The stars often say "vaccination will set you free" in reference to the cynical Nazi slogan "Arbeit macht frei" (Jikeli, 2020, p. 9). One case went viral on the internet: when an anti-lockdown protester in the German city, Hannover, compared herself to Sophie Scholl³ (Deutsche Welle, 2020a). At another gathering, an 11-year-old girl explained that she felt like Anne Frank as she had to 'celebrate her birthday in secret in order to avoid being snitched on by the neighbors' (Deutsche Welle, 2020b).

The phenomenon of antisemitism and Holocaust relativization in the wake of the coronavirus pandemic has been addressed by several organizations (European Jewish Congress, 2020; European Union Agency for Fundamental Rights, 2020; World Jewish Congress, 2020). Moreover, the seriousness of the phenomenon is clearly illustrated by the fact that the European Union has specifically addressed the rapid spread of antisemitism related to the pandemic, besides other forms of disinformation. However, due to the relatively short time since the outbreak, there have been only a few academic publications on the topic (Jikeli, 2020; Teter, 2020).

² JB refers to Illinois governor, JB Pritzker, who is of Jewish descent.

³ Sophie Scholl was one of the founding members of the White-Rose non-violent resistance group in Nazi Germany between 1942 and 1943. The latter wrote and printed anti-Nazi flyers and distributed them in several major cities in Germany and Austria. She was found guilty of high treason, along with her brother and another member of the organization. As a result, they were executed in 1943.

⁴ European Commission, 2019.

3. Corpus and methodology

3.1 The corpus

In our research, we analyzed articles and comments written in Hungarian on various web- and social media sites between December 1, 2019, and July 10, 2020. We used the SentiOne social listening platform to obtain our corpus, which gathers content from thousands of websites, blogs, forums, and social media platforms, making them searchable using keywords and metadata. We created two sub-corpora by using a complex query: we downloaded all articles and comments that contained the word 'Jew' and the name of the coronavirus simultaneously in any form. Our first sub-corpus contains comments and social media posts, while the second contains articles. Although we used the same set of keywords to acquire both, we kept these corpora separate. This separation is essential for both analytical and methodological reasons. We have already dealt with the analytical reasons in the Introduction. From a methodological point of view, the separation is justified because articles and comments differ very much in average length and style. Therefore, it is advantageous to run separate topic models on them.

Using the query mentioned above resulted in a lot of content that was not interesting, as it included texts with content about Jews and the coronavirus that was not at all antisemitic. Before running the models, we wanted to get rid of this noise. However, there were two types of noise; one could be easily identified, while the other required a more sophisticated approach. Let us see the first. After the initial analysis of the two downloaded corpora, we found that comments and posts containing antisemitism could be found on almost any website or platform. However, in line with our preliminary assumption, there are outlets on which such articles with such content certainly do not appear. Thus, in the case of the articles we filtered out these websites, such as HVG.hu, 24.hu, and Index.hu (which are the among largest independent online newspapers in the country), and some Jewish portals (for example, Neokohn.hu and Zsido.com). It is important to point out that in this process we only removed those outlets that we know well, and on which it is certain that no antisemitic content could appear. On the list of the remaining portals, mostly right-leaning and far-right both national and regional portals are found, such as the far-right Nemzeti.net and Kuruc.info, and the rightwing Mandiner.hu, Magyarnemzet.hu, and Origo.hu. There are also some Hungarian websites from neighboring countries, like Ujszo.com and Felvidek.ma in this sub-corpus. As mentioned above, identifying meaningful content also required a more sophisticated step: the human annotation of the texts and selecting topics that most probably contain antisemitic content. This procedure will be described in detail later.

⁵ SentiOne uses ongoing scraping and provides access to data for the past three years from the date of download in compliance with GDPR regulations.

⁶ We used the following queries: (korona[corona]* AND vírus* AND zsidó[Jew]*) OR (koronavírus* AND zsidó*) OR (zsidó* AND covid*) OR (zsidó* AND vuhan[Wuhan]*) OR (zsidó* AND sars*) OR (zsidó* AND 2019-ncov*). Asterisks mean that these words could have appeared by themselves, as part of other words, or in inflected forms in order for a document to be treated as a valid finding.

⁷ This sub-corpus contains 11,593 comments and posts obtained from 88 websites and blogs. More than one-third of the content is from *Kuruc.info* (one of the oldest far-right portals in Hungary). Among the five largest sites, *HVG.hu* (one of the largest independent, left-leaning news sites), *Facebook*, and *PestiSrácok.hu* and *Vadhajtások.hu* (the latter are two radically pro-government portals) can also be found, responsible for more than 82 percent of the corpus' documents together with *Kuruc.info*.

⁸ The article corpus contains 1,702 documents from 270 websites.

There was another issue we had to address. Due to the extraordinarily centralized and controlled nature of the Hungarian media (Bajomi-Lázár, 2017; Krekó & Enyedi, 2018; Leonárd et al., 2019; Polyák, 2019; Griffen, 2020), much duplicate content appears – for example, on the various pro-government websites owned by CEPMF, especially on regional news sites. In this research we aimed to examine the content of coronavirus-related antisemitic discourse, not the impact certain websites or groups of websites achieve. Keeping these duplicates would have negatively affected the performance of our models and would have worsened model interpretability. Therefore, we removed them manually with the help of an initial topic model, keeping only one copy of such content. The final corpora used for annotation contained 11,593 posts and comments and 1,702 articles after the so-called preprocessing phase, which is required for the topic modeling algorithm to perform properly.

3.2 Topic models

As we needed to analyze vast amounts of textual data, it was necessary to employ automated text analytics methods; namely, topic models as used in Natural Language Processing. Latent Dirichlet Allocation (LDA) in an unsupervised¹¹ statistical model aims to unfold the latent thematical structure of a given textual corpus. LDA's base concept is that (1) every document is a mixture of a number of topics; and, (2) every word in a document can be assigned to one or more topics. Thus, LDA detects the co-occurrence of words based on two assumptions: a given topic can be characterized by the words assigned to it, and a document that belongs to a given topic is more likely to contain the words assigned to that topic (Blei et al., 2003; Blei & Lafferty, 2009; Németh et al., 2020, pp. 55–56; Németh & Koltai, 2021, pp. 14–16). Using LDA, the researcher must decide the number of topics before running the model, which is often a challenge. We used the so-called topic-coherence metric (Röder et al., 2015) to decide the number of topics appropriate for the given corpus. We also evaluated the models based on their interpretability. To create the models, we used the LDA Mallet implementation (McCallum, 2002) via the Gensim Python package (Řehůřek & Sojka, 2010).

In our research, we used topic models for two purposes: (1) to select topics containing a lot of coronavirus-related antisemitic content; and, (2) to map the latent thematic structure of the filtered corpus. For the first goal, the use of topic models was combined with human annotation.

⁹ The Central European Press and Media Foundation (CEPMF or KESMA in Hungarian) is a foundation created by the Hungarian government in 2018 that owns more than 450 pro-government media outlets.

During the preprocessing phase, the raw text is transformed into text suitable for running the models of Natural Language Processing. For this research, we (1) lemmatized the text, keeping only adjectives, adverbs, nouns, and proper nouns, (2) ran a Named Entity Recognition algorithm, (3) ran significant bi- and trigram detection, (4) removed stopwords that would not be meaningful in the model, and (5) removed overly short, overly rare, and overly common words. During these steps, the length of the documents was reduced. Since LDA, the topic model we used, is not able to deal with excessively short texts, we removed every document of less than five words in length.

¹¹ In the case of unsupervised machine learning methods – as opposed to supervised algorithms – the input data does not contain variables or labels added by human annotators that can be used for classification. Unsupervised methods look for previously undetected patterns in the dataset and use no to minimal human supervision.

3.3 Annotation

As already mentioned, we used human annotation to label our documents. To do this, we worked together with fourteen university students. In the first step, annotators participated in online training. They were introduced to the research topic – namely, antisemitism, and emphasis on conspiracies connected to Jews. Next, researchers presented the aim and the methods of the research. Finally, the researchers described the annotators' tasks. We used a simple coding scheme, distinguishing four different types of content: (1) coronavirus-related antisemitism, (2) antisemitism not related to the coronavirus, (3) content that does not contain antisemitism, (4) 'I cannot decide.' Annotation started with a pilot phase whereby the researchers closely followed the annotators' work; mistakes were identified and thoroughly discussed. Moreover, all documents coded with (4) were assigned to the proper category by the researchers and discussed with the annotator. This procedure remained in effect throughout the annotation process. In this way, the use of this coding scheme had a positive impact on the quality of annotation and provided an opportunity to train the annotators further.

The annotation was carried out on two topic models. The first one, with 26 topics, was created on the first sub-corpus containing comments and posts, while the second one, with 21 topics, on the domain- and duplicate-filtered version of the second sub-corpus containing articles. Every annotator received one topic at a time and annotated, on average, forty percent of the documents in that topic. Furthermore, in the case of the posts and comments, at least 100, and in the case of the articles, at least 20 documents were annotated in each topic. According to how well they represented the given topic, documents were sorted in descending order, meaning that at the 'beginning' were documents very much characteristic of their topic, while at the 'end' were documents less typical of the given topic. Half of the annotated documents were from the beginning of each topic, while the same number from the end. Furthermore, annotators received the raw text of the documents without images and formatting. However, we included the link to the original source to enable checking of the context of a comment in case it was ambiguous. Annotators were instructed to visit the original source only if it was absolutely necessary.

In the case of the first sub-corpus, annotation revealed four topics in which the proportion of coronavirus-related antisemitic content was relatively large. In our final analyzed corpus of posts and comments, we included all documents from these four topics and all documents labeled by annotators as (1), meaning that they contained coronavirus-related antisemitism. This procedure yielded 2,743 posts and comments overall. Using this final corpus, we ran additional topics models based on the interpretability of the topics and the abovementioned coherence metric. We decided to use a model with 12 topics for our analysis. However, according to the annotation, the proportion of documents containing coronavirus-related antisemitism was very small in all topics in the case of the articles. Therefore, we did not create a new model for the analysis. Rather, we went on to further analyze the one used for annotation purposes.

4. Results

As mentioned earlier, first, we examined the latent thematic structure of the corpus of comments and posts, and then that of the articles. Second, based on the literature and the results

We are very grateful to the BA students who did the annotation.

¹³ The proportion of such content ranged from 11 to 31 percent of annotated documents in these topics.

of the first step, we created a comprehensive typology and used it as an analytical tool to scrutinize the coronavirus-related antisemitic discourses.

4.1 The latent thematic structure of the corpus

In the case of the comments and posts, we created twelve topics, as mentioned earlier. Thanks to the pre-filtering of the corpus, we found a large proportion of antisemitic content in basically all topics. However, it was not uniform what amount of coronavirus-related antisemitism they contained.

4.1.1 Comments and posts

There were four topics in which antisemitism connected to COVID-19 prevailed. One of these topics deals with the role of China and the US in the pandemic, with the US allegedly being ruled by Jews. The coronavirus is portrayed many times as a biological weapon of the US, and ultimately that of the Jews, against the Chinese. This conspiracy myth is indicated by the frequently used expression 'Jewsa' (zsidó USA).14 Although some comments identify the responsibility of the Chinese, most of the comments hold the US responsible. With regard to this topic, there are many comments from the beginning of the pandemic when the US was not yet affected; thus, it was still plausible to believe in the latter's responsibility. Conspiracies connected to Bill Gates (BBC News, 2020) and Dr. Charles Lieber (Reuters, 2020) are present. In these comments, Bill Gates, who is not of Jewish descent, is, of course, portrayed as a Jew. According to this topic, Americans and Jews are using the coronavirus to defeat their enemies and economic competitors. Another topic characterized by the strong prevalence of coronavirus-related antisemitism concerns the disease itself. Here, it is often claimed that the coronavirus, like other diseases in the past, was created by the Jews for financial profit or to help them rule the world, or, on a local level, Hungary. However, we also find comments that portray Jews as the virus itself, or as parasites that spread the virus. In the next topic in this group, no specific issues are found. Instead, the only thing that characterizes almost all the comments here is their overtly antisemitic nature. According to the latter, the Jews and Israel developed or spread the virus and caused the pandemic for various reasons: financial gain, world domination, or - according to one of the comments - as Jews' revenge on non-Jews. The last topic among those containing much coronavirus-related content deals with various global issues, such as climate change and global warming, along with the pandemic. Some of the comments here make not only the Jews but also the Chinese responsible for the virus. These comments use the following phrases about the Chinese: 'yellow Jews,' 'the Jews of the East.' In these, the adjective Jewish appears as a measure of the degree of evil. Interestingly, we find many ironic comments in this topic. The reason is most probably the fact that this topic is associated with very absurd conspiracy ideas, and ironic comments caricature and make fun of just these.

The next group of topics includes those in which, although there is still a significant proportion of antisemitism related to the coronavirus, we find many 'simply' antisemitic comments. There are three topics in this group. One of them deals with foreign and world politics, of course using the language of conspiracy theories. There are comments and posts about the power secretly running the world, and about the New World Order. Bill Gates and George Soros are frequent actors in these texts. One of the topics in this group deals mainly with the nature of the virus, quarantine regulations, and the protective measures certain countries,

¹⁴ Although there are those who use the English term, use of the Hungarian one is more common.

including Hungary, are taking against the coronavirus and how good they are. Expressions about Jews include 'Jewish coronavirus,' 'large Jewish pharmaceutical companies,' and 'the Jewish pharmaceutical business.' We also find comments from Kuruc.info¹⁵ here connected to Holocaust denial that use the world *holokamu* ('holohoax') and make 'ironic' remarks about the six million Jews that were killed in the Holocaust. In this group, we find a topic that mainly deals with the Hungarian coronavirus situation. Many comments and posts in this topic are irrelevant to us now. However, those that are not irrelevant mostly talk about opposition politicians, some of them allegedly Jewish, who are helping the Jews profit from the pandemic. Finally, the last topic in this group is very much connected to Israel. Jews are equated with Israel and Zionists who are developing and spreading the coronavirus to rule the world. Some comments argue that using migration for the very same purpose did not prove to be successful enough; therefore, Jews created the coronavirus.

There are three topics that are overtly antisemitic; however, their content is rarely connected to the coronavirus. These topics are closely related to the Hungarian situation, including that of the health system and Hungarian politics. Finally, there is a topic that is also only loosely tied to the pandemic, but which is very different in content from any other topic. It contains nothing but obscene and vulgar text. In this topic, the words 'Jew' and 'Gypsy' are used as swear words. The topic contains many comments from the pro-government website *vadhajtasok.hu*, which is known for using radical, far-right language.

4.1.2 Articles

The annotation of the articles showed that most of the articles containing our search terms were not antisemitic and thus were not characterized by coronavirus-related antisemitism either. Therefore, we analyzed the initial topic model with twenty-one topics in this case.

A detailed analysis of the topics showed that antisemitic content, and consequently coronavirus-related antisemitism, was relatively rare. We expected this result based on the annotation. However, this was surprising if we consider that the corpus of articles contained only those domains where there was a chance for antisemitic content to appear, especially considering that a substantial proportion of the articles came from various radical and far-right portals.

We were able to identify several antisemitic articles, but the topics were mostly a mixture of antisemitic and non-antisemitic content. However, what is striking is that four topics out of the twenty-one deal with George Soros. Knowing about the government's anti-Soros campaign (Barna, 2019; Kalmar, 2020; Plenta, 2020), it is not surprising that, in addition to the traditional far-right portals (for example, *kuruc.info*, *and nemzeti.net* [national.net]), these topics also involved articles from radical pro-government news sites such as *origo.hu*, *vadha-jtasok.hu*, and *pestisracok.hu* (boysofpest.hu). Three out of the four topics dealing with Soros are about the 'standard' issues of the anti-Soros campaign. However, in one of the topics,

¹⁵ Kuruc.info is one of the oldest and most commonly visited Hungarian far-right, nationalist news portals. Kuruc.info was the tenth largest news site in 2018, with 10 percent of the population at least occasionally visiting the portal (Mérték Media Monitor, 2018, p. 36). The website has sub-pages named 'Anti-Hungarianism,' 'Holohoax,' 'Gypsy-crime,' 'Jewish-crime,' and harbors strong antisemitic and anti-Romani content. The name of the portal involves strong symbolism, since 'Kuruc' is the name of the armed rebels who fought for independence from the Habsburgs.

¹⁶ Examples: Soros is a stock-market speculator whose aim is to exploit the unstable economic situation caused by the pandemic. There are 'Soros organizations and foundations whose aim is to attack and discredit Hungary and the Hungarian government. There is an international smear campaign against Hungary directed by Soros.

Soros is described as someone who financially benefits from the pandemic. Moreover, some of these articles directly refer to Soros' Jewish origin by mentioning that he was shamefully involved in confiscating Jewish goods during the Holocaust. Furthermore, these pieces were published on the aforementioned pro-government news sites, part of CEPMF, contradicting the government's frequent claim that they are not interested in the fact that George Soros is Jewish (Telex.hu, 2020).

4.2 A typology for analyzing coronavirus-related antisemitic content

In the next step of our analysis, we created a typology based on our results, as described above, and the aforementioned examples from around the world. Since our aim was to create a typology that could be used in an international context, we considered it important to include international cases that were not present in Hungary during the period under study.

We distinguished two primary dimensions. The first dealt with the various roles Jews can allegedly play, while the second addressed the aims they purportedly have. In this chapter, we describe the types and subtypes for each dimension, and provide examples of each. Where possible, the examples come from our own research, but some types were not present in our corpus.

4.2.1 Types of roles

We identified three types of roles. It should be noted that although there were many comments in which it was evident that the Jews were being blamed for the coronavirus, it was not clear what role they played; whether it was they who had created or spread the virus, or both. For example, commenters referred to the virus as the 'present from the God of the Jews' (Kuruc.info, 2020c)¹⁷ or 'Jewish subversive work' (Vadhajtások.hu, 2020a).

Jews created or engineered the coronavirus or contributed to its development

One of the central tropes of antisemitic conspiracy theories about the coronavirus is that Jews created the virus or were involved in its development. There are many examples of this in our corpus too. For example, when the virus is described as an 'artificial Jewish virus' (Kuruc. info, 2020m) or in claims that 'SARS-CoV-2 is an artificially created virus developed by the Jewish USA!' (Kuruc.info, 2020q).

Jews spread the coronavirus

The next common trope is that Jews spread the coronavirus. There was open reference to this in our corpus when a commenter, in connection with the pandemic, described Jews as 'well poisoners' (Kuruc.info, 2020l). In this type, the Nazi idea that Jews are the virus themselves or parasites that spread the virus appeared. Examples from our corpus included a description of Jews as 'infinitely vile, two-legged parasites' (Kuruc.info, 2020l) and 'not only parasites of the nation, but also pathogenic agents and spreaders of diseases' or 'the Jewish race as a parasite' (Kuruc.info, 2020j).

There is another sub-type here that involves the claim that Jews spread the virus by not complying with the measures and restrictions that have been imposed. In our corpus, these accusations came up in comments about Israel. For example, 'perhaps through their rabbinic scholars, they could also declare their further intentions with the coronavirus. Or perhaps

¹⁷ In the case of the examples in this chapter, the article under which the quoted comment appears is referenced.

persuade conservative Jews (who have two preoccupations: childbearing, and the study of the Torah) to adopt some hygienic norms now, not living in antiquity anymore' (Kuruc.info, 2020n).

Moreover, Jews can spread the virus in a figurative sense. According to these ideas, immigration, thought to be promoted by Jews, is a source of the pandemic. For example, one commenter claimed that the disease is spread by migrants who have been released into the country by 'retarded Jews' and their 'libsi¹⁸ buddies' (Vadhajtások.hu, 2020a).

We can also find examples in which the two roles described above are combined. For example, 'This has nothing to do with the Chinese. The virus escaped from a level 4 laboratory maintained by the Americans under the command of the Zionists. [...] In October, Bill Gates was in Wuhan' (Kuruc.info, 2020g). 'In the fall, there will be a "second wave" only if Rothschild manufactures and discharges it again' (Kuruc.info, 2020p). 'Interestingly, epidemic centers have developed in countries that stepped up against the USA, and the emerging money-cartel and world government' (Kuruc.info, 2020g).

Jews as victims

Various types of content are classified into this group. The first to mention is Holocaust promotion (Gerstenfeld, 2007), meaning that the coronavirus is portrayed as a tool for finishing the Holocaust, or implicitly referring to the Holocaust as a means of killing Jews. For example, a commenter claimed that a virus that combined the coronavirus and Ebola 'would lead to a massacre with six million dead wearing kippah in one or two months for sure' (Kuruc.info, 2020k), or when a commenter wrote that 'I would like to watch as the big-nosed jump into the furnace' (Kuruc.info, 2020f). There was a comment that ironically questioned whether Jews could also be victims of coronavirus, while simultaneously denying the Holocaust: 'the coronavirus won't even tickle those who have survived the gas chambers multiple times' (Kuruc.info, 2020b).

Three other types may be classified into this category based on international examples. However, there was no such content in our corpus. The first of the former was connected with calls for the coronavirus to be weaponized: in the US and the UK white supremacists and far-right extremists encouraged their members to spread the coronavirus among Jews (and in non-white neighborhoods) (ABC News, 2020; Ehsan, 2020). The next is when the virus is described as God's punishment of the Jews. For example, when Rick Wiles, a far-right American political commentator and conspiracy theorist, said, 'God is spreading the coronavirus in synagogues as a punishment for opposing Jesus' (Right Wing Watch, 2020). And finally, the coronavirus is seen as 'the precursor to societal collapse, revolution, and race war' (Anti-Defamation League, 2020a). Some extremists in the US who refer to themselves as 'accelerationists' believe that 'our current globally-connected, pluralistic society is irredeemable and "degenerate" (Southern Poverty Law Center, 2020). They hope that 'the coronavirus sparks the boogaloo, which many believe will create the opportunity to build a white ethnostate' (Anti-Defamation League, 2020a).

4.2.2 Types of aims

We distinguished four types of goals. It is important to note that there was content for which it was not possible to decide what the purpose of the Jews was according to the commenter. And there were also comments in which multiple goals were mixed.

¹⁸ The word *libsi* has been created by joining the words *liberális* (liberal) and *bibsi* (kike).

For financial gain

The first type included content claiming that Jews have spread and/or created the coronavirus for financial gain, in line with the most common stereotypes. For example, 'the Covid-19 disease was spread by Jews – moreover, it was inflated by them into a pandemic for financial gain' (Kuruc.info, 2020n) or 'I see these Hebrews are doing fine. They made a coronavirus, raking in more than \$100,000 billion' (Kuruc.info, 2020e). Bill Gates often appears in this type of content, and is portrayed as a Jew without exception. For example, one of the commenters addressed him by writing, 'You funded the creation of the virus; you also patented it so that no one but you could produce a vaccine' (Index.hu, 2020). Another interesting example was when the accusation was connected to Holocaust denial: 'Zionist Jewish vermin invented this coronavirus! It's a lie, like the Holocaust; it had to be made up in order not only to cause a crisis deliberately but also to collect the remaining money of common people. No coronavirus exists or existed' (Kuruc.info, 2020o).

For world domination, creating a New World Order

One of the foundations of antisemitic conspiracy theories is the assumption that Jews are striving for world domination. One of the comments claimed that 'the majority of those infected are Europeans and Americans, which EXACTLY CORRESPONDS to the direction of the #Freemasonary, #Jewish_Banking_Monetary_World_ELITE' (Vadhajtások.hu, 2020c). In this type of content, not only does the image of the Jew ruling over the world appear, but also over the Hungarians: 'All of them are shitty Jews enjoying power over the Hungarians' (Kuruc.info, 2020a). There were also cases when belonging to this type was not indicated by explicit content but only by implicit reference. For example, when COVID-19 was described as the 'Illuminati plan' (Kuruc.info, 2020h). Finally, in an interesting comment, it was argued that the Chinese had thwarted the plans of the Jews for world domination: 'Today, Jewish world domination aspirations are over! They are trying to settle migrants in Europe. They are trying with SARS-Cov-2 to stay in power, but they failed because China quickly fought off the biological weapon attack. It has experience because the US already used biological weapons in the Korean War!' (Panyi, 2020).

To overcome or destroy their enemies

In this group, there are texts in which commenters claim that Jews want to overcome or destroy their enemies using the coronavirus. These enemies may be ideological ones but are also economic opponents and competitors. For example, in a short comment one commenter wrote: 'The new reality: Jewish laws, vaccine, chip, a global government. You have to get used to it' (Kuruc.info, 2020i). Other examples include: 'Wuhan was an act of war on the part of Israel against China using the double agent Dr. Charles Lieber (who is Jewish and therefore particularly sensitive to Zionist influence if he is not currently under their control)' (Kuruc. info, 2020d) and 'interestingly, epidemic centers have developed in countries that stepped up against the USA, and the emerging money-cartel and world government' (Vadhajtások.hu, 2020b). In another comment, the prelude to COVID is described: 'In the past, the Jews wanted to bomb Iran's nuclear power plants, but the Yankees did not allow them!' (nlc.hu, 2020).

Coronavirus as Jews' revenge on non-Jews

Finally, we found only a few examples in which the coronavirus was portrayed as the Jews' revenge on non-Jews. In one of them, Jews were portrayed as a 'destructive power, the people of vengeance' (Kuruc.info, 2020c).

5. Conclusion

In our research, we examined a text corpus of articles and comments/posts from the Hungarian online sphere published between December 1, 2019, and July 10, 2020. These two types of content represented two different layers of communication: a professionalized and a lay channel.

Conspiracy theories have been part of religious anti-Judaism and antisemitism throughout the ages. Some of these conspiracy theories accused Jews of spreading disease. Initially, the Jews' supposed aim was a secret plot against Christianity and Christian society. Later, in the modern era, it was to gain control over the world and create a New World Order. Nazi ideology also built heavily on this set of stereotypes but added a new element by portraying the Jews themselves as rats or parasites.

Almost from the very beginning of the coronavirus outbreak, conspiracy fantasies connecting Jews to the pandemic appeared on the internet. These conspiracies were essentially based on previously known tropes. Our results show that these conspiracies were very quickly taken up in Hungary. However, it is important to stress that they appeared only and exclusively in the lay public; namely, in comments and posts. In the period under study, there was practically no trace of them in the editorial media, no matter how far-right.

This result also meant that it was certainly useful to distinguish between these two layers of communication. Moreover, we found that even 'ordinary' antisemitism was less prevalent in articles than expected based on our previous research (Barna & Knap, 2019). This means that when we used as search terms any words used to designate the virus in addition to the word 'Jew/s,' the proportion of antisemitic content decreased significantly. We hypothesize that although on the lay level these coronavirus-related antisemitic conspiracy theories had already begun to spread, they were not (yet) part of the manifest climate of opinion reflected in the media. However, we will only be able to test this hypothesis in the future. The study of coronavirus-related antisemitism offers an exceptional opportunity to examine such diffusion processes, as the onset of the pandemic is known, and thus we have a zero point.

Based on our own results and complemented by international examples, we have created a typology that is suitable for future research on this topic. In our typology we distinguished different types of roles and aims.

In the case of the coronavirus-related antisemitism, Jews appeared in three main roles. Two of these are quite clear. One is that Jews are the creators of the virus, or at least they participated in its development. The other is that they are the spreaders of the virus. In our corpus, we found numerous examples of both. However, the third role is less common: it portrays Jews as the victims – but not, of course, as victims for whom one should feel sorry. This type was often associated with Holocaust promotion, meaning that the coronavirus is portrayed as an instrument for finally completing the Holocaust. In terms of goals, the content was not always clear. However, when it was, those goals known from history reemerged: material gain, world domination, and the destruction of enemies.

In our research we analyzed the communications of a few months after the outbreak. Further research may clarify whether the identified antisemitic conspiracy fantasies persisted over time in posts and comments, and moreover, whether they appeared in articles.

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